Isothermal Community College

www.isothermal.edu

COLLEGE CATALOG
2017 - 2018

Rutherford Campus
286 ICC Loop Road, P.O. Box 804
Spindale, North Carolina 28160-0804
828-286-3636

Polk Center
1255 W. Mill St.
Columbus, North Carolina 28722-9445
828-894-3092

Rutherfordton Learning Center
134 Maple Street
Rutherfordton, NC 28139
828-286-2218

VOLUME XXXIII June, 2017

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MESSAGE FROM THE PRESIDENT

Welcome to Isothermal Community College—your community college. At Isothermal, we provide opportunities for people to be the best that they can be, and we do it at an affordable price. For over 50 years, we have been educating our students for transfer to four-year colleges; preparing our students for jobs through workforce training; working with industry on customized training; and providing opportunities in adult education, continuing education and technical education. In today's world, learning is truly a lifelong experience. And whatever your stage in life, Isothermal has something for you—something that will improve your future. At Isothermal, it is our mission to see you "Start Strong. Finish Stronger". This is your school, we invite you to take advantage of it and make the most of it. Welcome to the Isothermal family and we hope and trust this will be an exciting and beneficial experience.

Walter Dalton

ISOTHERMAL COMMUNITY COLLEGE BOARD OF TRUSTEES

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NONDISCRIMINATION STATEMENT

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

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

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

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ADMINISTRATIVE OFFICES

OFFICE OF THE PRESIDENT

President ..... Walter Dalton
Academic and Student Services ..... Dr. Dolly Horton, Vice President
Administrative Services ..... Stephen Matheny, Vice President
Community and Workforce Development, College Advancement and Director of Alumni Affairs ..... Thad Harrill, Vice President
Marketing and Community Relations ..... Mike Gavin, Director
Executive Administrative Assistant to the President and Director of Special Events ..... DeeDee Barnard

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Academic Development ..... Debbie Puett, Dean
Applied Sciences and Engineering Technology ..... Joe Looney, Dean
Arts and Sciences ..... Dr. Kathy Ackerman, Dean
Assessment, Planning and Research ..... Anne Oxenreider, Director of Institutional Assessment and Accreditation
Business Sciences ..... Kim Alexander, Dean
Foothills Nursing Consortium ..... Dr. Kelly Jones, Director
Health and Public Services ..... Dr. Johnny Smith, Dean
Licensed Practical Nurse Program ..... Dr. Kim Amos, Interim Director
Polk County Early College ..... Tamara Black, Liaison
Rutherford Early College High School ..... Emily Thomas, College Liaison

STUDENT SERVICES ..... Sandra Lackner, Dean

Enrollment Management ..... Diane Dickerson, Director
Financial Aid ..... Pamela Ellis, Director
Financial Aid/Veteran Affairs ..... Lisa Bridges,Counselor
Financial Aid ..... Reagan Bowman, Counselor
Intramural and Athletics ..... Chuck Summey, Coordinator
Powers Scholarship Program ..... Ruth Hils, Coordinator
Registrar ..... Dr. Vanessa Capps
Student Activities ..... Ruth Colnot, Coordinator
Student Services Advisor and Technology ..... Joel Ekstrom, Coordinator
Student Services ..... Cheryl Lawter, Specialist

ADVISING AND SUCCESS CENTER ..... Kimberly Snyder, Director

Advising ..... Jessie Fletcher, Coordinator
Disability and Career Services ..... Alfreda Lindsey, Counselor
Pre-Health Sciences Nursing ..... Tina Porter, Advisor
Success Coach ..... Lisa Courtney, Advisor
Testing ..... Paula Rogalski, Coordinator

WORKFORCE AND COMMUNITY EDUCATION

College and Career Readiness ..... Amy Galla, Director
College and Career Readiness Transition ..... Lauren Mooney, Coordinator
Continuing Education ..... Donna Hood, Dean
Customized Training ..... Mark Franklin, Director
Emergency Services and Lifelong Learning Coordinator ..... Jonathan Bland, Coordinator
Grants and College Development and Fundraising ..... Sarah Morse, Coordinator
Nursing Assistant and Allied Health ..... Betsy Cuthbertson, Coordinator
Performing Arts and Conference Center ..... Russell Wicker, Director
Polk Center ..... Kate Barkschat, Director
Small Business Center ..... Faye Bishop, Director

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Campus Enforcement ..... Officer Bob Davis and Officer Robert Owens
Campus Print Shop ..... Susan Straw, Manager
Human Resources ..... Amy Harper, Director
Information Technology ..... Robby Walters, Director
Library ..... Charles Wiggins, Director
Plant Operations and Maintenance ..... Bill Doll, Director
WNCW Director of Radio Operations ..... David Kester, Director

For complete college directory, visit www.isothermal.edu.

ACADEMIC CALENDAR 2017-2018

Fall Semester 2017

August 14	Monday	Convocation- All Faculty and Staff
August 15	Tuesday	Faculty and Staff Work Day
August 16	Wednesday	Final Registration – Fall Semester
August 17	Thursday	Final Registration/ Orientation
August 18	Friday	First Day of Classes, Schedule Adjustments
August 21	Monday	Schedule Adjustments
August 29	Tuesday	Last Day to Drop with 75% Refund (Full Term)
September 4	Monday	Labor Day Holiday (College Closed)
October 12	Thursday	Professional Development (No Classes)
October 13	Friday	Fall Break - Faculty, Students (No Classes)
October 17	Tuesday	Advising Day (No Classes)
October 25	Wednesday	Grub Day
October 30 - December 1	Monday-Friday	Spring Registration
November 17	Friday	Last day to Drop with "W"
November 22-24	Wednesday-Friday	Thanksgiving Break (College Closed)
December 15	Friday	Last Day of Classes
December 18	Monday	Faculty Checkout
December 21-Jan 1	Thursday-Monday	Winter Break (College Closed)

Spring Semester 2018

January 2	Tuesday	Faculty and Staff Work Day
January 3-4	Thursday	Final Registration – Spring Semester
January 5	Friday	First Day of Classes, Schedule Adjustments
January 8	Monday	Schedule Adjustments
January 15	Monday	Martin Luther King Holiday (College Closed)
January 17	Wednesday	Last Day to Drop with 75% refund (Full Term)
February 15	Thursday	Professional Development (College Closed)
March 13	Tuesday	Advising Day (No Classes)
March 19 - April 27	Monday-Friday	Summer/Fall Registration
March 30	Friday	Spring Holiday (College Closed)
April 2-6	Monday-Friday	Spring Break – Faculty, Students
April 12	Thursday	Last day to drop with "W" (Full Term)
April 18	Wednesday	Sports Day
May 9	Wednesday	Last Day of Classes
May 10	Thursday	Faculty Checkout
May 11-14	Friday and Monday	Student Break (No Classes)
May 11	Friday	REaCH Graduation
May 14	Monday	Graduation (Curriculum)
May 15	Tuesday	Graduation (Adult High School and GED)

Summer Semester 2018

May 15	Tuesday	Final Registration – Summer Semester
May 16	Wednesday	First Day of Classes, Schedule Adjustments
May 22	Tuesday	Last Day to Drop with 75% refund (Full Term)
May 28	Monday	Memorial Day Holiday (College Closed)
July 2-August 2	Monday-Friday	Fall Registration
July 4	Wednesday	Independence Day Holiday (College Closed)
July 11	Wednesday	Last day to drop with "W" (Full Term)
July 25	Wednesday	Last day of classes
July 26	Thursday	Faculty Checkout
July 27-August 10		Semester Break – Faculty/Students (No Classes)

INTRODUCTION
HISTORICAL SKETCH

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

The main campus is on 181 acres in Spindale. The Rutherford campus, perched on the shore of an 11-acre lake, is home to The Foundation Performing Arts and Conference Center, the area's premier venue for the arts and other special events. The college also owns and operates WNCW 88.7, an award-winning public radio station that can be heard in parts of five different states: North Carolina, South Carolina, Virginia, Tennessee and Georgia.

The Polk Center is in Columbus and opened in the fall of 1989. The Polk Center offers GED, massage therapy, equine studies, and driving safety classes on a regular basis as well as a variety of continuing education classes. In August 2013, Isothermal Community College opened the Rutherfordton Learning Center (RLC) to provide administrative and instructional spaces for the Associate Degree Nursing and Practical Nurse Education programs. Continuing Education programs, including Certified Nursing Assistant, were already operating at the RLC. It is located in downtown Rutherfordton, approximately four miles from the main campus and near the regional hospital. In May 2013, the Honorable Walter Dalton, former Lieutenant Governor of North Carolina, was appointed President by the college's Board of Trustees. The preceding president was Dr. Myra Johnson who served in that capacity for six years. Johnson, served a Isothermal for 23 years most recently as vice president of Academic and Student Affairs. She replaced Dr. Willard L. Lewis, III, who retired from the post in 2007 after 21 years at the college. During Johnson's presidency, the college acquired approximately 39 acres of property, contiguous to its existing borders. Most of this property was purchased by the Isothermal Community College Foundation and donated to the college, while one parcel was given to the college by the Rutherford County Board of Commissioners.

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

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

Until the new campus was ready, the vocational-technical, college transfer (begun in Sept. 1966) and adult education divisions were scattered in a number of temporary locations in Avondale, Spindale and Caroleen. College transfer and vocational-technical education each had about 100 students. The adult education program was 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 Rutherford campus (Administration, Library and Continuing Education) opened on April 8, 1968, and the College's first full-fledged graduation exercises were held on Aug. 30. The lake and initial landscaping of the campus were completed by April 27, 1969, when the College's charter was presented. By that time, 554 full-time students were enrolled. On Jan. 11, 1970, the College was accredited by the Southern Association of Colleges and Schools.

Expansion continued with the opening of a new Occupational Education Building in 1972. A satellite program for Polk County was approved in September 1974, and in November 1974 Rutherford County voters passed a $1.8 million bond issue for additional construction on the Rutherford 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 Rutherford campus included the completion of the High Tech Center (1988) which housed drafting, broadcasting, advertising/ graphic design and electronics engineering. A second major building program resulted in The Foundation Performing Arts and Conference Center. This 61,216 square-foot facility opened in November of 1999 with a performance by the North Carolina Symphony Orchestra.

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

COLLEGE MISSION, VALUES, AND VISION

OUR MISSION

As an integral community partner, Isothermal Community College exists to improve life through learning by providing innovative, affordable educational programs and offering opportunities for personal, professional, economic, and cultural development.

VIVID DESCRIPTION

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

VISION STATEMENT

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

VALUES

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

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

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, sex, socioeconomic status, ethnic origin, race, veteran status, religion, or disabilities. The essence of the College's efforts shall be to contribute, in cooperation with other local educational systems and institutions, to a higher quality of life in the community it serves.

ACCREDITATION

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

Inquiries relating to the accreditation status of the College may be made to the Southern Association of Colleges and Schools Commission on Colleges, 1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number 404-679-4500 at http://www.sacscoc.org. As a requirement for on-going accreditation, member colleges must go through an accreditation reaffirmation process every ten years. This means that college personnel review policies and practices of the College to assure that operations are in compliance with SACSCOC principles.

QUALITY ENHANCEMENT PLAN

A Quality Enhancement Plan (QEP) is a required part of our 2016 Reaffirmation with the Southeastern Association of Colleges and Schools Commission on Colleges (SACSCOC). At its core, a QEP is both a process and a report that identifies a key student learning need and demonstrates that the College can initiate, set, and assess significant goals through a process involving broad-based input.

The focus statement of our QEP is to empower first-time college students to overcome barriers to completion through orientation, ACA within the first two semesters, and dynamic advising. To support our QEP, we have developed an Orientation that prepares all new students for Isothermal's policies, procedures, and culture. It also introduces students to the technology they will be using throughout their experience at Isothermal. Sometime during the first two semesters, students will take one of our enhanced ACA course where they will clarify their educational goal and develop a semester-by-semester plan to achieve their goal. Recent research has shown that students who start their college experience with similar resources complete their goals more frequently and more quickly, hence our QEP's title "Start Strong. Finish Stronger." We will conduct our QEP from the Fall of 2016 to Spring 2020.

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, speaking, and through demonstration of information literacy*
- *Analyze problems and make valid conclusions*
- *Demonstrate quantitative skills*
- *Demonstrate basic technology skills*
- *Perform technical skills in their chosen occupations*

Achieving these competencies requires a commitment on the part of both Isothermal and its students to the satisfaction of certain goals and expectations.

We also value, promote, and emphasize the following soft skills:

- *Demonstrate positive interpersonal skills through cooperative learning and group interaction*
- *Use critical listening skills to understand, evaluate, and respond appropriately to verbal communication*
- *Develop and awareness of global issues and the interconnectedness and interdependence of persons, places, and events on earth from a current as well as historical perspective*

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.***

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM (NCCCS)
PERFORMANCE MEASURES FOR ISOTHERMAL COMMUNITY COLLEGE

The Performance Measures for Student Success Report is the North Carolina Community College System's major accountability document. This annual performance report is based on data compiled from the previous year and serves to inform colleges and the public on the performance of all North Carolina community colleges. Isothermal Community College is committed to using this system to continuously monitor, evaluate, and improve the quality of programs offered in Rutherford and Polk counties.

The 2016 Performance Measures for Student Success reports that the College was above the average college percentage in four of the seven performance measures as shown on the following chart.

Performance Measure	State Average	Isothermal
Basic Skills Student Progress	58.3%	43.2%
Developmental Student Success Rate in College-Level English Courses	52.0%	60.7%
Developmental Student Success Rate in College-Level Math Courses	29.8%	21.8%
First Year Progression	69.7%	74.5%
Curriculum Student Completion	44.0%	42.0%
Licensure and Certification Passing Rate	84.1%	71.6%
College Transfer Performance	82.8%	88.9%

GENERAL INFORMATION

ADMISSIONS AND REGISTRATION

For information regarding classes offered and registration at Isothermal Community College, please refer to www.isothermal.edu, call 828-395-4198, or email admissions@isothermal.edu.

Admissions Exception Policy

Isothermal Community College, in order to maintain a safe and orderly educational environment, reserves the right to refuse admission to any applicant if it is necessary to protect the safety of the applicant or other individuals. When making safety determination, the college may refuse admission to an applicant when there is an articulable, imminent, and significant threat to the applicant or other individuals. Isothermal Community College also reserves the right to refuse admission to any applicant during any period of time that the student is suspended or expelled for non-academic reasons from any other educational entity. Policy No: 601-02-09BP

CAMPUS SERVICES

Services and activities at Isothermal Community College support the learning college environment through the provision of programs and services that are timely, user-friendly, accessible, and designed to support student learning. These services recognize the significant diversity of the student body and seek to provide programs and services that support learning among all levels and types of students including (but not limited to) distance education, day and evening, minority, disabled, international, high school students, as well as displaced workers, single parents, students with financial need, etc.

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 are usually 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. Classes are also offered online.

CONDUCT

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

Students in certain programs may be expected to follow additional guidelines. Examples include (but are not limited to) Basic Law Enforcement Training Standards, guidelines associated with health sciences programs, and policies associated with Rutherford County Schools (e.g., REaCH) or Polk County Schools. The Students enrolled in adult basic education (ABE), adult high school (AHS), English as a second language (ESL), or (GED) preparation are also expected to follow both the *Basic Skills Code of Conduct* and the *Student Code of Conduct*.

It is the duty of the President to exercise full authority in the regulation of student services and discipline in the institution. Delegation of this authority is normally made to the Dean of Students. Nevertheless, it is the duty of the President to ensure to every student the right of due process.

CRIME AWARENESS AND CAMPUS SAFETY

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. Emergency procedures are also described in the Student Handbook.

DRUG AND ALCOHOL POLICY

Isothermal Community College campuses have been designated as “Drug Free” and only under approved circumstances is the consumption of alcohol permitted. The possession and/or use of any non-prescribed controlled substance, as defined in Chapter 90 of the General Statues of North Carolina and federal laws, is not permitted on the campuses of Isothermal Community College. The consumption of alcohol or the possession of an open container which contains alcoholic beverages is prohibited on the campuses of Isothermal Community College. A full description of the Drug and Alcohol Policy is available in the appendix of the Student Handbook. Isothermal Community College campuses have been designated as “Drug Free” and only under approved circumstances is the consumption of alcohol permitted.

FINANCIAL AID

For information about financial aid programs (including Institutional Scholarships, Powers, Veterans Affairs, and NC State Grants), please visit http://www.isothermal.edu/current-students/financial-aid/index.html. If you have questions, contact the Financial Aid office at (828) 395-4198 or by email at financialaid@isothermal.edu.

OFFICE HOURS

The administrative offices of the College are normally open Monday through Friday from 8:00 a.m. to 4:30 p.m. Hours may vary during breaks. Summer hours are Monday through Thursday 7:30 a.m. to 5:30 p.m.

POLICIES, PROCEDURES, AND PUBLICATIONS

In publishing Policies and Procedures, 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 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 certificates, diplomas, or degrees in the current academic year. Students enrolled prior to the fall of 1997 must confer with their advisors and the Registrar's Office in order to determine semester equivalents of quarter course credits.

Students in certain programs may be expected to follow additional guidelines. Examples include (but are not limited to) Basic Law Enforcement Training Standards, guidelines associated with health sciences programs, and policies associated with Rutherford County Schools (e.g., REaCH) or Polk County Schools. The students enrolled in adult basic education (ABE), adult high school (AHS), English as a second language (ESL), or (GED) preparation are also expected to follow both the *Basic Skills Code of Conduct* and the *Student Code of Conduct*.

The College publishes important information through a variety of sources including (but not limited to):

Notice of Availability of Institutional and Financial Aid Information

Isothermal Community College distributes consumer information to students through a variety of sources including the College Catalog and the Student Handbook. For the convenience of students, Isothermal has also created a web page to provide quick and easy access to institutional and financial aid information. This resource is available at www.isothermal.edu/current-students/comsumer-information/index.html. Printed paper copies are available upon request in Student Services.

College Catalog

The College Catalog is Isothermal's primary source of information regarding curriculum programs and course descriptions, other educational programs, administrator and faculty credentials, general educational competencies, and educational facilities.

Student Handbook

The Student Handbook for curriculum students provides information regarding what every student needs to know in order to successfully navigate the college experience at Isothermal.

Other Publications

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. Information, policies, and procedures may vary by program, e.g., Career and College Promise (CCP), health sciences programs, Cosmetology, and Basic Law Enforcement Training (BLET). Information regarding specific programs is available in departmental areas.

STUDENT PRIVACY

Isothermal Community College, in the execution of its responsibilities to students, must maintain accurate and confidential student records. The Student Services Records Office maintains these records in accordance with existing state laws, college policy and the Family Educational Rights and Privacy Act of 1974 as amended. See Appendix B: Student Records Policy in the Student Handbook.

TITLE IX

Title IX of the Education Amendments of 1972 protects people from discrimination based on sex in education programs and activities that receive federal financial assistance. The Title IX regulation describes the conduct that violates Title IX. Examples of the types of discrimination that are covered under Title IX include sexual harassment, sexual violence, and discrimination based on pregnancy. To enforce Title IX, the U.S. Department of Education maintains an Office for Civil Rights, with headquarters in Washington, DC and 12 offices across the United States. At Isothermal Community College, personnel have been designated as Title IX Coordinators. Any concerns or complaints regarding Title IX should be directed to one of the designated coordinators below.

Confidential reporting may be made to designated counselors in the Advising and Success Center located in the Student Center. Call (828) 395-1732 or 828-395-1660 to speak with a counselor.

Contact	Population Served	Contact Information
Amy Harper, Title IX Coordinator	Employees, Community Members, and Coordinates all Title IX Issues	828-395-1294 aharper@isothermal.edu
Sandra Lackner, Title IX Deputy Coordinator	Curriculum Students	828-395-1429 slackner@isothermal.edu
Donna Hood, Title IX Deputy Coordinator	Continuing Education Students	828-395-1404 dhood@isothermal.edu
Jeremiah McCluney, Title IX Deputy Coordinator	REaCH Students	828-395-4164 jsmcclun@rcsnc.org

ACADEMIC POLICIES AND PROCEDURES FOR CURRICULUM PROGRAMS

Isothermal Community College publishes academic policies and procedures that adhere to principles of good educational practice. These policies and procedures are disseminated to students, faculty, and other interested parties through the College website and publications that are available in both digital and print format including the College Catalog and Student Handbook.

ACA CLASSES AND ORIENTATION

Isothermal offers two student success courses, ACA 115 and ACA 122. These ACA courses provide an extensive orientation, not only to the College, but also to the first year college experience, with a focus on problem solving, goal-setting, educational planning, and career and college exploration. It is recommended that degree seeking students enroll in an ACA course within their first two semesters.

As part of our efforts to provide the best opportunity for our students to start strong, Isothermal requires students to participate in mandatory orientation. Students are encouraged to participate in a face-to-face orientation offered during fall and spring semesters. An online orientation is also available. Orientation familiarizes students with campus procedures and resources and offers information and assistance to help students succeed in college. A student may be exempt from orientation if the student is currently classified as a College and Career Promise (CCP), Early College, Occupational Education Associate (Lateral Entry), or Special Credit student. A student may also be exempt from participating in orientation if the student has graduated from an Isothermal program less than five years prior to enrolling in a new program. This exemption does not include CCP.

To help students become familiar with Isothermal's technical resources, information sessions about Moodle and Patriot Port are available at the beginning of each semester and available through the Student Bridge link on Moodle. Also, Successful Entry and Transition (SET) sessions are informational sessions offered at the high schools to help students transition to college and become familiar with campus resources.

ACADEMIC MISCONDUCT

All forms of academic misconduct may result in sanctions. For more information regarding academic misconduct, related sanctions, and disciplinary procedures, please refer to Appendix A.

ACADEMIC STANDING AND APPEALS

Rules and regulations regarding academic standing, suspension, and length of suspension are approved by the President (Board approved policy: Academic standing 401-02-00BP).

Academic Alert

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

In order to alert faculty and staff advisors that students are struggling academically, the Records Office will flag records in Colleague as notification when students GPAs fall below 2.0.

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 Students who will evaluate the progress of the student and may refer the student to the Committee on Admissions, Academic Continuation, and Records. This committee may (1) approve continued enrollment under specified circumstances or (2) suspend the enrollment of the student for a specified time frame. After observing the suspension period, the student must seek approval for readmission from the Dean of Students. The Dean of Students may refer the decision to the Committee on Admissions, Academic Continuation, and Records prior to re-entering.

Academic Standing

Guidelines may vary by program, e.g., Career and College Promise, Basic Law Enforcement Training (BLET), and health sciences. Information regarding academic standing guidelines by program is available in specific department areas.

Academic Standing Appeal

A student may appeal a decision on academic standing. An appeal should be submitted in writing to the Dean of Students. The Dean of Students may refer the appeal to the Committee on Admissions, Academic Continuation, and Records. The student may further appeal this decision to the Vice President of Academics and Student Services. The decision of the Vice President will be final.

ATTENDANCE

Regular class attendance is a student obligation and essential to receive maximum benefit from the educational experience. The student is expected to attend and be on time for all classes and lab, shop, and/or clinic sessions. The student is also responsible for all work, including tests and written assignments, and for all class meetings. Please refer to the Student Handbook for the Attendance Policy and Procedures.

School Absence for Religious Reasons

Isothermal Community College recognizes the right of students to be absent from class for religious reasons. Students may request a maximum of two excused class days per academic year for observations required by his/her faith. In accordance with this right, the President has established procedures for requesting, documenting and excusing religious absences.

AUDITING COURSES

If you wish to audit (take a class without credit), you must register through the regular procedure and must meet all course prerequistes and attendance requirements as other students. Audits will be charged the same fee as taking classes for credit. Notify your instructor when you begin the class. **AN AUDIT CANNOT BE CHANGED TO CREDIT OR CREDIT TO AUDIT.** Courses taken as an audit may be repeated for credit only. No curriculum course may be audited more than once.

AWARDING OF CREDIT

Transfer of credit for educational work taken at a regionally accredited institution may be accepted. Previous coursework 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 from previously enrolled institutions 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 five years may be subject to review by the Registrar's Office and appropriate faculty/dean. Courses under the five year limitation are determined and reviewed by academic 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. For students seeking transfer credit, college transcripts must be translated into English at the student's expense by an Isothermal Community College recognized independent credential education service.

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

Transfer students must earn at least 25% of the credits required for graduation in their particular program at Isothermal Community College (see Graduation Requirements). Any exceptions to this policy must be approved by the Committee on Admissions, Academic Continuation, and Records.

All transfer students will enter the College in good academic standing. Once enrolled, academic standing will be determined by grades on coursework completed 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 North Carolina Community College System approved college transfer 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 above referenced college transfer degree programs. 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. Time and program selection may be factors in determining credit.

Credit by Examination

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

Challenge Exam
A student may request permission through the appropriate academic 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 from the instructor.
2. If the exam is failed, the student must continue enrollment in the course.
3. A course may be challenged only once and must be done during the first week of class.
4. If the exam is passed, the student's grade must be submitted to the Student Records Office during the first two weeks of the semester. This grade will be recorded as a "CE". (Note: "CE" grades are not acceptable for the Comprehensive Articulation Agreement between the North Carolina Community College System and the UNC system.)

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

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

1. Grade of "B" or higher in the high school course.
2. A scaled score of 93 or higher on the standardized VoCATS post-assessment.
3. In order to receive articulated credit, students must enroll at Isothermal within two years of their high school graduation date.
4. Apply to Isothermal Community College in a related major.

CHANGE OF MAJOR

Program changes should be initiated by the student in consultation with Advising and Success Center, an academic advisor, and Financial Aid Counselor (when applicable). Program changes must be recorded in the Admissions Office. Changing a major will update the catalog of record to the current catalog year.

Students are responsible for monitoring progress in their program of study and ensuring that they are taking courses within their major for the correct catalog year. Financial aid amounts dispersed to students are subject to reduction for any courses not required for their major. Students are encouraged to seek assistance from college personnel and Program Evaluation resources on Patriot Port to clarify program requirements.

GRADING SYSTEM (Current)

Instructors are responsible for establishing their own grading policy in accordance with the college's letter grade system with qualitative descriptions.

Grade	Significance	Grade Value
A	Excellence	4.0
B	Above Average	3.0
C	Average	2.0
D	Below Average	1.0
F	Failed	0
W	Withdrawn	0
I	Incomplete	0
R*	Expected Progress DMA class	0
Y	No-credit-Audit	0
NS	No Show	
CE	Credit By Exam	
CR	Transfer Credit	
*	Developmental Credit	
%	Granted an Academic Fresh Start	
#	Administrative Withdrawal	

Academic Fresh Start
Any Isothermal Community College student who has experienced a lapse in enrollment at the college for a period of at least three consecutive academic years may petition in writing to have grades older than three years old with a final grade below "C" disregarded in calculating the GPA. Following re-enrollment, the student must complete at least twelve (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 two (2) academic semesters with at least twelve (12) semester hours and 2.0 GPA or better in the new major may petition for an academic fresh start even if there has not been a lapse in enrollment.

The student requesting a fresh start should complete an application for Academic Fresh Start that is available in the Student Services office. Students may be granted an academic fresh start only once. An academic review committee will consider the request and determine the student's eligibility for grade forgiveness. If the request is approved, the record of earlier course work will remain on the student's transcript; however, these 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.

Credit Hour Determination and Definition
Isothermal Community College makes determinations regarding credit hours and credit awarded consistent with the North Carolina State Board of Community Colleges policy 1G SBCCC 100.1. Course descriptions and credit hours, lab hours, clinical hours and contact hours are scheduled for course delivery consistent with the North Carolina Community College System Combined Course Library. Credit hours awarded for each class and hours required for program completion are described in the college catalog.

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

Grade Appeals
After conferring with the instructor concerned, a student may present a grade appeal in writing. Please refer to the Student Handbook for procedures to appeal grades.

Grade Changes
Instructors have total responsibility and authority for the assigning of grades. No other grade may be changed by an instructor once the grade has been given without the consent of the Vice President of Academics and Student Services.

Grade Point Average (GPA)
To compute a cumulative average, multiply credit hours by grade value to get total grade points for each course. Divide the total grade points for all courses by the total number of enrolled credit hours.

Grade Point Average Example:

Course	Credit hrs		Grade		Grade Points
English	3	x	C (2)	=	6
History	3	x	B (3)	=	9
Biology	4	x	A (4)	=	16
Math	5	x	D (1)	=	5
Spanish	3	x	F (0)	=	0
P.E.	2	x	A (4)	=	8
	20				44

Average for the semester 44 ÷ 20 = 2.20

Grade Reports
Final grade reports will be available online through Patriot Port at the completion of each semester.

Incomplete Policy
A grade of "I" is assigned when the coursework is incomplete. Unless the instructor has established an earlier time line for completion, this grade must be removed by completing the course before the end of the following semester or the grade automatically becomes an "F" on the permanent record. If a student is registered for a course that requires a pre-requisite with an assigned "I" incomplete grade, the student must complete the course by the census date of the current term. Otherwise, the student will be administratively dropped, resulting in a reduced enrollment status and ineligibility of a tuition refund. (Administrative approved policy: 401-02-03AP)

GRADUATION

Graduation exercises to award degrees, diplomas, and certificates to students in respective programs are held at the conclusion of spring semester. Students seeking to graduate **MUST** file a Graduation Application with the Records Office (Student Services). Students eligible to receive a degree, diploma, or certificate, are encouraged to participate in graduation exercises. See Academic Planner for deadlines.

Requirements

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

1) Complete all of the courses as outlined in the official Curriculum Standards,
2) Earn the minimum required total semester hours,
3) Maintain a grade point average of 2.0 or better in the program of study, some programs also require a grade of "C" or better on required courses, and
4) Submit an application for graduation.

A student may receive a certificate, diploma, or degree from Isothermal Community College in accordance with the requirements stated in the catalog in effect at the time he/she enrolls in the Isothermal program of study. Students who interrupt their enrollment at the college for three consecutive semesters must update their admissions file and meet graduation requirements of the catalog in effect when they return. Students who interrupt their enrollment in the college for five years must reapply to the college and meet graduation requirements of the catalog in effect when they return.

Students are responsible for monitoring progress in their program of study and ensuring that they are taking classes within their major for the correct catalog year. Financial aid amounts dispersed to students are subject to reduction for any classes not required for their major. Students are encouraged to seek assistance from college personnel and Program Evaluation resources on Patriot Port to clarify program requirements.

In the case of students transferring to Isothermal Community College, at least 25% of the credits required for graduation must be earned at Isothermal Community College. Any exception to this policy must be approved by the committee on Admissions, Academic Continuation, and Records.

Course Substitutions

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

Graduation Procedure

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

Graduation Orders

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

HONORS AND AWARDS

Honors and awards are recognized in the following ways:

Awards Day

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

Dean's List

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

Graduation Marshal

Two students will be selected to represent each academic division as graduation marshals. To be eligible for selection, student must be enrolled in a degree program, registered for six or more credits during the spring semester, have cumulative GPA of 3.75 or better, have completed 32 or more credits. Graduating students will not be considered, as they are encouraged to participate in the commencement ceremony. Academic deans will select graduation marshals from their division.

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

High Honors
Students will graduate with High Honors if they have completed a degree, diploma, or certificate program with a grade point average of 4.0 in their program of study.

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

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

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

RECORDS AND REGISTRATION

Drop/Withdrawal
All official withdrawals must:

1. Be made through the instructor in consultation with the student's academic advisor by the deadline published in the Academic Calendar. Courses that have non-standard beginning and ending dates may have different withdrawal deadlines. Students in these courses should consult their course syllabus or their instructor for deadline information.
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." Students whose cumulative absences exceed 20% of scheduled class hours for the semester may also be subject to administrative withdrawal. Students who are administratively withdrawn receive grades of W# in respective courses.

Instructors are required to keep attendance records throughout the semester. Last dates of attendance are required for grades of W (Withdrawn), W# (Administratively Withdrawn), and F (Failed) grades. The official withdrawal date will be the last date of attendance. Students are urged to consult with financial aid and veteran's affairs staff regarding the impact of class withdrawal and last date of attendance on financial aid and veterans benefits eligibility.

Withdrawals after the deadline published in the Academic Calendar must be approved by the Vice President of Academics and Student Services.

Mandatory Course Enrollment Activity and Census Rosters
Instructors must verify enrollment, attendance dates, beginning and ending dates, and hours and times the class meets. A student who has not attended or completed the mandatory course enrollment activity is listed as "No Show" and must be indicated as such on the roster. Audits and credit by exam grades are also included on these reports. Faculty teaching online, hybrid and web-assisted courses must submit the graded mandatory course enrollment activity results with the census roster. Completed reports are signed, dated, and submitted to the appropriate dean/director for review. The reports are then returned to the Records Office for processing.

The enrollment data from these reports are used to report student hours of membership (North Carolina Administrative Code 2D.0323) which are used to calculate FTE (full time equivalents) for the college and affects subsequent funding. Accuracy of information is critical. These reports are subject to audit.

Registration/Advising Forms

Refer to Appendixes G and H in the Student Handbook for samples
Appendix G - Registration/Advising Form Student Worksheet
Appendix H - Student Registration Schedule

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.

Student Classification

Freshmen have earned less than 30 credit hours.
Sophomores have earned 30 credit hours or more.
Full-Time students are enrolled for 12 or more credit hours.
Part-Time students are enrolled for less than 12 credit hours.

Student Privacy

Isothermal Community College, in the execution of its responsibilities to students, must maintain accurate and confidential student records. The Student Services Office 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. See Appendix B: Student Records Policy in the Student Handbook.

EDUCATIONAL PROGRAMS

CAREER AND COLLEGE PROMISE FOR HIGH SCHOOL STUDENTS

PURPOSE

The purpose of Career and College Promise (CCP) is to offer structured opportunities for qualified high school students to dually enroll in community college courses that provide pathways that lead to a certificate, diploma, or degree as well as provide entry-level job skills, tuition free.

DEFINITION

Career and College Promise occurs when qualified high school students are permitted to enroll in curriculum courses. Eligible students can enroll in CCP starting their freshmen year, if they meet admissions requirements for desired pathway, and have approval from their high school principal or designee before being enrolled in college classes.

CONTACT

For more information about the admissions process for Career and College Promise, please contact Admissions at 828-395-4193.

CONTINUING EDUCATION

www.isothermal.edu/academics/continuing-education/

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

ADMISSION AND REGISTRATION

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

REGISTRATION FEES

Student fees depend on the type of course. There are no registration fees for Adult Basic Education, HRD, and the High School Diploma programs. Law enforcement, fire, rescue, and EMT personnel pay no fees for their in-service training. Prisoners and mentally handicapped adults are fee exempt.

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 Center	Polk Center Director

CONTINUING EDUCATION REPETITION POLICY

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

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

CONTINUING EDUCATION UNITS

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

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

The CEU is used in three ways, as follows:

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

The Dean of Continuing Education and the Director of Polk Center 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.

CPR	HRD	Team Building	Emergency Medical Services
Law Enforcement	First Aid	Teacher Renewal Credit	Fire Fighting
Leadership Rutherford	Nursing Assistant	Truck Driver Training	Massage Therapy

SELF-ENRICHMENT

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

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

HRD PROGRAM

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

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

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

PROFESSIONAL TRUCK DRIVER TRAINING

www.isothermal.edu/academics/continuing-education/truck-driving/index.html

This 384 hour program is offered in daytime classes. Work with the truck in addition to classroom, will be scheduled at times from early morning to late evening, Monday-Friday.

PROGRAM FEATURES

One-on-one instruction behind the wheel
Satisfaction guarantee
CDL State testing conducted in-house
Job placement assistance available

ADMISSION REQUIREMENTS

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

ADULT BASIC EDUCATION

Adult Basic Education is designed for those who need basic reading, writing and math skills. The program offers instruction that will help adults become better consumers, employees and problem solvers. Classes provide group instruction, student driven individual study and technology to gain needed skills. All classes are free. To find the current schedule of class offerings, visit our website at www.isothermal.edu or contact the ABE Coordinator at 828-395-1489.

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. Any 18 year old or older may enroll in either program.

ADULT HIGH SCHOOL DIPLOMA REQUIREMENTS

1) Satisfactory completion of units in English, mathematics, social studies, sciences, and health.
2) Satisfactory completion of elective units.
3) A placement/progress score for reading and math are required.

ENGLISH AS A SECOND LANGUAGE - ESL

English as a Second Language (ESL) is a program of instruction designed to help adults who have limited English proficiency to achieve competence in the English language. Classes stress everyday life skills that enable the student to be a functioning member of society by learning English. Instruction is provided in the beginner, intermediate and advanced levels. Isothermal Community College partners with Polk County Schools, Polk County Schools Foundation, and Rutherford County Schools to offer this instruction. All classes are free. To find the current schedule of class offerings, visit our website at www.isothermal.edu or contact the ESL Coordinator at 828-395-1489.

NORTH CAROLINA'S HIGH SCHOOL EQUIVALENCY DIPLOMA

North Carolina's High School Equivalency (HSE) Diploma program offers instruction to assist learners in preparing to successfully pass a designated high school equivalency assessment. HSE Diplomas are awarded upon satisfactory completion of a series of tests in the areas of writing, reading, social studies, science, and mathematics. Spanish versions of the tests are also available. The three nationally-recognized assessments used to obtain a state-issued High School Equivalency credential in North Carolina are GED®, HiSET® and TASC. All three High School Equivalency assessments are recognized by the US Department of Education and cover the same content areas. Passing any one of the assessments will lead to the same High School Equivalency Diploma issued by the North Carolina State Board of Community Colleges. GED® and HiSET® testing is currently available at Isothermal Community College.

Testing accommodations may be available to examinees with documented disabilities. These accommodations are secured through official websites of the testing companies, but students may contact the Chief Examiner at 828-395-1660 for more information as well.

HSE practice tests and HSE study materials are available through College and Career Readiness classes. Free classes are offered in the communities throughout Rutherford and Polk Counties. Call 395-1489 or 395-1631 for more information.

CUSTOMIZED TRAINING AND DEVELOPMENT

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

CUSTOMIZED TRAINING PROGRAM

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

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

PURPOSE

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

ELIGIBILITY

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

SMALL BUSINESS CENTER

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

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

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

CAREER READINESS CERTIFICATION

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

POLK CENTER

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

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

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

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

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

POLK COUNTY EARLY COLLEGE (PCEC)

PCEC is a hybrid (traditional and online) innovative high school in partnership with Isothermal Community College serving students of Polk County. Students enroll at the beginning of their ninth grade year and take a combination of high school and college courses; at the end of up to five years, students may graduate high school with their associate's degree.

RUTHERFORD EARLY COLLEGE HIGH SCHOOL (REaCH)

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

THE FOUNDATION - A CENTER FOR LEARNING AND THE ARTS

The ground floor includes offices and classrooms for Basic Skills/Adult High School/GED; Customized Training & Development; Continuing Education; Defensive Driving, Truck Driving; Small Business Center; Visitor Information.

Located on the second and third floors of The Foundation Building, the Performing Arts and Conference Center plays host to an array of events, from concerts to wedding receptions. Cultural events include a variety of performance disciplines including dance, theatre, popular and classical music, family friendly variety shows, plays produced specifically for young audiences, as well as lectures and seminars. Programming is presented by the college and by community and regional based promoters. A listing of public events can be viewed on the facility web site www.FoundationShows.org Some special student ticket pricing is available for select events. 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, seminars, trade shows, and reunions, as well as smaller meetings and retreats.

CURRICULUM 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

Program	Code	Page #
ARTS AND SCIENCES		
Associate in Arts	A10100	29
Associate in Engineering	A10500	31
Associate in Fine Arts	A10700	32
Associate in Science	A10400	33
BUSINESS SCIENCES		
Accounting	A25100	44
Agribusiness Technology	A15100	49
Business Administration		
Banking and Finance	A25120B	59
Business Accounting	A25120A	60
Business Technology	A25120T	61
Entrepreneurial Innovations	A25120E	62
General Business	A25120G	63
Hospitality	A25120H	64
Marketing and Sales	A25120M	65
Entrepreneurship	A25490	89
Information Technology		
Computer Programming & Development	A25590C	92
IT Business Support	A25590I	94
Networking Management	A25590N	95
Web Administration and Design	A25590W	96
Medical Office Administration		
Healthcare Administration	A25310H	104
Medical Billing and Coding	A25310M	105
Patient Services Representative	A25310S	106
Office Administration		
Customer Service	A25370C	110
Legal Office	A25370L	111
Office Finance	A25370F	112
COMMERCIAL AND ARTISTIC PRODUCTION TECHNOLOGIES		
Advertising and Graphic Design	A30100	47
Broadcasting and Production Technology	A30120	52
CONSTRUCTION TECHNOLOGIES		
Building Construction Technology	A35140	55
Electrical Systems Technology	A35130	84
ENGINEERING TECHNOLOGIES		
Computer Engineering Technology	A40160	69
Electronics Engineering Technology	A40200	86
Mechanical Engineering Technology	A40320	102
HEALTH SCIENCES		
Associate Degree Nursing	A45110	35
Emergency Medical Science	A45340	36
General Occupational Technology	A55280	37

DEGREE PROGRAMS CONTINUED

Program	Code	Page #
INDUSTRIAL TECHNOLOGIES		
Industrial Systems Technology	A50240	90
Manufacturing Technology	A50320	97
Mechanical Drafting Technology	A50340	99
Welding Technology	A50420	114
PUBLIC SERVICE TECHNOLOGIES		
Cosmetology	A55140	74
Criminal Justice Technology	A55180	78
Early Childhood Education	A55220	80
Occupational Education Associate	A55320	108
School Age Education	A55440	83

DIPLOMA PROGRAMS

BUSINESS SCIENCES		
Accounting	D25100	45
Agribusiness Technology	D15100	50
Business Administration	D25120	66
Medical Office Administration	D25310	107
Office Administration	D25370	113
COMMERCIAL AND ARTISTIC PRODUCTION TECHNOLOGIES		
Broadcasting and Production Technology		
Audio Production	D3012001	54
Video Production	D3012002	54
CONSTRUCTION TECHNOLOGIES		
Building Construction Technology	D35140	57
Electrical Systems Technology	D35130	85
ENGINEERING TECHNOLOGIES		
Computer Engineering Technology	D40160	71
Electronics Engineering Technology	D40200	88
HEALTH SCIENCES		
General Occupational Technology	D55280	39
Practical Nursing	D45660	41
Surgical Technology	D45740	42
INDUSTRIAL TECHNOLOGIES		
Computer-Integrated Machining	D50210	72
Mechanical Drafting Technology	D50340	101
Welding Technology	D50420	115
PUBLIC SERVICE TECHNOLOGIES		
Cosmetology	D55140	75
Criminal Justice Technology	D55180	79
Early Childhood Education	D55220	81
General Occupational Technology	D55280	39
Occupational Education Associate	D55320	109
TRANSPORTATION SYSTEMS TECHNOLOGIES		
Collision Repair and Refinishing Technology	D60130	68

CERTIFICATE PROGRAMS

Program	Code	Page #
BUSINESS SCIENCES		
Accounting		
Computerized Accounting	C251002	46
General Accounting	C251001	46
Payroll Accounting, A/R, A/P Clerk	C251003	46
Agribusiness Technology		
Agriculture	C1510001	50
Equine Business Technology	C15100	50
Business Administration		
Banking and Finance	C2512007	67
Business Accounting	C2512001	67
Business Economics	C2512002	67
Business Technology	C2512004	67
Entrepreneurial Innovations	C2512005	67
General Business	C25120	67
Hospitality	C2512003	67
Marketing and Sales	C2512006	67
Entrepreneurship	C25490	77
Information Technology		
Computer Programming and Development	C25590C	93
Networking Technology	C25590N	95
Web Administration and Design	C25590W	96
Medical Office Administration		
General	C25310G	107
Healthcare Administration	C25310H	107
Medical Billing and Coding	C25310M	107
Patient Services Representative	C25310S	107
Office Administration		
Office Administration-Customer Service	C25370C	113
Office Administration-Office Finance	C25370F	113
Office Administration-Legal Office	C25370L	113
COMMERCIAL AND ARTISTIC PRODUCTION TECHNOLOGIES		
Advertising and Graphic Design	C30100	48
Photography	C3010001	48
Broadcasting and Production Technology		
Basic Audio Production	C3012001	54
Basic Video Production	C3012002	54
CONSTRUCTION TECHNOLOGIES		
Building Construction Technology		
Advanced Carpentry	C3514002	58
Basic Air Conditioning	C3514004	58
Basic Carpentry	C3514001	58
Basic Construction	C3514008	58
Basic Plumbing	C3514003	58
Construction Management	C3514011	58
Elementary Carpentry	C3514009	58
General Contractor Licensing Preparation	C3514005	58
Sustainable Building Design	C3514010	58
Electrical Systems Technology		
Electric Utility	C3513003	85
Electrical Wiring	C3513001	85
Industrial Controls	C3513002	85

ENGINEERING TECHNOLOGIES

Computer Engineering Technology	C40160	71
Electronics Engineering Technology	C40200	88
Mechanical Engineering Technology	C40320	103
Mechanical Engineering Technology Transition	C4032002	103

CERTIFICATE PROGRAMS CONTINUED

Program	Code	Page #
HEALTH SCIENCES		
General Occupational Technology	C55280	40
Licensed Practical Nurse Refresher	C45390	40
INDUSTRIAL TECHNOLOGIES		
Computer Integrated Machining		
Advanced Motorsports Machining	C5021004	73
CNC	C5021002	73
Machining	C5021001	73
Motorsports Machining	C5021003	73
Industrial Systems Technology	C5024001	91
Pipefitting Technology	C5024002	91
Manufacturing Technology		
CNC Programming	C5032001	98
Manufacturing	C5032002	98
Mechanical Drafting Technology	C50340	101
Welding Technology		
Advanced Welding	C5042002	116
Advanced Welding and Inspection Processes	C5042003	116
Basic Welding	C5042001	116
Welding	C5042000	116
PUBLIC SERVICE TECHNOLOGIES		
Basic Law Enforcement Training	C55120	51
Cosmetology	C55140	75
Cosmetology Instructor	C55160	76
Criminal Justice Technology	C55180	79
Early Childhood Education	C55220	82
Esthetics Instructor	C55270	77
Esthetics Technology	C55230	76
Infant/Toddler Care	C55290	82
Manicuring Instructor	C55380	77
Manicuring/Nail Technology	C55400	75
Occupational Education Associate	C55320	109
TRANSPORTATION SYSTEMS TECHNOLOGIES		
Collision Repair and Refinishing Technology		
Basic Collision Repair and Refinishing	C6013001	68
Advanced Collision Repair and Refinishing	C6013002	68

ONE PLUS ONE PROGRAMS

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

COOPERATIVE EDUCATION PROGRAM

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

A student may participate in the Co-op Program and earn credit toward degree requirements depending on his/her major.
In order to be eligible for the Co-op Program, the student must:

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

ACADEMIC DEVELOPMENT

This college level educational support program is designed to provide access to success for Isothermal Community College students. Support is provided in the form of developmental English and math courses, a Writing Center, math tutoring, and Supplemental Instruction.

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

Courses are offered in various levels of English and mathematics. Class formats include self-paced, lecture, web-assisted, and online instruction. In every case, instructors work with students to provide them with a foundation for confident, life-long learning. Each DRE course is taught in an 8-week format, MAT 050 is taught in an 8-week format, and each DMA course is taught in a 4-week format. Classes are available in the following Academic Development Courses:

Developmental English

DRE 096	Integrated Reading and Writing
DRE 097	Integrated Reading and Writing II
DRE 098	Integrated Reading and Writing III

Developmental Math

MAT 050	Basic Math Skills
DMA 010	Operations with Integers
DMA 020	Fractions and Decimals
DMA 030	Proportion/Ratio/Rate/Percent
DMA 040	Expressions/Linear Equations/Inequalities
DMA 050	Graphs/Equations of Lines
DMA 060	Polynomial/Quadratic Applications
DMA 070	Rational Expressions/Equations
DMA 080	Radical Expressions/Equations

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 60-61 semester hours in designated disciplines with an overall grade point average of 2.0 to graduate. 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.

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

1. Students who complete the A.A. or A.S. degree at a college within North Carolina Community College System are assured admission to one of the 16 universities within the UNC system and will transfer as juniors. They will still be responsible for any institutional requirements at the transfer university, such as foreign language. If these requirements have not been met at the community college, they will have to be completed at the transfer university. (Note: This agreement does not guarantee acceptance at the student's first choice institution.)
2. Students who complete the A.A. or A.S. degree, with grades of C or higher in all courses and an overall GPA of at least 2.0, prior to transfer to a UNC institution, will have satisfied the UNC institution's lower-division requirements in general education.
3. The A.A. and A.S. degree programs are comprised of two components: 1) the Universal General Education Transfer Component (UGETC) of 30 semester hours and, 2) additional general education, pre-major, and elective courses that are selected by students according to the requirements of their intended major at the transfer institution.
4. Students who complete all courses in the UGETC with a grade of C or higher and an overall GPA of 2.0 or higher will be granted credit toward the university's lower-division general education requirements.
5. Students who satisfactorily complete transfer-level courses that are not within the UGET will receive transfer credit for the courses, but the university will determine whether to award the credits as general education, pre-major, or elective.
6. Each UNC university is required to publish and maintain its degree plans so that community college students can select clear pathways toward completion of baccalaureate degrees.

*An Independent Comprehensive Articulation Agreement (I.C.A.A.) allows for transfer to a limited group of private colleges.

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

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

Associate in Arts (A.A.) Degree (A10100)

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.

Program Student Learning Outcomes
Graduates will be able to:

1. Communicate effectively through writing, reading, speaking, and listening through the demonstration of information literacy
2. Analyze problems and make logical conclusions.
3. Demonstrate positive interpersonal skills through cooperative learning and group interaction
4. Demonstrate quantitative competencies
5. Demonstrate technology skills
6. Demonstrate an awareness and an understanding of diverse culture and historical perspective
7. Transfer successfully the entire core into a Bachelor's Degree program at any state university in North Carolina to which they are accepted, as well as most other universities and colleges in the United States. Further, students that go beyond the transfer general education component and complete an AA degree or AS degree should be able to transfer as a junior (3rd year) level student.

NOTE: Courses used to satisfy one group cannot be used in another group.

I. Required Courses Local/State Requirement: (4 hours) ACA 122 CIS 110

II: Universal General Education Transfer Component (31–32 hours)

English Composition – 6 hrs (select both courses): ENG 111 ENG 112

Humanities/Fine Arts – 9 hrs (select 3 courses from at least 2 different disciplines):

ART 111	ART 114	ART 115	COM 231	ENG 231
ENG 232	ENG 241	ENG 242	MUS 110	MUS 112
PHI 215	PHI 240			

Social/Behavioral Sciences – 9 hrs (select 3 courses from at least 2 different disciplines):

ECO 251	ECO 252	HIS 111	HIS 112	HIS 131
HIS 132	POL 120	PSY 150	SOC 210	

Mathematics – 3-4 hrs (select one course from the following):

MAT 143	MAT 152	MAT 171

Natural Sciences – 4 hrs (select one course from the following):

AST 111/111A	AST 151/151A	BIO 111	CHM 151	PHY 110/110A

Total: 35–36 hours

III: Additional General Education Electives (14 hours)
NOTE: For group 3 and group 4, students should select these courses based on their intended major and transfer university. Courses listed in Group 2 may be used to satisfy this group if they are not used to satisfy another group.

Humanities/Fine Arts – 3 hours – select from the following: (recommended: 3rd prefix different from above)

ART 111	ART 114	ART 115	COM 231	ENG 231
ENG 232	ENG 241	ENG 242	ENG 262	HUM 110
HUM 115	HUM 120	HUM 122	HUM 130	HUM 211
HUM 212	MUS 110	MUS 112	MUS 113	MUS 114
PHI 215	PHI 240	REL 110	REL 111	REL 211
REL 212	SPA 111	SPA 112	SPA 211	SPA 212

Social/Behavioral Sciences – 3 hours – select from the following (recommended: 3rd prefix different from above):

ANT 210	ANT 220	ECO 251	ECO 252	GEO 111
HIS 111	HIS 112	HIS 131	HIS 132	POL 120
POL 220	PSY 150	PSY 237	PSY 241	PSY 281
SOC 210	SOC 213	SOC 220		

Mathematics – 4 hours – select from the following (different from above):

MAT 143	MAT 152	MAT 171	MAT 172	MAT 263
MAT 271	MAT 272	MAT 273		

Natural Sciences – 4 hours – select from the following (different from above):

AST 111/111A	AST 151/151A	AST 152/152A	BIO 111	BIO 112
BIO 140/140A	CHM 131/131A	CHM 132	CHM 151	CHM 152
PHY 110/110A	PHY 151	PHY 251	PHY 252	PHY 152

Total: 49-50 hours

IV: Additional hours and courses for degree/Pre-Major Electives (11–12 hours)

NOTE: For group 3 and group 4, students should select these courses based on their intended major and transfer university. Courses listed in Group 2 may be used to satisfy this group if they are not used to satisfy another group.

Health/Wellness – minimum of 2 hours – select from the following

BIO 155	HEA 110	HEA 120	PED 110	PED 113
PED 117	PED 120	PED 130	PED 137	PED 152
PED 153	PED 155	PED 219		

Pre-Major Electives – minimum of 9 hours – select from the following:

ACC 120	ACC 121	ANT 210	ANT 220	ART 111
ART 114	ART 115	ART 118	ART 121	ART 131
ART 132	ART 140	ART 240	ART 241	AST 111/111A
AST 151/151A	AST 152/152A	BIO 111	BIO 112	BIO 140/140A
BIO 155	BIO 163	BIO 168	BIO 169	BIO 175
BIO 275	BUS 110	BUS 115	BUS 137	CHM 131/131A
CHM 132	CHM 151	CHM 152	CHM 251	CHM 252
CIS 115	CJC 111	CJC 121	CJC 141	COM 231
COM 251	CSC 134	CSC 139	CTS 115	ECO 251
ECO 252	ENG 231	ENG 232	ENG 241	ENG 242
ENG 262	GEO 111	HEA 110	HEA 112	HEA 120
HIS 111	HIS 112	HIS 131	HIS 132	HIS 226
HUM 110	HUM 115	HUM 120	HUM 122	HUM 130
HUM 170	HUM 211	HUM 212	HUM 230	MAT 143
MAT 152	MAT 171	MAT 172	MAT 263	MAT 271
MAT 272	MAT 273	MAT 280	MAT 285	MUS 110
MUS 112	MUS 113	MUS 114	MUS 121	MUS 122
MUS 151	MUS 152	MUS 221	MUS 222	PED 110
PED 113	PED 117	PED 120	PED 130	PED 137
PED 152	PED 153	PED 155	PHI 215	PHI 240
PHY 110/110A	PHY 151	PHY 152	PHY 251	PHY 252
POL 120	POL 220	PSY 150	PSY 237	PSY 241
PSY 281	REL 110	REL 111	REL 211	REL 212
SOC 210	SOC 213	SOC 220	SPA 111	SPA 112
SPA 181	SPA 182	SPA 211	SPA 212	SPA 281
SPA 282				

Total: 60–61 hours

NOTE: One semester hour of credit may be included in a 61 SHC associate in arts program of study. The transfer of this hour is not guaranteed.

Associate in Engineering (A.E.) Degree (A10500)

The Associate in Engineering (AE) degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of courses. Within the degree, the institution shall include opportunities for the achievement of competence in reading, writing, oral communications, fundamental mathematical skills, and basic computer use.

The degree plan includes required general education and prerequisite courses that are acceptable to all state funded Bachelor of Engineering programs. Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses. Admission to Engineering programs is highly competitive and admission is not guaranteed.

To be eligible for transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.5 on a 4.0 scale.

Program Student Learning Outcomes
Upon completion of a degree, a diploma, or the transfer general education core from Isothermal Community College, students should be able to:

1. Demonstrate awareness and understanding of the Engineering field and potential careers.
2. Demonstrate logic, quantitative and technology skills in the analysis of problems and generation of potential solutions.
3. Communicate effectively through writing, reading, speaking, listening through the demonstration of information literacy.
4. Demonstrate positive interpersonal skills through cooperative learning and group interaction.
5. Demonstrate an awareness of and understanding of diverse culture and historical perspective.
6. Transfer successfully the core into a Bachelor's Degree program at any state university in North Carolina to which they are accepted, as well as most other universities and colleges in the United States. Further, students that go beyond the transfer general education component and complete the AE degree should be able to transfer as a junior (3rd year) level student.

Note: Courses used to satisfy one group cannot be used in another group.

I. Local Requirement: (1 hours) ACA 122

II. Universal General Education Transfer Component (42 hours)

English Composition – 6 hours (select both courses) ENG 111 ENG 112

Humanities/Fine Arts – 6 hours

Select 1 course from:	ENG 231	ENG 232	ENG 241	ENG 242
	PHI 215	PHI 240	REL 110	
Select 1 course from:	ART 111	ART 114	ART 115	COM 231
	MUS 110	MUS 112		

Social/Behavioral Sciences – 6 hours

Required:	ECO 251			
Select 1 course from:	HIS 111	HIS 112	HIS 131	HIS 132
	POL 120	PSY 150	SOC 210	

Mathematics – 12 hours	MAT 271	MAT 272	MAT 273	
Natural Sciences – 12 hours	CHM 151	PHY 251	PHY 252	

Total: 43 hours

III. Additional Hours Required for Degree (17 hours)

Required:	EGR 150			
Select 15 hours from:	BIO 111	CHM 152	CSC 134	DFT 170
	ECO 252	MAT 280	MAT 285	PED 110

Total: 60 hours

Associate in Fine Arts in Music (A.F.A) Degree (A10700)

The Associate of Fine Arts 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.

Program Student Learning Outcomes
Upon completion of a degree, a diploma, or the transfer general education core from Isothermal Community College, students should be able to:

1. Demonstrate and apply essential skills of musical performance
2. Demonstrate understanding of music theory
3. Demonstrate essential aural skills
4. Communicate effectively through writing, speaking, and listening and through the demonstration of information literacy
5. Demonstrate positive interpersonal skills through cooperative learning and group interaction
6. Think critically and make logical conclusions
7. Demonstrate technology skills
8. Demonstrate global awareness and appreciation

Note: Courses used to satisfy one group cannot be used in another group.

I. Required Courses Local/State Requirement: (4 hours) ACA 122 CIS 110

II. Universal General Education Transfer Component (25-27 hours)

English Composition – 6 hours (select both courses) ENG 111 ENG 112

Communications/Humanities/Fine Arts – 3 hours

ART 111	COM 231	ENG 231	ENG 232	ENG 241
ENG 242	MUS 110	MUS 112	PHI 215	PHI 240

Social/Behavioral Sciences – 6 hours (select 2 courses from 2 different disciplines):

ECO 252	HIS 111	HIS 112

Mathematics – 3-4 hours (select one course from the following):

MAT 143	MAT 171

Natural Sciences – 4 hours (select one course from the following):

AST 111/111A	AST 151/151A	BIO 111	CHM 151	PHY 110/110A

Total: 25-29 hours

III. Additional General Education Electives (3-4 hours)

MUS 110	MUS 112	SPA111/181

IV. Additional hours and courses for degree/Pre-Major Electives (32 hours)

Music Theory – 16 hours

MUS 121	MUS 122	MUS 221	MUS 222

Applied Music – 8 hours

MUS 161	MUS 162	MUS 261	MUS 262

Class Music – 2 hours

MUS 151	MUS 152

Ensemble – 6 hours

MUS 131	MUS 132	MUS 141	MUS 142	MUS 151V	MUS 152V

Total: 61 hours

Associate in Science (A.S.) Degree (A10400)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Communicate effectively through writing, reading, speaking, and listening through the demonstration of information literacy
2. Analyze problems and make logical conclusions
3. Demonstrate positive interpersonal skills through cooperative learning and group interaction
4. Demonstrate quantitative competencies
5. Demonstrate technology skills
6. Demonstrate an awareness and an understanding of diverse culture and historical perspective
7. Transfer successfully the entire core into a Bachelor's Degree program at any state university in North Carolina to which they are accepted, as well as most other universities and colleges in the United States. Further, students that go beyond the transfer general education component and complete an AA degree or AS degree should be able to transfer as a junior (3rd year) level student.

NOTE: Courses used to satisfy one group cannot be used in another group.

I: Required Courses Local/State Requirement: (4 hours) ACA 122 CIS 110

II: Universal General Education Transfer Component (34 hours)

English Composition – 6 hrs (select both courses): ENG 111 ENG 112

Humanities/Fine Arts – 6 hrs (select 2 courses from 2 different disciplines):

ART 111	ART 114	ART 115	COM 231	ENG 231
ENG 232	ENG 241	ENG 242	MUS 110	MUS 112
PHI 215	PHI 240			

Social/Behavioral Sciences – 6 hrs (select 2 courses from 2 different disciplines):

ECO 251	ECO 252	HIS 111	HIS 112	HIS 131
HIS 132	POL 120	PSY 150	SOC 210	

Mathematics – 8 hrs (select 2 courses from the following):

MAT 171	MAT 172	MAT 263	MAT 271	MAT 272

Natural Sciences – 8 hrs (SELECT ONE OPTION):
(select 2 courses from the following):

Option 1:	AST 151/151A and PHY 110/110A
Option 2:	BIO 111 and BIO 112
Option 3:	CHM 151 and CHM 152
Option 4:	PHY 151 and PHY 152
Option 5:	PHY 251 and PHY 252

Total: 38 hours

III: Additional General Education Electives (11 hours)
NOTE: For group 3 and group 4, students should select these courses based on their intended major and transfer university. Courses listed in Group 2 may be used to satisfy this group if they are not used to satisfy another group.

Humanities/Fine Arts/Social/Behavioral Sciences – 3 hours – select 1 course from the following (recommended: 3rd prefix different from above):

ANT 210	ANT 220	ART 111	ART 114	ART 115
COM 231	ECO 251	ECO 252	ENG 231	ENG 232
ENG 241	ENG 242	ENG 262	GEO 111	HIS 111
HIS 112	HIS 131	HIS 132	HUM 115	HUM 120
HUM 122	HUM 130	HUM 211	HUM 212	MUS 110
MUS 112	MUS 113	PHI 215	PHI 240	POL 120
POL 220	PSY 150	PSY 237	PSY 241	PSY 281
REL 110	REL 111	REL 211	REL 212	SOC 210
SOC 213	SOC 220	SPA 111	SPA 112	SPA 211
SPA 212				

Mathematics – 4 hrs – select 1 course from the following:

MAT 171	MAT 172	MAT 263
MAT 273	MAT 271	MAT 272

Natural Sciences – 4 hrs – select 1 course from the following:

AST 151/151A	AST 152/152A	BIO 111	BIO 112	BIO 140/140A
CHM 131/131A	CHM 132	CHM 151	CHM 152	PHY 110/110A
PHY 151	PHY 252	PHY 152	PHY 251	

Total: 49 hours

IV: Additional hours and courses for degree/Pre-Major Electives (11–12 hours)

NOTE: For group 3 and group 4, students should select these courses based on their intended major and transfer university. Courses listed in Group 2 may be used to satisfy this group if they are not used to satisfy another group.

Pre-Major Electives – select from the following:

AST 151/151A	AST 152/152A	BIO 111	BIO 112	BIO 140/140A
BIO 155	BIO 163	BIO 168	BIO 169	BIO 175
BIO 275	CHM 131/131A	CHM 132	CHM 151	CHM 152
CHM 251	CHM 252	CIS 115	CSC 134	CSC 139
CTS 115	MAT 171	MAT 172	MAT 263	MAT 271
MAT 272	MAT 273	MAT 280	MAT 285	PHY 110/110A
PHY 151	PHY 152	PHY 251	PHY 252	SPA 181
SPA 182	SPA 211	SPA 212	SPA 281	SPA 282

Total: 60–61 hours

NOTE: One semester hour of credit may be included in a 61 SHC associate in arts program of study. The transfer of this hour is not guaranteed.

HEALTH SCIENCES
Associate Degree Nursing Degree (A45110)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:

1. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings
2. Make judgments in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context
3. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context
4. Examine the evidence that underlines clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities

			Class Hours	Lab Hours	Clin. Hours	Credit Hours
I.	**General Education Requirements - 26 Credit Hours**					
	BIO 168	Anatomy & Physiology I	3	3	0	4
	BIO 169	Anatomy & Physiology II	3	3	0	4
	BIO 175	General Microbiology	2	2	0	3
	ENG 111	Writing and Inquiry	3	0	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	0	3
		Humanities Elective	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
	PSY 241	Developmental Psychology	3	0	0	3
II.	**Required Core Courses - 43 Credit Hours**					
	NUR 111	Intro to Health Concepts	4	6	6	8
	NUR 112	Health Illness Concepts	3	0	6	5
	NUR 113	Family Health Concepts	3	0	6	5
	NUR 114	Holistic Health Concepts	3	0	6	5
	NUR 211	Health Care Concepts	3	0	6	5
	NUR 212	Health System Concepts	3	0	6	5
	NUR 213	Complex Health Concepts	4	3	15	10
III.	**Other Major Required Courses - 4 Credit Hours***					
	NUR 214	Nursing Transition Concepts	3	0	3	4
IV.	**Other Required Hours - Select 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 122	College Transfer Success	0	2	0	1
Total Required Hours						**69**

Note: The Associate Degree A 45 11 0 is offered for students entering the program in fall 2009. Students admitted to the program before fall 2009 are in the Associate Degree Nursing Non-Inegrated-Degree A 45 12 0 program. If a student's progress in the program is interrupted after the new curriculum A 45 11 0 begins, that student must re-apply to the A 45 11 0 curriculum.
**For students accepted as advanced placement, pending approval by NCCCS.*

Emergency Medical Science Degree (A45340)

Program Student Learning Outcomes

The Emergency Medical Science graduates are prepared to meet the requirements to enter the workforce as paramedics and can obtain an Associate Degree.

			Class Hours	Lab Hours	Clin. Hours	Credit Hours
I.	**General Education Requirements – 15 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	MAT 143	Quantitative Literacy	3	2	0	3
		Humanities Elective	3	0	0	3
	ENG 112	Writing/Research in the Disc	3	0	0	3
		OR				
	ENG 114	Prof Research & Reporting				
	PSY 150	General Psychology	3	0	0	3
		OR				
	SOC 210	Introduction to Sociology				
II.	**Required Core Courses – 52 Credit Hours**					
	EMS 110	EMT	6	6	0	8
	BIO 169	Anatomy and Physiology II	3	3	0	4
	MED 121	Medical Terminology I	3	0	0	3
	MED 122	Medical Terminology II	3	0	0	3
	EMS 122	EMS Clinical Practicum I	0	0	3	1
	EMS 130	Pharmacology	3	3	0	4
	EMS 131	Advanced Airway Management	1	2	0	2
	EMS 160	Cardiology I	1	3	0	2
	EMS 220	Cardiology II	2	3	0	3
	EMS 221	EMS Clinical Practicum II	0	0	6	2
	EMS 231	EMS Clinical Pract III	0	0	9	3
	EMS 240	Patients W/ Special Challenges	1	2	0	2
	EMS 241	EMS Clinical Practicum IV	0	0	12	4
	EMS 250	Medical Emergencies	3	3	0	4
	EMS 260	Trauma Emergencies	1	3	0	2
	EMS 270	Life Span Emergencies	2	3	0	3
	EMS 285	EMS Capstone	1	3	0	2
III.	**Other Major Required Courses – 8 Credit Hours**					
	EMS 140	Rescue Scene Management	1	3	0	2
	EMS 235	EMS Management	2	0	0	2
	BIO 168	Anatomy and Physiology I	3	3	0	4
IV.	**Other Major Hours – 1 Credit Hour**					
	ACA 115	Success and Study Skills	0	2	0	1
Total Required Hours						**76**

EMS-280, EMS BRIDGING COURSE, WILL BE OFFERED IN THE EMERGENCY MEDICAL SCIENCE PROGRAM

General Occupational Technology Degree (A55280)

Curriculum Description
The General Occupational Technology curriculum provides individuals with an opportunity to upgrade their skills and to earn an associate degree by taking courses suited for their occupational interests and/or needs. The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree-level courses offered by the College. Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

Program Student Learning Outcomes
Graduates will be able to:

1. Communicate effectively through writing, reading, speaking, and listening through the demonstration of information literacy
2. Analyze problems and make logical conclusions
3. Demonstrate positive interpersonal skills through cooperative learning and group interaction
4. Demonstrate quantitative competencies
5. Meet requirements of their chosen tracks within the program of study, such as in order to transfer or be job-ready in health sciences.

				Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**					
	ENG 111	Writing and Inquiry		3	0	3
	MAT 143	Quantitative Literacy		2	2	3
	PSY 150	General Psychology		3	0	3
	Humanities – **Select 3 Credit Hours**					3
		ART 111	Art Appreciation			
		ART 114	Art History Survey I			
		ART 115	Art History Survey II			
		ENG 231	American Literature I			
		ENG 232	American Literature II			
		ENG 241	British Literature I			
		ENG 242	British Literature II			
		ENG 261	World Literature I			
		ENG 262	World Literature II			
		HUM 115	Critical Thinking			
		HUM 120	Cultural Studies			
		HUM 122	Southern Culture			
		HUM 130	Myth in Human Culture			
		HUM 170	The Holocaust			
		HUM 211	Humanities I			
		HUM 212	Humanities II			
		MUS 110	Music Appreciation			
		MUS 112	Introduction to Jazz			
		MUS 113	American Music			
		MUS 114	Non-Western Music			
		PHI 215	Philosophical Issues			
		PHI 240	Introduction to Ethics			
		REL 110	World Religions			
		REL 111	Eastern Religions			
		REL 211	Intro to Old Testament			
		REL 212	Intro to New Testament			
	Communication Option – **Select 3 Credit Hours**					
		ENG 112	Writing/Research in the Disciplines	3	0	3
		COM 231	Public Speaking	3	0	3
II.	**Required Core Courses - 29-31 Credit Hours**					
	BIO 168	Anatomy and Physiology I		3	3	4
	BIO 169	Anatomy and Physiology II		3	3	4
	CIS 110	Introduction to Computers		2	2	3
	MED 121	Medical Terminology I		3	0	3
	MED 122	Medical Terminology II		3	0	3
	PSY 241	Developmental Psych		3	0	3

			Class Hours	Lab Hours	Credit Hours
	Other Major Required Courses - (Take 1 Group)				
	Registered Nurse				
	BIO 111	General Biology I	3	3	4
	BIO 175	General Microbiology	3	3	4
	BIO 155	Nutrition	3	0	3
	Licensed Practical Nurse				
	BIO 175	General Microbiology	3	3	4
	BIO 155	Nutrition	3	0	3
	ISC 121	Environmental Health and Safety	3	0	3
	Surgical Technology				
	BIO 155	Nutrition	3	0	3
	BIO 175	General Microbiology	3	3	4
	ISC 121	Environmental Health and Safety	3	0	3
	Transfer				
	BIO 111	General Biology I	3	3	4
	MAT 152	Statistical Methods I	3	3	4
	SOC 210	Introduction to Sociology	3	0	3
III.	**Other Required Courses - Select 21 Credit Hours**				
	BIO 111	General Biology I	3	3	4
	BIO 155	Nutrition	3	0	3
	BIO 163	Basic Anatomy and Physiology	4	2	5
	BIO 175	General Microbiology	2	2	3
	BIO 275	Microbiology	3	3	4
	CHM 131	Introduction to Chemistry	3	0	3
	CHM 131A	Introduction to Chemistry Lab	0	3	1
	CHM 132	Organic and Biochemistry	3	3	4
	CHM 151	General Chemistry	3	3	4
	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
	ISC 110	Workplace Safety	1	0	1
	ISC 121	Environmental Health & Safety	3	0	3
	MAT 152	Statistical Methods I	3	3	4
	OST 136	Word Processing	2	2	3
	OST 148	Med Coding Billing & Insu	3	0	3
	OST 149	Medical Legal Issues	3	0	3
	PSY 281	Abnormal Psychology	3	0	3
	SOC 210	Introduction to Sociology	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 1	0	2	1
	WEB 110	Internet/Web Fundamentals	2	2	3
IV.	**Other Major Hours - Select 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66-68**

General Occupational Technology Diploma (D55280)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	PSY 150	General Psychology	3	0	3
II.	**Required Core Courses - 14 Credit Hours**				
	BIO 168	Anatomy and Physiology I	3	3	4
	BIO 169	Anatomy and Physiology II	3	3	4
	CIS 110	Introduction to Computers	2	2	3
	PSY 241	Developmental Psych	3	0	3
III.	**Other Major Required Courses - Select 18 Credit Hours**				
	BIO 111	General Biology I	3	3	4
	BIO 155	Nutrition	3	0	3
	BIO 163	Basic Anatomy and Physiology	4	2	5
	BIO 175	General Microbiology	2	2	3
	BIO 275	Microbiology	3	3	4
	CHM 131	Introduction to Chemistry	3	0	3
	CHM 131A	Introduction to Chemistry Lab	0	3	1
	CHM 132	Organic and Biochemistry	3	3	4
	CHM 151	General Chemistry	3	3	4
	COM 231	Public Speaking	3	0	3
	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
	ISC 110	Workplace Safety	1	0	1
	ISC 121	Environmental Health & Safety	3	0	3
	MAT 143	Quantitative Literacy	2	2	3
	MAT 152	Statistical Methods I	3	2	4
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	OST 136	Word Processing	2	2	3
	OST 148	Med Coding Billing & Insu	3	0	3
	OST 149	Medical Legal Issues	3	0	3
	PSY 281	Abnormal Psychology	3	0	3
	SOC 210	Introduction to Sociology	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 120	Spanish for the Workplace	3	0	3
	SPA 181	Spanish Lab 1	0	2	1
	WEB 110	Internet/Web Fundamentals	2	2	3
III.	**Other Major Hours - Select 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**39**

General Occupational Technology Certificate (C55280)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	PSY 150	General Psychology	3	0	3
II.	**Other Major Required Courses - 11 Credit Hours**				
	BIO 168	Anatomy and Physiology I	3	3	4
	BIO 169	Anatomy and Physiology II	3	3	4
	PSY 241	Developmental Psychology	3	0	3
III.	**Other Major Hours - Select 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
	OR				
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**18**

Licensed Practical Nurse Refresher Certificate (C45390)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate the ability to protect clients and health care personnel from health and environmental hazards
2. Provide nursing care for clients that incorporates knowledge of expected stages of growth and development and prevention and/or early detection of health problems
3. Provide care that assists with promotion and support of the emotional, mental, and social well-being of clients
4. Assist clients with the management of health alterations
5. Recall and comprehend information and concepts foundational to quality nursing practice
6. Utilize the LPN scope of practice when applying the nursing process to delivery of client care

		Class Hours	Lab Hours	Clin. Hours	Credit Hours
NUR 107	LPN Refresher	9	0	9	12
Total Required Hours					**12**

Practical Nursing Diploma (D45660)

Curriculum Description
The Practical Nursing curriculum provides knowledge and skills to integrate safety and quality into nursing care to meet the needs of the holistic individual which impact health, quality of life, and achievement of potential. Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes safe, individualized nursing care and participation in the interdisciplinary team while employing evidence-based practice, quality improvement, and informatics. 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.

Program Student Learning Outcomes
Upon completion of the Practical Nursing Program, the graduate will upon licensure:

1. Participate in evaluating the concepts of the holistic individual and client response in the promotion of health, wellness, illness, quality of life, and the achievement of potential.
2. Practice professional nursing behaviors, within the ethical-legal practice boundaries of the LPN, incorporating personal responsibility and accountability for continued competence.
3. Participate in providing evidence-based nursing care, from an established plan of care, based on biophysical, psychosocial and cultural needs of clients in various stages of growth and development while assisting them to attain their highest level of wellness.
4. Reinforce and /or implement the teaching plan developed and delegated by the registered nurse to promote the health of individuals, incorporating teaching and learning principles.
5. Participate in the nursing process to provide individualized, safe and effective nursing care in a structured setting under supervision.
6. Demonstrate caring behaviors in implementing culturally-competent, client-centered nursing care to diverse clients across the lifespan.
7. Participate in Quality Improvement (QI) by identifying hazards and errors and by suggesting, to the RN, changes to improve the client care process.
8. Utilize informatics to access, manage, and communicate client information.
9. Participate in collaboration with the interdisciplinary healthcare team, as assigned by the registered nurse, to support positive individual and organizational outcomes in a safe and cost effective manner.

			Class Hours	Lab Hours	Clin. Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
II.	**Required Core Courses - 30 Credit Hours**					
	NUR 101	Practical Nursing I	7	6	6	11
	NUR 102	Practical Nursing II	7	0	9	10
	NUR 103	Practical Nursing III	6	0	9	9
III.	**Other Major Required Courses - 8 Credit Hours**					
	BIO 168	Anatomy and Physiology I	3	3	0	4
	BIO 169	Anatomy and Physiology II	3	3	0	4
IV.	**Other Required Hours - 1 Credit Hour**					
	ACA 122	College Transfer Success	0	2	0	1
Total Required Hours						**45**

Surgical Technology Diploma (D45740)

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

Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment, and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations. Graduates of this program will be eligible to apply to take the National Board for Surgical Technologist and Surgical Assistance (NBSTSA). Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central supply processing units.

Program Student Learning Outcomes
Graduates will demonstrate knowledge on the National Board for Surgical Technologist and Surgical Assistance exam which covers perioperative care, equipment sterization and maintence, and basic science.

			Class Hours	Lab Hours	Clin. Hours	Credit Hours
I.	**General Education Requirements – 6 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	CIS 110	Introduction to Computers	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 Required Courses - 8 Credit Hours**					
	* BIO 163	Basic Anatomy and Physiology	4	2	0	5
	BIO 175	General Microbiology	2	2	0	3
	* BIO 168 and BIO 169 are recommended					
IV.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 115	Success & Study Skills	0	2	0	1
Total Required Hours						**48**

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.

ASSOCIATE OF APPLIED SCIENCE HUMANITIES/FINE ARTS AND SOCIAL BEHAVIORAL SCIENCE ELECTIVES

Electives should be taken from the following:

Humanities/Fine Arts Elective Choices: ART 111, ART 114, ART 115, COM 231, ENG 231, ENG 232, ENG 241, ENG 242, ENG 262, HUM 110, HUM 115, HUM 120, HUM 122, HUM 130, HUM 170, HUM 211, HUM 212, HUM 230, MUS 110, MUS 112, MUS 113, MUS 114, PHI 215, PHI 240, REL 110, REL 111, REL 211, REL 212, SPA 111, SPA 112, SPA 211, SPA 212

Social/Behavioral Sciences Elective Choices: ANT 210, ANT 220, ECO 251, ECO 252, GEO 111, HIS 111, HIS 112, HIS 131, HIS 132, POL 120, POL 220, PSY 150, PSY 237, PSY 241, PSY 281, SOC 210, SOC 213, SOC 220

Accounting Degree (A25100)

Curriculum Description
The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

Program Student Learning Outcomes
Graduates will be able to:

1. Recognize and prepare commonly used financial statements, their components and how information from business transactions flows into these statements (Outcome also addresses: Bookkeeping Certificate, Accounting Diploma, Certificate in General Accounting, Certificate in Computerized Accounting, Payroll, A/R, A/P Clerk Certificate)
2. Demonstrate progressive learning in the elements of managerial decision making, including budgeting, break-even analysis, continue/discontinue business segment, buy or make, etc. (Outcome also addresses: Bookkeeping Certificate, Accounting Diploma, Certificate in General Accounting, Certificate in Computerized Accounting, Payroll, A/R, A/P Clerk Certificate)
3. Demonstrate progressive learning of various tax issues and tax forms related to individuals. (Outcome also addresses: Bookkeeping Certificate, Accounting Diploma, Certificate in Computerized Accounting)
4. Demonstrate knowledge in setting up a computerized set of accounting books for a "for profit" entity. (Outcome also addresses: Accounting Diploma, Certificate in General Accounting, Certificate in Computerized Accounting, Payroll, A/R, A/P Clerk Certificate)
4. Demonstrate knowledge in preparing required documentation, journal entries, adjustments and closings pertaining to the payroll function of a business. (Outcome also addresses Accounting Diploma, Certificate in General Accounting, Payroll, A/R, A/P Clerk Certificate)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
		Humanities elective	3	0	3
	COM 231	Public Speaking or	3	0	3
	ENG 112	Argument-Based Research	3	0	3
	*MAT 143	Quantitative Literacy Track B or	3	0	3
	*MAT 152	Statistical Methods I Track A	3	2	4
	*A math course higher than MAT 152 may be substituted.				
II.	**Required Core Courses - 15 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	ACC 121	Prin of Managerial Acct	3	2	4
	ACC 220	Intermediate Acct I	3	2	4
	BUS 115	Business Law I	3	0	3
III.	**Required Subject Courses - 9 Credit Hours**				
	ACC 129	Individual Income Tax	2	2	3
	ECO 251	Prin of Microeconomics	3	0	3
	CIS 110	Introduction to Computers	2	2	3
IV.	**Other Major Required Courses - 26 Credit Hours**				
	ACC 122	Principles of Financial Accounting II	3	0	3
	ACC 140	Payroll Accounting	1	2	2
	ACC 150	Accounting Software Application	1	2	2
	ACC 180	Practices in Bookkeeping	3	0	3
	WBL 110	World of Work	1	0	1
	CTS 130	Spreadsheet	2	2	3
	BUS 110	Introduction to Business	3	0	3
	BUS 125	Personal Finance	2	2	3

			Class Hours	Lab Hours	Credit Hours
	Choose 6 credits from the following list:				
	BUS 137	Principles of Management	3	0	3
	BUS 225	Business Finance	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
	CSC 139	Visual BASIC Programming	2	3	3
IV.	**Other Required Hours - 1 Credit Hours**				
	ACA 115	Success and Study Skills	1	0	1
		OR			
	ACA 122	College Transfer Success	1	0	1
Total Required Hours					**66/67a**

Accounting Diploma (D25100)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Expository Writing	3	0	3
II.	**Required Core Courses - 15 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	ACC 121	Prin of Managerial Acct	3	2	4
	ACC 220	Intermediate Acct I	3	2	4
	BUS 115	Business Law I	3	0	3
III.	**Required Subject Courses - 9 Credit Hours**				
	ACC 129	Individual Income Tax	2	2	3
	ECO 251	Prin of Microeconomics	3	0	3
	CIS 110	Introduction to Computers	2	2	3
IV.	**Other Major Required Courses - 13 Credit Hours**				
	ACC 122	Principles of Financial Accounting II	3	0	3
	ACC 140	Payroll Accounting	1	2	2
	ACC 150	Accounting Software Application	1	2	2
	ACC 180	Practices in Bookkeeping	3	0	3
	CTS 130	Spreadsheet	2	2	3
IV.	**Other Required Hours - 1 Credit Hours**				
	ACA 115	Success and Study Skills	1	0	1
		OR			
	ACA 122	College Transfer Success	1	0	1
Total Required Hours					**40**

Accounting Certificates

		Class Hours	Lab Hours	Credit Hours
Computerized Accounting – 12 Credit Hours (C251002)				
ACC 120	Prin of Financial Acct	3	2	4
ACC 129	Individual Income Tax	2	2	3
ACC 150	Accounting Software Application	1	2	2
CIS 110	Introduction to Computers	2	2	3
General Accounting – 12 Credit Hours (C251001)				
ACC 120	Prin of Financial Acct	3	2	4
ACC 121	Prin of Managerial Acct	3	2	4
ACC 140	Payroll Accounting	1	2	2
ACC 150	Accounting Software Application	1	2	2
Payroll Accounting, A/R, A/P Clerk – 14 Credit Hours (C251003)				
ACC 120	Prin of Financial Acct	3	2	4
ACC 122	Principles of Financial Accounting II	3	0	3
ACC 140	Payroll Accounting	1	2	2
ACC 150	Accounting Software Application	1	2	2
ACC 180	Practices in Bookkeeping	3	0	3

Advertising and Graphic Design Degree (A30100)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate an understanding of the principles and elements of design through hands-on application
2. Demonstrate proficiency in design application, analysis, specification and creation of typographical elements
3. Produce quality illustrations from concept to finished artwork
4. Utilize software applications to creatively manipulate and illustratively build digital images which accomplish the design objectives
5. Prepare and professionally present an effective portfolio and related self-promotional materials
6. Create effective photographic images for the purpose of communicating a message

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		Humanities Elective	3	0	3
		Social Science Elective	3	0	3
II.	**Required Core Courses - 7 Credit Hours**				
	GRD 110	Typography I	2	2	3
	GRD 280	Portfolio Design	2	4	4
III.	**Required Subject Courses - 22 Credit Hours**				
	DES 135	Principles & Elements of Design I	2	4	4
	GRD 121	Drawing Fundamentals I	1	3	2
	GRD 131	Illustration I	1	3	2
	GRD 141	Graphic Design I	2	4	4
	GRD 142	Graphic Design II	2	4	4
	GRD 151	Computer Design Basics	1	4	3
	GRD 152	Computer Design Tech I	1	4	3
IV.	**Other Major Required Courses - 27 Credit Hours**				
	GRD 132	Illustration II	1	3	2
	GRD 153	Computer Design Tech II	1	4	3
	GRD 160	Photo Fundamentals I	1	4	3
	GRD 161	Photo Fundamentals II	1	4	3
	GRD 162	Photography Portfolio	1	4	3
	GRD 241	Graphic Design III	2	4	4
	GRD 242	Graphic Design IV	2	4	4
	GRD 263	Illustrative Imaging	1	4	3
	GRD 281	Design of Advertising	1	3	2
	4 Semester Hours To Be Selected From The Following:				4
	ART 131	Drawing I (0-6-3)			
	ART 132	Drawing II (0-6-3)			
	ART 140	Basic Painting (0-4-2)			
	BUS 230	Small Business Management (3-0-3)			
	CIS 110	Introduction to Computers (2-2-3)			
	GRD 133	Illustration III (1-3-2)			
	GRD 167	Photographic Imaging I (1-4-3)			
	GRD 168	Photographic Imaging II (1-4-3)			
	GRD 210	Airbrush I (1-2-2)			
	GRD 233	Product Illustration (1-3-2)			

				Class Hours	Lab Hours	Credit Hours
	MKT 220	Advertising and Sales Promotion	(3-0-3)			
	SPA 120	Spanish for the Workplace	(3-0-3)			
	WBL 111	Work-Based Learning I	(0-10-1)			
	WBL 121	Work-Based Learning II	(0-10-1)			
	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 285	Emerging Web Technologies	(2-2-3)			
V.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills		0	2	1
		OR				
	ACA 122	College Transfer Success		0	2	1
Total Required Hours						**76**

Advertising and Graphic Design Certificates

			Class Hours	Lab Hours	Credit Hours
Advertising and Graphic Arts Design – 16 Credit Hours (C30100)					
	DES 135	Principles & Elements of Design I	2	4	4
	GRD 121	Drawing Fundamentals I	1	3	2
	GRD 141	Graphic Design I	2	4	4
	GRD 151	Computer Design Basics	1	4	3
	GRD 160	Photo Fundamentals I	1	4	3
Photography – 16 Credit Hours (C3010001)					
	GRD 141	Graphic Design I	2	4	4
	GRD 151	Computer Design Basics	1	4	3
	GRD 160	Photo Fundamentals I	1	4	3
	GRD 161	Photo Fundamentals II	1	4	3
	GRD 162	Photo Portfolio	1	4	3

Agribusiness Technology Degree (A15100)

Curriculum Description
A program that prepares individuals to manage agricultural businesses and agriculturally related operations within diversified corporations. Potential course works includes instruction in agriculture, agricultural specialization, business management, accounting, finance, marketing, human resources management, and other managerial responsibilities. Students will learn the fundamentals of agriculture, focusing on crop production and business. Emphasis is placed on entrepreneurial and field training. Students will also learn the basic principles of our economic system and government policies and programs relating to agriculture. Graduates should qualify for a variety of jobs in agricultural businesses such as equipment, feed, and agricultural supply sales; store management; farm operations; wholesale and retail produce management; nursery operations; and environmental and agricultural education.

Program Student Learning Outcomes
Graduates will be able to:

1. Recognize and describe the role of Agribusiness in the US and how it impacts the local community.
2. Define and describe the difference between Agribusiness and traditional business.
3. Explain the impact of sustainable agriculture in our environment and our economy.
4. Describe sustainable land care practices and how they impact soil and water quality.
5. Students shall be able to complete loan application procedures and explain the basic laws affecting the agriculture industry.
6. Discuss various economic principles and articulate the impact that those principles have on domestic and global economies.
7. Explain the role of marketing in Agribusiness Technology and apply core marketing principles to the development of Agribusiness strategy and decision-making process.

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 16 Credit Hours**				
	ENG 111	Expository Writing	3	0	3
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline			
	BIO 111	General Biology I	3	3	4
	ECO 252	Principles of Macroeconomics	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 28 Credit Hours**				
	ANS 110	Animal Science	3	0	3
	AGR 139	Introduction to Sustainable Agriculture	3	0	3
	AGR 140	Agriculture Chemicals	3	0	3
	AGR 170	Soil Science	3	0	3
	AGR 210	Agriculture Accounting	1	4	3
	AGR 212	Farm Business Management	3	0	3
	AGR 213	AG Law & Finance	3	0	3
	AGR 214	Agriculture Marketing	3	0	3
	AGR 261	Agronomy	2	2	3
	WBL 111	Work-Based Learning	0	10	1
III.	**Other Major Required Courses - 24 Credit Hours**				
	AGR 111	Basic Farm Maintenance	1	3	2
	CIS 110	Introduction to Computers	2	2	3
	BUS 125	Personal Finance	3	0	3
	ECO 251	Microeconomics	3	0	3
	HOR 150	Introduction to Horticulture	2	0	2
	Concentration Track: Choose one concentration track (Equine Business or General Business) to complete the requirements for "Other major Hours"				
	Track 1: EQUINE BUSINESS				
	ANS 115	Animal Feeds & Nutrition	2	2	3
	ANS 116	Introduction to Equine Industry	3	0	3
	ANS 180	Equine Production	3	2	4
	Track 2: GENERAL BUSINESS				
	MKT 120	Principles of Marketing	3	0	3
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**69**

Agribusiness Technology Diploma (D15100)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 13 Credit Hours**				
	BIO 111	General Biology	3	3	4
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	Communication:	May Choose 1 Course From Below:			
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline	3	0	3
II.	**Major Requirements - 18 Credit Hours**				
	AGR 139	lntro to Sustainable Agriculture	3	0	3
	AGR 170	Soil Science	2	2	3
	AGR 212	Farm Business Management	3	0	3
	AGR 214	Agriculture Marketing	3	0	3
	ANS 110	Animal Science	3	0	3
	AGR 140	Agriculture Chemicals	2	2	3
III.	**Other Major Required Courses - 13 Credit Hours**				
	AGR 111	Basic Farm Maintenance	1	3	2
	BUS 110	Introduction to Business	3	0	3
	BUS 125	Personal Finance	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	HOR 150	Introduction to Horticulture	2	0	2
IV.	**Other Required Hours - 1 Credit Hours**				
	ACA 115	Success and Study Skills	1	0	1
		OR			
	ACA 122	College Transfer Success	1	0	1
Total Required Hours					**48**

Agribusiness Technology Certificates

		Class Hours	Lab Hours	Credit Hours
Agriculture Certificate - 14 Credit Hours (C1510001)				
AGR 139	Introduction to Sustainable Agriculture	3	0	3
ANS 110	Animal Science	3	0	3
AGR 170	Soil Science	3	0	3
BUS 125	Personal Finance	3	0	3
AGR 111	Basic Farm Maintenance	1	3	2
Equine Business Technology Certificate - 13 Credit Hours (C15100)				
AGR 212	Farm Business Management	3	0	3
ANS 115	Animal Feeds & Nutrition	2	2	3
ANS 116	Introduction to Equine Industry	3	0	3
ANS 180	Equine Production	3	2	4

Basic Law Enforcement Training Certificate (C55120)

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.

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate an understanding of North Carolina criminal law, juvenile law, motor vehicle law, controlled substance law, civil law and alcoholic beverages law.
2. Demonstrate an understanding of patrol responsibilities that include: dealing with hazardous material, traffic crashes, in-custody transport, crowd management, radio procedures, rapid deployment, vehicle stops, answering calls for service and anti-terrorism.
3. Describe the fundamental communication aspects of law enforcement that include: dealing with victims, domestic violence response, ethics in policing, interacting with individuals with mental illness, crime prevention, and general communication skills.
4. Describe the fundamental tasks in the area of investigations that include: fingerprinting and photography, field note-taking and report writing, criminal investigation procedures, interviewing, dealing with controlled substances and human trafficking.
5. Demonstrate proficiency in the following law enforcement basics: firearms, first aid, driving, physical agility, and subject control arrest techniques.
6. Describe proper procedures for sheriff specific responsibilities that include: civil process, detention duties and court duties.

Basic Law Enforcement Training - 19 Credit Hours (C 55 12 0)

CJC 100	Basic Law Enforcement Training	9	30	19

Broadcasting and Production Technology Degree (A30120)

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.

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate proficiency in operating a video camera in both field and studio modes evaluated by the camera rubric
2. Use basic three point lighting, both in studio and field, according to industry standards
3. Identify legal issues and regulations of broadcast stations as measured by specific assignments and testing questions
4. Write both a one-column radio script and a two-column video script according to industry formatting standards
5. Successfully edit video and audio with a professional non-linear editing software program as evaluated by a specific rubric
6. Identify organization and strategies used by broadcast stations as measured by specific testing questions
7. Operate audio boards and audio production equipment according to industry standards
8. Demonstrate professional speaking and presentation skills for audio and video productions, according to industry standards

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	ENG 112	Writing/Research in the Disc	3	0	0	3
		OR				
	COM 231	Public Speaking (3-0-3)				
	MAT 143	Quantitative Literacy	2	2	0	3
		OR				
	MAT 152	Statistical Methods I (3-2-4)				
		Humanities Elective	3	0	0	3
		Social Science Elective	3	0	0	3
II.	**Required Core 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.	**Other Major Required Courses - 31 Credit Hours**					
	Options: Select 6 credit hours from the following courses:					
	BPT 135	Radio Performance I	0	6	0	2
	BPT 136	Radio Performance II	0	6	0	2
	BPT 137	Radio Performance III	0	6	0	2
	BPT 235	TV Performance I	0	6	0	2
	BPT 236	TV Performance II	0	6	0	2
	BPT 237	TV Performance III	0	6	0	2
	Additional Major Required 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	0	0	2
	BPT 231	Video/TV Production I	2	6	0	4
	BPT 232	Video/TV Production II	2	6	0	4
	BPT 285	Broadcast Prod Capstone	1	6	0	3
	FVP 227	Multimedia Production	2	3	0	3
	WBL 111	Work-Based Learning I	0	0	10	1
	Options: Select 12 credit hours from the following courses:					
	BPT 115	Public Relations	3	0	0	3
	BPT 121	Broadcast Speech I	2	3	0	3
	BPT 135	Radio Performance I	0	6	0	2

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
	BPT 136	Radio Performance II	0	6	0	2
	BPT 137	Radio Performance III	0	6	0	2
	BPT 138	Radio Performance IV	0	6	0	2
	BPT 139	Radio Performance V	0	6	0	2
	BPT 210	Broadcast Management	3	0	0	3
	BPT 215	Broadcast Programming	3	0	0	3
	BPT 220	Broadcast Marketing	3	0	0	3
	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
	BPT 238	TV Performance IV	0	6	0	2
	BPT 239	TV Performance V	0	6	0	2
	BPT 241	Broadcast Journalism I	3	2	0	4
	BPT 242	Broadcast Journalism II	3	2	0	4
	BPT 250	Institutional Video	2	3	0	3
	BPT 255	Computer-Based Production	2	3	0	3
	BPT 260	Multi-Track Recording	2	2	0	3
	CIS 110	Introduction to Computers	2	2	0	3
	WEB 110	Internet/Web Fundamentals	2	2	0	3
	WBL 121	Work-Based Learning II	0	0	10	1
IV.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 122	College Transfer Success	0	2	0	1
Total Required Hours						**72/73**

Broadcasting and Production Technology / Audio Production Diploma (D3012001)

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
		Social Science Elective	3	0	0	3
II.	**Major Required Courses - 34 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
	BPT 121	Broadcast Speech I	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
	CIS 110	Introduction to Computers	2	2	0	3
	WBL 111	Work-Based Learning I	0	0	10	1
Total Required Hours						**40**

Broadcasting and Production Technology / Video Production Diploma (D3012002)

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
		Social Science Elective	3	0	0	3
II.	**Major Required Courses - 34 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
	BPT 231	Video/TV Production I	2	6	0	4
	BPT 232	Video/TV Production II	2	6	0	4
	BPT 235	TV Performance I	0	6	0	2
	BPT 236	TV Performance II	0	6	0	2
	BPT 237	TV Performance III	0	6	0	2
	BPT 250	Institutional Video	2	3	0	3
	CIS 110	Introduction to Computers	2	2	0	3
	WBL 111	Work-Based Learning	0	0	10	1
Total Required Hours						**40**

Broadcasting and Production Technology Certificates

		Class Hours	Lab Hours	Credit Hours
Basic Audio Production - 15 Credit Hours (C3012001)				
BPT 121	Broadcast Speech I	2	3	3
BPT 131	Audio/Radio Production I	2	6	4
BPT 132	Audio/Radio Production II	2	6	4
BPT 135	Radio Performance I	0	6	2
BPT 136	Radio Performance II	0	6	2
BPT 260	Multi-Track Recording	2	2	3
Basic Video Production - 15 Credit Hours (C3012002)				
BPT 140	Introduction to TV Systems	2	0	2
BPT 231	Video/TV Production I	2	6	4
BPT 232	Video/TV Production II	2	6	4
BPT 235	TV Performance I	0	6	2
BPT 236	TV Performance II	0	6	2
BPT 250	Institutional Video	2	3	3

Building Construction Technology Degree (A35140)

Curriculum Description
The Building Construction Technology curriculum prepares individuals to apply technical knowledge and skills to residential and commercial building construction and remodeling. Includes instruction in construction equipment and safety; site preparation and layout; construction estimating; print reading; building codes; framing; masonry; heating, ventilation, and air conditioning; electrical and mechanical systems; interior and exterior finishing; and plumbing. Graduates should qualify for entry-level jobs in construction and trades professions as well as positions in industry and government.

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads
2. Utilize design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models
3. Demonstrate knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications
4. Demonstrate knowledge of machines and tools, including their designs, uses, repair, and maintenance
5. Demonstrate knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions
6. Apply the practical application of engineering science and technology, including principles, techniques, procedures, and equipment to design and produce various goods and services

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15-16 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 143	Quantitative Literacy (2-2-3)			
		OR			
	MAT 152	Statistical Methods I (3-2-4)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Core Courses - 16 Credit Hours**				
	ARC 112	Constr. Matls & Methods	3	2	4
	ARC 131	Building Codes	2	2	3
	BPR 130	Print Reading – Const	3	0	3
	CMT 120	Codes and Inspections	3	0	3
	SST 140	Green Building & Design Concepts	3	0	3
III.	**Required Subject Courses - 12 Credit Hours**				
	CAR 111	Carpentry I	3	15	8
		OR			
	CST 111	Construction I	3	3	4
		AND			
	CST 112	Construction II	3	3	4
	CST 221	Statics/Structures	3	3	4
IV.	**Other Major Required Hours - 32 Credit Hours**				
	ACC 120	Principals of Financial Accounting	3	2	4
	AHR 120	HVACR Maintenance	1	3	2
	AHR 151	HVAC Duct Systems I	1	3	2
	AHR 210	Residential Building Code	1	2	2
	AHR 211	Residential System Design	2	2	3
	ALT 120	Renewable Energy Tech.	2	2	3
	ALT 250	Thermal Systems	2	2	3
	ARC 111	Intro to Arch. Technology	1	6	3
	ARC 114	Architectural CAD	1	3	2
	ART 111	Art Appreciation	3	0	3

			Class Hours	Lab Hours	Credit Hours
	BUS 115	Business Law	3	0	3
	CAB 111	Cabinetmaking I	4	9	7
	CAR 112	Carpentry II	3	15	8
	CAR 113	Carpentry III	3	9	6
	CIV 230	Construction Estimating	2	3	3
	CIV 240	Project Management	2	3	3
	CMT 210	Construction Management Fund.	3	0	3
	CMT 212	Total Safety Performance	3	0	3
	CMT 214	Planning & Scheduling	3	0	3
	CST 113	Construction III	3	3	4
	CST 131	OSHA/Safety/Certification	2	2	3
	CST 211	Construction Surveying	2	3	3
	CST 244	Sustainable Bldg Design	2	3	3
	CST 251	Electrical Wiring Systems	2	2	3
	ECO 251	Principles of Microeconomics	3	0	3
	ELC 113	Residential Wiring	2	6	4
	ELC 114	Commercial Wiring	2	6	4
	MAS 140	Intro to Masonry	1	2	2
	PHY 131	Physics-Mechanics	3	2	4
	PLU 111	Intro to Basic Plumbing	1	3	2
	PLU 211	Commercial/Ind Plumbing	2	2	3
	SPA 111	Elementary Spanish I	3	0	3
	SST 110	Intro to Sustainability	3	0	3
	SST 120	Energy Use Analysis	2	2	3
	WLD 112	Basic Welding Processes	1	3	2
	WOL 110	Basic Construction Skills	2	3	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**76-77**

Building Construction Technology Diploma (D35140)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2 2 3)			
II.	**Required Core Courses - 16 Credit Hours**				
	ARC 112	Construction Materials & Methods	3	2	4
	ARC 131	Building Codes	2	2	3
	BPR 130	Print Reading – Construction	3	0	3
	CMT 120	Codes and Inspections	3	0	3
	SST 140	Green Building & Design Concepts	3	0	3
III.	**Required Subject Courses - 12 Credit Hours**				
	CAR 111	Carpentry I	3	15	8
		OR			
	CST 111	Construction I	3	3	4
		AND			
	CST 112	Construction II	3	3	4
	CST 221	Statics/Structures	3	3	4
IV.	**Other Major Required Hours - 6 Credit Hours**				
	CST 131	OSHA/Safety/Certification	2	2	3
	WOL 110	Basic Construction Skills	2	3	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**41**

Building Construction Technology Certificates

		Class Hours	Lab Hours	Credit Hours
Advanced Carpentry - 14 Credit Hours (C3514002)				
CAR 112	Carpentry II	3	15	8
CST 131	OSHA/Safety/Certification	2	2	3
CMT 120	Codes and Inspections	3	0	3
Basic Air Conditioning – 13 Credit Hours (C3514004)				
AHR 151	HVAC Duct Systems I	1	3	2
AHR 210	Residential Building Code	1	2	2
AHR 211	Residential System Design	2	2	3
BPR 130	Print Reading – Construction	3	0	3
CST 131	OSHA/Safety/Certification	2	2	3
Basic Carpentry - 14 Credit Hours (C3514001)				
BPR 130	Print Reading – Construction	3	0	3
CAR 111	Carpentry I	3	15	8
ARC 131	Building Codes	2	2	3
Basic Construction – 13 Credit Hours (C3514008)				
BPR 130	Print Reading – Construction	3	0	3
CST 251	Electrical Wiring Systems	2	2	3
MAS 140	Introduction to Masonry	1	2	2
PLU 111	Introduction to Basic Plumbing	1	3	2
WOL 110	Basic Construction Skills	2	3	3
Basic Plumbing - 14 Credit Hours (C3514003)				
BPR 130	Print Reading – Construction	3	0	3
CST 131	OSHA/Safety/Certification	2	2	3
PLU 111	Introduction to Basic Plumbing	1	3	2
PLU 211	Commercial/Industrial Plumbing	2	2	3
WOL 110	Basic Construction Skills	2	3	3
Construction Management – 12 Credit Hours (C3514011)				
CMT 120	Codes and Inspections	3	0	3
CMT 210	Construction Management Fund.	3	0	3
CMT 212	Total Safety Performance	3	0	3
CST 131	OSHA/Safety/Certification	2	2	3
Elementary Carpentry – 14 Credit Hours (C3514009)				
BPR 130	Print Reading – Construction	3	0	3
CAR 111	Carpentry I	3	15	8
WOL 110	Basic Construction Skills	2	3	3
General Contractor Licensing Preparation - 13 Credit Hours (C3514005)				
ARC 112	Construction Materials and Methods	3	2	4
ARC 131	Building Codes	2	2	3
BPR 130	Print Reading – Construction	3	0	3
CST 131	OSHA/Safety/Certification	2	2	3
Sustainable Building Design – 18 Credit Hours (C3514010)				
ARC 111	Introduction to Arch Technology	1	6	3
ARC 112	Construction Materials & Methods	3	2	4
ARC 131	Building Codes	2	2	3
ARC 114	Architectural CAD	1	3	2
SST 110	Introduction to Sustainability	3	0	3
SST 140	Green Building & Design Concepts	3	0	3

Business Administration Degrees

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate an understanding of the role of accounting and finance in the management process
2. Discuss various economic principles and articulate the impact that those principles have on domestic and global economies
3. Explain the role of marketing in the business environment and apply core marketing principles to the development of business strategy and decision-making process
4. Review the impact of leadership, employee behavior, group dynamics, and the team-based approach in defining organizational culture
5. Define the ethical and legal framework in which business decisions are made.

Business Administration Degree (A25120B)
Banking and Finance

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 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
IV.	**Other Major Requirements – Take 16 Credit Hours**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	ACC 150	Software Applications	2	0	2
	BUS 125	Personal Finance	3	0	3
	BUS 260	Business Communications	3	0	3
	CTS 130	Spreadsheet	2	2	3
	WBL 110	World of Work	1	0	1
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66/67**

Business Administration Degree (A25120A)
Business Accounting

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Major Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements – Take 15 Credit Hours**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	ACC 180	Practices in Bookkeeping	3	0	3
	ACC 220	Intermediate Accounting	3	2	4
	CTS 130	Spreadsheet	2	2	3
	WBL 110	World of Work	1	0	1
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**65/66**

Business Administration Degree (A25120T)
Business Technology

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements – Take 17 Credit Hours**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	CTS 115	Information Systems Business Concepts	3	0	3
	CTS 130	Spreadsheet	2	2	3
	DBA 110	Database Concepts	2	3	3
	WBL 110	World of Work	1	0	1
	WEB 210	Web Design	2	2	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**67/68**

Business Administration Degree (A25120E)
Entrepreneurial Innovations

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements – Take 17 Credit Hours**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	BUS 139	Entrepreneurship I	3	0	3
	BUS 230	Small Business Management	3	0	3
	CTS 130	Spreadsheet	2	2	3
	ETR 220	Innovation and Creativity	3	0	3
	WBL 110	World of Work	1	0	1
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**67/68**

Business Administration Degree (A25120G)
General Business

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	CTS 130	Spreadsheet	2	2	3
	WBL 110	World of Work	1	0	1
	Take 8 Credits From:				
	ACC 129	Individual Income Tax	2	2	3
	ACC 140	Payroll Accounting	1	2	2
	ACC 150	Accounting Software Applications	1	2	2
	ACC 180	Bookkeeping	2	2	3
	ACC 220	Intermediate Accounting I	3	2	4
	BUS 139	Entrepreneurship I	2	2	3
	BUS 225	Business Finance	2	2	3
	BUS 230	Small Business Management	3	0	3
	CIS 115	Introduction to Programming and Logic	3	0	3
	CTS 115	Information Systems Business Concepts	3	0	3
	DBA 110	Database Concepts	2	3	3
	ETR 220	Innovation and Creativity	3	0	3
	HRM 110	Introduction to Hospitality and Tourism	3	0	3
	HRM 140	Legal Issues - Hospitality	3	0	3
	HRM 150	Training for Hospitality	3	0	3
	MKT 123	Fundamentals of Selling	3	0	3
	MKT 220	Advertising and Sales Promotion	3	0	3
	MKT 223	Customer Service	3	0	3
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 136	Word Processing	2	2	3
	OST 286	Professional Development	3	0	3
	WEB 210	Web Design	2	2	3
	WEB 285	Emerging Web Technologies	2	2	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66/69**

Business Administration Degree (A25120H)
Hospitality

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements – Take 16 Credit Hours**				
	CTS 130	Spreadsheet	2	2	3
	HRM 110	Introduction to Hospitality and Tourism	3	0	3
	HRM 140	Legal Issues - Hospitality	3	0	3
	HRM 150	Training for Hospitality	3	0	3
	MKT 223	Customer Service	3	0	3
	WBL 110	World of Work	1	0	1
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66/67**

Business Administration Degree (A25120M)
Marketing and Sales

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ECO 252	Principles of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		Humanities elective			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
II.	**Required Core Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Concentration Requirements – 12 Credit Hours**				
	BUS 125	Personal Finance	3	0	3
	BUS 153	Human Resource Management	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	BUS 260	Business Communication	3	0	3
IV.	**Other Major Requirements – Take 17 Credit Hours**				
	ACC 121	Principles of Managerial Accounting	3	2	4
	CTS 130	Spreadsheet	2	2	3
	MKT 123	Fundamentals of Selling	3	0	3
	MKT 223	Customer Service	3	0	3
	WBL 110	World of Work	1	0	1
	WEB 285	Emerging Web Technologies	2	2	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success and Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**67/68**

Business Administration Diploma (D25120)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education - 9 Credit Hours**				
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disciplines	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
		General Education Elective	3	0	3
II.	**Required Courses - 22 Credit Hours**				
	ACC 120	Principles of Financial Accounting	3	2	4
	BUS 110	Introduction to Business	3	0	3
	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	Principles of Microeconomics	3	0	3
	MKT 120	Principles of Marketing	3	0	3
III.	**Other Major Required Courses - 9 Credit Hours**				
	BAF 110	Principles of Banking	3	0	3
		OR			
	BUS 153	Human Resource Management	3	0	3
	BUS 125	Personal Finance	3	0	3
	CTS 130	Spreadsheet	2	2	3
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**41**

Business Administration Certificates

		Class Hours	Lab Hours	Credit Hours
Banking and Finance - 13 Credit Hours (C2512007)				
ACC 120	Principles of Financial Accounting	3	2	4
BAF 110	Principles of Banking	3	0	3
BAF 222	Money and Banking	3	0	3
BUS 125	Personal Finance	3	0	3
Business Accounting - 14 Credit Hours (C2512001)				
ACC 120	Principles of Financial Accounting	3	2	4
ACC 121	Principles of Managerial Accounting	3	2	4
ACC 180	Practices in Bookkeeping	3	0	3
CIS 110	Introduction to Computers	2	2	3
Business Administration - 15 Credit Hours (C25120)				
BUS 110	Introduction to Business	3	0	3
BUS 115	Business Law I	3	0	3
BUS 137	Principles of Management	3	0	3
MKT 120	Principles of Marketing	3	0	3
CIS 110	Introduction to Computers	2	2	3
Business Economics - 13 Credit Hours (C2512002)				
ACC 120	Principles of Financial Accounting	3	2	4
BUS 110	Introduction to Business	3	0	3
ECO 251	Principles of Microeconomics	3	0	3
ECO 252	Principles of Macroeconomics	3	0	3
Business Technology - 12 Credit Hours (C2512004)				
CIS 110	Introduction to Computers	2	2	3
CTS 130	Spreadsheet	2	2	3
DBA 110	Database Concepts	2	3	3
WEB 210	Web Design	2	2	3
Entrepreneurial Innovations - 12 Credit Hours (C2512005)				
BUS 110	Introduction to Business	3	0	3
BUS 139	Entrepreneurship I	3	0	3
BUS 230	Small Business Management	3	0	3
ETR 220	Innovation and Creativity	3	0	3
Hospitality - 12 Credit Hours (C2512003)				
HRM 110	Introduction to Hospitality and Tourism	3	0	3
MKT 223	Customer Service	3	0	3
HRM 140	Legal Issues Hospitality	3	0	3
HRM 150	Training for Hospitality	3	0	3
Marketing And Sales - 12 Credit Hours (C2512006)				
MKT 120	Principles of Marketing	3	0	3
MKT 123	Fundamentals of Selling	3	0	3
MKT 223	Customer Service	3	0	3
WEB 285	Emerging Web Technologies	3	0	3

Collision Repair and Refinishing Technology Diploma (D60130)

Curriculum Description
The Collision Repair and Refinishing Technology curriculum prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Program Student Learning Outcomes
Graduates will be able to:
1. Understand and apply all safety, environmental and industry standards as related to collision repair
2. Demonstrate knowledge of materials available to technicians for refinishing of automobiles
3. Demonstrate the ability to use spray equipment to match modern auto finishes
4. Demonstrate the ability to figure the cost of materials, parts, and labor for estimating purposes
5. Understand automotive electrical systems and how to diagnose problems

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
II.	**Required Core Courses - 5 Credit Hours**				
	TRN 170	PC Skills for Transp	1	2	2
	TRN 180	Basic Welding for Transp	1	4	3
III.	**Required Subject Courses - 15 Credit Hours**				
	AUB 111	Painting & Refinishing I	2	6	4
	AUB 112	Painting & Refinishing II	2	6	4
	AUB 121	Non-Structural Damage I	1	4	3
	AUB 131	Structural Damage I	2	4	4
IV.	**Other Major Required Courses - 22 Credit Hours**				
	AUB 114	Special Finishes	1	2	2
	AUB 122	Non-Structural Damage II	2	6	4
	AUB 132	Structural Damage II	2	6	4
	AUB 136	Plastics and Adhesives	1	4	3
	AUB 150	Automotive Detailing	1	3	2
	AUB 160	Body Shop Operations	1	0	1
	AUB 162	Autobody Estimating	1	2	2
	TRN 180A	Basic Welding for Transp Lab	0	3	1
	CIS 110	Introduction to Computers	2	2	3
		OR			
	BUS 230	Small Business Management (3-0-3)			
Total Required Hours					**48**

Collision Repair and Refinishing Technology Certificates

			Class Hours	Lab Hours	Credit Hours
Advanced Collision Repair and Refinishing – 12 Credit Hours (C6013002)					
	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 Collision Repair and Refinishing – 15 Credit Hours (C6013001)					
	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
	TRN 180	Basic Welding for Transp	1	4	3
	TRN 180A	Basic Welding for Transp Lab	0	3	1

Computer Engineering Technology Degree (A40160)

Curriculum Description

The Computer Engineering Technology curriculum prepares the students to use basic engineering principles and technical skills for installing, servicing, and maintaining computers, peripherals, networks, and microprocessor and computer controlled equipment. Includes instruction in mathematics, computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation. Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Program Student Learning Outcomes

Graduates will be able to:

1. Understand and mathematically demonstrate basic engineering-related laws and theories (e.g.. Ohm's Law, Kirchhoff's Laws)
2. Demonstrate competency with field test instruments (e.g.. Digital Multimeter, Oscilloscope)
3. Demonstrate competency with semiconductor applications (e.g.. Transistor theory, sensors, I.C.'s)
4. Understand and demonstrate basic digital logic design and troubleshooting (e.g.. Gate logic, digital devices)
5. Demonstrate competency with automation technology (e.g.. PLC programming, Microcontrollers)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Dis	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 121	Algebra/Trigonometry I	2	2	3
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Technical Core Courses – 16 Credit Hours**				
	ELC 138	DC Circuit Analysis	3	3	4
	ELC 139	AC Circuit Analysis	3	3	4
	ELN 131	Analog Electronics I	3	3	4
	ELN 133	Digital Electronics	3	3	4
III.	**Program Major Required Courses - 12 Credit Hours**				
	CET 111	Computer Upgrade/Repair I	2	3	3
		OR			
	CTS 120	Hardware/Software Support (2-3-3)			
	CET 161	Procedural Programming	2	3	3
		OR			
	CSC 134	C++ Programming (2-3-3)			
		OR			
	CSC 139	Visual BASIC Programming (2-3-3)			
	ELN 152	Fabrication Techniques	1	3	2
	ELN 232	Introducation to Microprocessors	3	3	4
IV.	**Other Major Required Courses - 29/30 Credit Hours**				
	Take all of the following courses:				
	CIS 110	Intro to Computers	2	2	3
	EGR 110	Intro to Engineering Tech	1	2	2
	ELC 127	Software for Technicians	1	3	2
	ELC 128	Intro to PLC	2	3	3
	ELC 132	Electrical Drawings	1	3	2
	Automation				
	Choose one of the following courses:				
	ATR 211	Robot Programming	2	3	3
	ATR 215	Sensors and Transducers (2-3-3)			
	ATR 218	Work Cell Integration (2-3-3)			

			Class Hours	Lab Hours	Credit Hours
	System Design				
	Choose one of the following courses:				
	CET 245	Internet Servers (2-3-3)			
	CET 251	Software Eng Principles	3	3	4
	ELN 233	Microprocessor Systems (3-3-4)			
	Mathematics				
	Choose one of the following courses:				
	MAT 122	Algebra/Trigonometry II	2	2	3
	MAT 152	Statistical Methods I (3-2-4)			
	MAT 172	Precalculus Trigonometry (3-2-4)			
	MAT 271	Calculus I (3-2-4)			
	Physics I				
	Choose one of the following courses:				
	PHY 131	Physics-Mechanics	3	2	4
	PHY 151	College Physics I (3-2-4)			
	Physics II				
	Choose one of the following courses:				
	PHY 132	Physics-Elect & Magnetism	3	2	4
	PHY 152	College Physics II (3-2-4)			
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**73/75**

Computer Engineering Technology Diploma (D40160)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 9/10 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 110	Math Measurement and Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Social Science Elective	3	0	3
II.	**Technical Core Courses - 16 Credit Hours**				
	ELC 138	DC Circuit Analysis	3	3	4
	ELC 139	AC Circuit Analysis	3	3	4
	ELN 131	Analog Electronics I	3	3	4
	ELN 133	Digital Electronics	3	3	4
III.	**Program Major Required Courses - 7 Credit Hours**				
	CET 111	Computer Upgrade/Repair I	2	3	3
		OR			
	CTS 120	Hardware/Software Support (2-3-3)			
	ELN 232	Introduction to Microprocessors	3	3	4
IV.	**Other Major Courses - 5 Credit Hours**				
	Take all of the following courses:				
	EGR 110	Introduction to Engineering Tech	1	2	2
	ELC 128	Intro to PLC	2	3	3
V.	**Other Required Hours - 1 Credit Hour**				
	Choose one of the following courses:				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**38/39**

Computer Engineering Technology Certificate (C40160)

		Class Hours	Lab Hours	Credit Hours
Choose a minimum of 12 Credit Hours from the following courses:				
ATR 211	Robot Programming	2	3	3
CET 111	Computer Upgrade and Repair I	2	3	3
CET 161	Procedural Programming	2	3	3
EGR 110	Intro to Engineering Tech	1	2	2
ELC 127	Software for Technicians	1	3	2
ELC 128	Intro to Programmable Logic Controllers	2	3	3
ELC 138	DC Circuit Analysis	3	3	4
ELC 139	AC Circuit Analysis	3	3	4
ELN 131	Analog Electronics I	3	3	4
ELN 133	Digital Electronics	3	3	4
ELN 152	Fabrication Techniques	1	3	2
ELN 232	Introduction to Microprocessors	3	3	4
Total Required Hours				**12**

Computer-Integrated Machining Diploma (D50210)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:
1. Understand and evaluate a basic blueprint using specified NIMS tolerances and industry standards
2. Identify work orders and write out or modify as needed correctly, calculate information needed to machine parts to correct specs
3. Locate the part location information on computer and enter parts in the CNC machine, and complete a CNC machine part
4. Construct input milling by properties, and simulate cutting operation of 3-D surface and solid modeling features by computer-assisted methods
5. Evaluate machining process during cutting operation and adjust initial variable settings to achieve maximum results
6. Create a multiple part mechanism which requires both CNC milling and turning to manufacture a capstone

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 110	Math Measurement & Literacy	2	2	3
II.	**Required Subject Courses – 12 Credit Hours**				
	BPR 111	Print Reading	1	2	2
	MAC 121	Introduction to CNC	2	0	2
	MAC 141	Machine Applications I	2	6	4
	MAC 142	Machine Applications II	2	6	4
III.	**Other Major Required Courses – 30 Credit Hours**				
	MAC 122	CNC Turning	1	3	2
	MAC 124	CNC Milling	1	3	2
	MAC 141A	Machining Applications I Lab	0	6	2
	MAC 142A	Machining Applications II Lab	0	6	2
	MAC 151	Machining Calculations	1	2	2
	MAC 222	Advanced CNC Turning	1	3	2
	MAC 224	Advanced CNC Milling	1	3	2
	MAC 233	Applications in CNC Machining	2	12	6
	MEC 231	Computer Aided Manufacturing I	1	4	3
	MEC 110	INtro to CAD/CAM	1	2	2
		Technical Elective – Choose 5 Credit Hours			5
		AUT 211 Automotive Machining (2-6-4)			
		CIS 110 Intro to Computers (2-2-3)			
		DFT 121 Intro to GD&T (1-2-2)			
		DFT 154 Intro Solid Modeling (2-3-3)			
		ISC 121 Environmental Health and Safety (3-0-3)			
		MAC 241 Jigs & Fixtures I (2-6-4)			
		MEC 232 Computer Aided Manufacturing II (1-4-3)			
		MAC 234 Adv Multi-Axis Machining (2-3-3)			
		MAC 234A Adv Multi-Axis Machining Lab (0-3-1)			
Total Required Hours					**48**

Computer-Integrated Machining Certificates

		Class Hours	Lab Hours	Credit Hours
Advanced Motorsports Machining Certificate - 15 Hours (C5021004)				
AUT 211	Automotive Machining	2	6	4
DFT 154	Intro Solid Modeling	2	3	3
MAC 241	Jigs & Fixtures I	2	6	4
MAC 234	Adv Multi-Axis Machining	2	3	3
MAC 234A	Adv Multi-Axis Machining Lab	0	3	1
CNC Certificate - 16 Hours (C5021002)				
MAC 121	Introduction to CNC	2	0	2
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MAC 222	Advanced CNC Turning	1	3	2
MAC 224	Advanced CNC Milling	1	3	2
MAC 233	Applications in CNC Machining	2	12	6
Machining Certificate - 12 Hours (C5021001)				
MAC 141	Machine Applications I	2	6	4
MAC 141A	Machining Applications I Lab	0	6	2
MAC 142	Machine Applications II	2	6	4
MAC 142A	Machining Applications II Lab	0	6	2
Motorsports Machining Certificate - 16 Hours (C5021003)				
MAC 141	Machine Applications I	2	6	4
MAC 141A	Machining Applications I Lab	0	6	2
BPR 111	Print Reading	1	2	2
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MAC 121	Introduction to CNC	2	0	2
MAC 151	Machining Calculations	1	2	2

Cosmetology Degree (A55140)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate proficiency in professional imaging, hair design, skin care, and nail care
2. Demonstrate an understanding of chemical processes
3. Demonstrate an understanding of multicultural practices
4. Demonstrate an understanding of sanitation/infection control
5. Demonstrate an understanding of business and computer principles

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	ENG 112	Writing/Research in the Disc	3	0	0	3
		OR				
	COM 231	Public Speaking	3	0	3	3
	MAT 110	Math Measurement & Literacy	2	2	0	3
		Humanities Elective	3	0	0	3
		Social Science Elective	3	0	0	3
II.	**Required Core Courses - 34 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
	COS 117	Cosmetology Concepts IV	2	0	0	2
III.	**Other Major Required Courses - 14 Credit Hours**					
	CIS 110	Introduction to Computers	2	2	0	3
	COS 118	Salon IV	0	21	0	7
	COS 223	Contemp Hair Coloring	1	3	0	2
	COS 225	Adv Contemp Hair Coloring	1	3	0	2
	Options: Select 7 credit hours from the following courses:					
	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
	COS 119	Esthetics Concepts I	2	0	0	2
	COS 121	Manicure/Nail Technology I	4	6	0	6
	COS 222	Manicure/Nail Technology II	4	6	0	6
	COS 224	Trichology and Chemistry	1	3	0	2
	COS 240	Contemporary Design	1	3	0	2
	COS 250	Computerized Salon Ops	1	0	0	1
	WBL 111	Work-Based Learning I	0	0	10	1
	WBL 115	Work-Based Learning Seminar I	1	0	0	1
IV.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 122	College Transfer Success	0	2	0	1

Total Required Hours **71**

****NOTE: Any Cosmetology Student who decides to leave with the 1200 hour apprenticeship criteria, receives their apprentice license, and satisfies the North Carolina Board of Cosmetic Arts with the appropriate documented hours to receive their cosmetology license may then have their last COS practical class added to their transcript through the WBL 111 and WBL 115 with the documented 1500 hour criteria.**

Cosmetology Diploma (D55140)

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**					
	ENG 101	Applied Communications I	3	0	0	3
	MAT 110	Math Measurement & Literacy	2	2	0	3
II.	**Required Core Courses - 34 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
	COS 117	Cosmetology Concepts IV	2	0	0	2
III.	**Other Major Required Courses - 7 Credit Hours**					
	COS 118	Salon IV	1	21	0	7
Total Required Hours						**47**

Cosmetology Certificate (C55140)

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**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
II.	**Other Major Required Courses - 2 Credit Hours**					
	Choose one of the following 2 credit hour courses:					
	COS 119	Esthetics Concepts I	2	0	0	2
	COS 223	Contemp Hair Coloring	1	3	0	2
	COS 224	Trichology and Chemistry	1	3	0	2
	COS 225	Adv Contemp Hair Coloring	1	3	0	2
	COS 240	Contemporary Design	1	3	0	2
Total Required Hours						**34**

Manicuring/Nail Technology Certificate (C55400)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate proficiency in nail care.
2. Demonstrate an understanding of sanitation/infection control.

		Class Hours	Lab Hours	Co-Op Hours	Credit Hours
COS 121	Manicure/Nail Technology I	4	6	0	6
COS 222	Manicure/Nail Technology II	4	6	0	6
Total Required Hours					**12**

Esthetics Technology Certificate (C55230)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate proficiency in professional imaging and makeup color analysis.
2. Demonstrate proficiency in skin care.
3. Demonstrate an understanding of sanitation/infection control.

		Class Hours	Lab Hours	Credit Hours
COS 119	Esthetics Concepts I	2	0	2
COS 120	Esthetics Salon I	0	18	6
COS 125	Esthetics Concepts II	2	0	2
COS 126	Esthetics Salon II	0	18	6
Total Required Hours				**16**

Cosmetology Instructor Certificate (C55160)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Identify theories of education and develop lesson plans for an active learning environment.
2. Deliver classroom instruction in an active learning environment.
3. Demonstrate supervisory techniques to effectively oversee students in a clinical setting.
4. Assess student performance in a classroom setting to meet the NC Board of Cosmetic Art standards.
5. Keep accurate records of student performances in a clinical setting.

		Class Hours	Lab Hours	Credit Hours
COS 271	Instructor Concepts I	5	0	5
COS 272	Instructor Practicum I	0	21	7
COS 273	Instructor Concepts II	5	0	5
COS 274	Instructor Practicum II	0	21	7
Total Required Hours				**24**

Manicuring Instructor Certificate (C55380)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Identify theories of education and develop lesson plans for an active learning environment.
2. Deliver classroom instruction in an active learning environment.
3. Demonstrate supervisory techniques to effectively oversee students in a clinical setting.
4. Assess student performance in a classroom setting to meet the NC Board of Cosmetic Art standards.
5. Keep accurate records of student performances in a clinical setting.

		Class Hours	Lab Hours	Credit Hours
COS 251	Manicure Instructor Concepts	8	0	8
COS 252	Manicure Instructor Practicum	0	15	5
Total Required Hours				**13**

Esthetics Instructor Certificate (C55270)

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.

Program Student Learning Outcomes
Graduates will be able to:
1. Identify theories of education and develop lesson plans for an active learning environment.
2. Deliver classroom instruction in an active learning environment.
3. Demonstrate supervisory techniques to effectively oversee students in a clinical setting.
4. Assess student performance in a classroom setting to meet the NC Board of Cosmetic Art standards.
5. Keep accurate records of student performances in a clinical setting.

		Class Hours	Lab Hours	Credit Hours
COS 253	Esthetics Instructor Concepts I	6	15	11
COS 254	Esthetics Instructor Concepts II	6	15	11
Total Required Hours				**22**

Criminal Justice Technology Degree (A55180)

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.

Program Student Learning Outcomes
Graduates will be able to:

1. For the 3 components of the American Criminal Justice System (law enforcement, courts and corrections), understand each of their histories, present day operations, and potential future outlooks.
2. Have a working knowledge of the laws, policies, and programs that direct/govern the American Criminal Justice System
3. Demonstrate and discuss basic criminal justice practices that are incorporated in the journey of a crime as it passes through the 3 components of the American Criminal Justice System
4. Describe the function and utilization of the various complimentary accessories to the American Criminal Justice System
5. Articulate how the American Criminal Justice System addresses various categories of crime
6. Be able to explain the extent of crime in the United States and provide numerous plausible reasons/theories of why crime occurs.

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 18 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
	PSY 150	General Psychology	3	0	3
	POL 120	American Government	3	0	3
		OR			
	SOC 210	Introduction to Sociology (3-0-3)			
		Humanities Elective	3	0	3
II.	**Required Core 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 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 225	Crisis Intervention***	3	0	3
	CJC 232	Civil Liability	3	0	3
	CJC 255	Issues in Criminal Justice App	3	0	3
	CJC	Elective (Choose one of the following)			3
		CJC 151 Intro to Loss Prevention (3-0-3)			
		CJC 222 Criminalistics (3-0-3)			
		CJC 223 Organized Crime (3-0-3)			
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**70**

Note:***Students who successfully complete the Basic Law Enforcement Training (BLET) course may be given credit for CJC 120, CJC 121, CJC 131, CJC 221, and CJC 225 in the Criminal Justice Curriculum.

Criminal Justice Technology Diploma (D55180)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 9 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	PSY 150	General Psychology	3	0	3
	SOC 210	Introduction to Sociology	3	0	3
		OR			
	POL 120	American Government (3-0-3)			
II.	**Required Core Courses - 18 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 231	Constitutional Law	3	0	3
III.	**Other Major Required Courses - 18 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	CJC 121	Law Enforcement Operations	3	0	3
	CJC 132	Court Procedure and Evidence	3	0	3
	CJC 141	Corrections	3	0	3
	CJC 232	Civil Liability	3	0	3
	CJC	Elective (Choose one of the following)			3
		CJC 151 Intro to Loss Prevention (3-0-3)			
		CJC 222 Criminalistics (3-0-3)			
		CJC 223 Organized Crime (3-0-3)			
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**46**

Criminal Justice Technology Certificate (C55180)

		Class Hours	Lab Hours	Credit Hours
CJC 112	Criminology	3	0	3
CJC 113	Juvenile Justice	3	0	3
CJC 131	Criminal Law	3	0	3
CJC 231	Constitutional Law	3	0	3
Total Required Hours				**12**

Early Childhood Education Degree (A55220)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:
1. Create environments that are healthy, respectful, supportive, and challenging to ALL children
2. Design and implement developmentally effective curriculum that addresses all domains of learning
3. Support and empower ALL children, families, and communities through trusting and respectful reciprocal relationships
4. Use authentic assessment responsibility to make informed decisions to guide ALL children's learning
5. Communicate effectively using standard written and verbal skills
6. Utilize technology to enhance learning for ALL children
7. Serve as a leader, advocate, and professional in the fields of early education

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	ENG 112	Writing/Research in the Disc	3	0	0	3
		OR				
	COM 231	Public Speaking	3	0	0	3
		Math/Natural Science Requirement (min. 3 credits)				
		Humanities Elective	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
		OR				
	SOC 210	Introduction to Sociology	3	0	0	3
II.	**Required Core Courses - 35 Credit Hours**					
	EDU 119	Intro to Early Child Education	4	0	0	4
	EDU 131	Child, Family, and Community	3	0	0	3
	EDU 144	Child Development I	3	0	0	3
	EDU 145	Child Development II	3	0	0	3
	EDU 146	Child Guidance	3	0	0	3
	EDU 151	Creative Activities	3	0	0	3
	EDU 153	Health, Safety and Nutrition	3	0	0	3
	EDU 221	Children with Exceptional	3	0	0	3
	EDU 234	Infants, Toddlers, and Twos	3	0	0	3
	EDU 280	Language & Literacy Experiences	3	0	0	3
	EDU 284	Early Child Capstone Prac	1	9	0	4
III.	**Other Major Required Courses - 15 Credit Hours**					
	CIS 110	Introduction to Computers	2	2	0	3
	EDU 184	Early Child Intro Pract	1	3	0	2
	EDU 214	Early Child Interm Pract	1	9	0	4
	EDU 252	Math and Science Activities	3	0	0	3
	EDU 259	Curriculum Planning	3	0	0	3
	Choose 5 Hours from the following list					
	ART 111	Art Appreciation	3	0	0	3
	EDU 185	Cognitive and Language Activity	3	0	0	3
	EDU 254	Music and Movement for Children	1	2	0	2
	EDU 261	Early Childhood Administration I	3	0	0	3
	EDU 262	Early Childhood Administration II	3	0	0	3

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
	EDU 154	Social/Emotional/Behav Dev	3	0	0	3
	EDU 223	Specific Learning Disab	3	0	0	3
	EDU 248	Developmental Delays	3	0	0	3
	EDU 271	Educational Technology	2	2	0	3
	ENG 231	American Literature 1	3	0	0	3
	ENG 232	American Literature II	3	0	0	3
	GEO 111	World Regional Geography	3	0	0	3
	HIS 111	World Civilizations I	3	0	0	3
	HIS 112	World Civilizations II	3	0	0	3
	HUM 122	Southern Culture	3	0	0	3
	HUM 211	Humanities I	3	0	0	3
	HUM 220	Human Value and Meaning	3	0	0	3
	POL 120	American Government	3	0	0	3
	SOC 210	Introduction to Sociology	3	0	0	3
	SOC 213	Sociology of the Family	3	0	0	3
	SOC 220	Social Problems	3	0	0	3
V.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 122	College Transfer Success	0	2	0	1
Total Required Hours						**71**

Early Childhood Education Diploma (D55220)

			Class Hours	Lab Hours	Co-Op Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**					
	ENG 111	Writing and Inquiry	3	0	0	3
	PSY 150	General Psychology	3	0	0	3
		OR				
	SOC 210	Introduction to Sociology	3	0	0	3
II.	**Required Core Courses - 22 Credit Hours**					
	EDU 119	Intro to Early Child Education	4	0	0	4
	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 153	Health, Safety and Nutrition	3	0	0	3
	EDU 221	Children with Exceptional	3	0	0	3
	EDU 234	Infants, Toddlers, & Twos	3	0	0	3
III.	**Required Subject Courses - 6 Credit Hours**					
	EDU 144	Child Development I	3	0	0	3
	EDU 145	Child Development II	3	0	0	3
IV.	**Other Major Required Courses - 8 Credit Hours**					
	CIS 110	Introduction to Computers	2	2	0	3
	EDU 184	Early Child Intro Pract	1	3	0	2
	EDU 259	Curriculum Planning	3	0	0	3
Total Required Hours						**42**

Early Childhood Education Certificate (C55220)

		Class Hours	Lab Hours	Credit Hours
EDU 119	Intro to Early Child Education	4	0	4
EDU 184	Early Child Intro Pract	1	3	2
EDU 259	Curriculum Planning	3	0	3
EDU 146	Child Guidance	3	0	3
EDU 151	Creative Activities	3	0	3
Total Required Hours				**15**

Infant/Toddler Care Certificate (C55290)

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

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

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

Program Student Learning Outcomes
Graduates will be able to:

1. Create environments that are healthy, respectful, supportive, and challenging to ALL children
2. Design and implement developmentally effective curriculum that addresses all domains of learning
3. Support and empower ALL children, families, and communities through trusting and respectful reciprocal relationships
4. Use authentic assessment responsibility to make informed decisions to guide ALL children's learning
5. Communicate effectively using standard written and verbal skills
6. Utilize technology to enhance learning for ALL children
7. Serve as a leader, advocate, and professional in the fields of early education

		Class Hours	Lab Hours	Credit Hours
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
Total Required Hours				**16**

School–Age Education Degree (A55440)

Curriculum Description

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers. Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations. Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after-school programs, paraprofessional positions in public/ private schools, recreational centers, and other programs that work with school-age populations.

Program Student Learning Outcomes

Graduates will be able to:

1. Create environments that are healthy, respectful, supportive, and challenging to ALL children
2. Design and implement developmentally effective curriculum that addresses all domains of learning
3. Support and empower ALL children, families, and communities through trusting and respectful reciprocal relationships
4. Use authentic assessment responsibility to make informed decisions to guide ALL children's learning
5. Communicate effectively using standard written and verbal skills
6. Utilize technology to enhance learning for ALL children
7. Serve as a leader, advocate, and professional in the fields of early education

				Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**					
	ENG 111	Writing and Inquiry		3	0	3
	ENG 112	Writing/Research in the Disc		3	0	3
		OR				
	COM 231	Public Speaking		3	0	3
	MAT 110	Math Measurement & Literacy		2	2	3
		OR				
	MAT 143	Quantitative Literacy (2-2-3)				
		Humanities Elective		3	0	3
		Social Science Elective		3	0	3
II.	**Required Core Courses - 15 Credit Hours**					
	EDU 131	Child, Family, and Community		3	0	3
	EDU 163	Classroom Mgt. and Instruction		3	0	3
	EDU 271	Educational Technology		2	2	3
	EDU 285	Internship Exp-School Age		1	9	4
	EDU 289	Adv. Issues/School Age		2	0	2
III.	**Required Subject Courses - 12 Credit Hours**					
	EDU 118	Princ. and Prac of Inst Asst		3	0	3
	EDU 144	Child Development I		3	0	3
	EDU 145	Child Development II		3	0	3
	EDU 221	Children with Exceptional		3	0	3
IV.	**Other Major Required Courses - 29 Credit Hours**					
	CIS 110	Introduction to Computers		2	2	3
	EDU 119	Intro to Early Child Education		4	0	4
	EDU 146	Child Guidance		3	0	3
	EDU 151	Creative Activities		3	0	3
	EDU 184	Early Child Intro Pract		1	3	2
	EDU 214	Early Child Interm Pract		1	9	4
	EDU 259	Curriculum Planning		3	0	3
	EDU 281	Instruc Strat/Read and Writ		2	2	3
	EDU 284	Early Child Capstone Prac		1	9	4
V.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills	0	2	0	1
		OR				
	ACA 122	College Transfer Success	0	2	0	1
Total Required Hours						**72**

Electrical Systems Technology Degree (A35130)

Curriculum Description
The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities.

Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications of the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical systems.

Program Student Learning Outcomes
Graduates will be able to:
1. Explain electrical safety procedures
2. Create AC general lighting circuits as defined by the National Electrical Code
3. Create simple DC circuits
4. Demonstrate the installation of electrical conduits properly
5. Connect simple and moderate motor control circuits
6. Effectively use the National Electrical Code

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 143	Quantitative Literacy (2-2-3)			
		OR			
	MAT 152	Statistical Methods I (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Core Courses - 16 Credit Hours**				
	ELC 112	DC/AC Electricity	3	6	5
	ELC 113	Residential Wiring	2	6	4
	ELC 117	Motors and Controls	2	6	4
	ELC 128	Introduction to PLC	2	3	3
III.	**Required Subject Areas Courses - 12 Credit Hours**				
	ELC 114	Commercial Wiring	2	6	4
	ELC 115	Industrial Wiring	2	6	4
	ELC 118	National Electrical Code	1	2	2
	ELC 119	NEC Calculations	1	2	2
IV.	**Other Major Required Courses - 23/25 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	ELC 135	Electrical Machines I	2	2	3
	ELC 228	PLC Applications	2	6	4
	ELC 229	Applications Project	1	3	2
		OR			
	EUS 110	Intro to Elect Util Ind (3-3-4)			
	ELN 133	Digital Electronics	3	3	4
	ELN 229	Industrial Electronics	3	3	4
	ELN 231	Industrial Controls	2	3	3
		Technical Elective: (select 2 hours from the following)			2
		AHR 120 HVACR Maintenance (1-3-2)			
		AHR 160 Refrigerant Certification (1-0-1)			
		ALT 120 Renewable Energy Tech. (2-2-3)			
		DFT 111 Technical Drafting I (1-3-2)			
		DFT 111A Technical Drafting I Lab (0-3-1)			
		DFT 151 CAD I (2-3-3)			
		ELC 127 Software for Technicians (1-3-2)			
		ELC 132 Electrical Drawings (1-3-2)			
		ELC 139 AC Circuit Analysis (3-3-4)			

				Class Hours	Lab Hours	Credit Hours
	ELC 220	Photovoltaic Sys Tech	(2-3-3)			
	ELC 221	Advanced PV Sys Design	(2-3-3)			
	HYD 110	Hydraulics/Pneumatics I	(2-3-3)			
	MNT 222	Industrial Sys Schematics	(1-2-2)			
	SST 110	Intro to Sustainability	(3-0-3)			
	SST 120	Energy Use Analysis	(2-2-3)			
V.	**Other Required Hours - 1 Credit Hour**					
	ACA 115	Success & Study Skills		0	2	1
		OR				
	ACA 122	College Transfer Success		0	2	1
Total Required Hours						**69/73**

Electrical Systems Technology Diploma (D35130)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	MAT 110	Math Measurement & Literacy	2	2	3
II.	**Required Core Courses - 25 Credit Hours**				
	ELC 112	DC/AC Electricity	3	6	5
	ELC 113	Basic Wiring I	2	6	4
	ELC 114	Commercial Wiring	2	6	4
	ELC 115	Industrial Wiring	2	6	4
	ELC 117	Motors and Controls	2	6	4
	ELC 118	National Electrical Code	1	2	2
	ELC 119	NEC Calculations	1	2	2
III.	**Other Major Required Courses - 9 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	ELC 135	Electrical Machines I	2	2	3
	ELN 231	Industrial Controls	2	3	3
Total Required Hours					**40**

Electrical Systems Technology Certificates

			Class Hours	Lab Hours	Credit Hours
Electric Utility Certificate – 14/15 Credit Hours (C3513003)					
	ELC 112	DC/AC Electricity	3	6	5
		OR			
	ELC 139	AC Circuit Analysis (3-3-4)			
	ELC 132	Electrical Drawings	1	3	2
	ELN 133	Digital Electronics	3	3	4
	EUS 110	Intro to Elect Util Ind	3	3	4
Electrical Wiring Certificate – 17 Credit Hours (C3513001)					
	ELC 112	DC/AC Electricity	3	6	5
	ELC 113	Residential Wiring	2	6	4
	ELC 114	Commercial Wiring	2	6	4
	ELC 115	Industrial Wiring	2	6	4
Industrial Controls Certificate – 15 Credit Hours (C3513002)					
	ELC 112	DC/AC Electricity	3	6	5
	ELC 117	Motors and Controls	2	6	4
	ELC 128	Introduction to PLC	2	3	3
	ELN 231	Industrial Controls	2	3	3

Electronics Engineering Technology Degree (A40200)

Curriculum Description

The Electronics Engineering Technology curriculum prepares students to apply basic engineering principles and technical skills 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. Includes instruction in mathematics, basic electricity, solid-state fundamentals, digital concepts, and microprocessors or programmable logic controllers. Graduates should qualify for employment as electronics engineering technician, field service technician, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Program Student Learning Outcomes

Graduates will be able to:

1. Understand and mathematically demonstrate basic engineering-related laws and theories (e.g. Ohm's Law, Kirchhoff's Laws)
2. Demonstrate competency with field test instruments (e.g. Digital Multimeter, Oscilloscope)
3. Demonstrate competency with semiconductor applications (e.g.. Transistor theory, sensors, I.C.'s)
4. Understand and demonstrate basic digital logic design and troubleshooting (e.g.. Gate logic, digital devices)
5. Demonstrate competency with automation technology (e.g.. PLC programming, Microcontrollers)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Dis	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 121	Algebra/Trigonometry I	2	2	3
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Technical Core Courses - 16 Credit Hour**				
	ELC 138	DC Circuit Analysis	3	3	4
	ELC 139	AC Circuit Analysis	3	3	4
	ELN 131	Analog Electronics I	3	3	4
	ELN 133	Digital Electronics	3	3	4
III.	**Program Major Required Courses - 13 Credit Hours**				
	ELC 127	Software for Technicians	1	3	2
	ELC 128	Intro to PLC	2	3	3
	ELC 132	Electrical Drawings	1	3	2
	ELN 152	Fabrication Techniques	1	3	2
		OR			
	ELC 229	Application Project (1-3-2)			
	ELN 232	Introduction to Microprocessors	3	3	4
IV.	**Other Major Required Courses - 29/30 Credit Hours**				
	Programming				
	Choose one of the following courses:				
	CET 161	Procedural Programming	2	3	3
	CSC 134	C++ Programming (2-3-3)			
	CSC 139	Visual BASIC Programming (2-3-3)			
	Mathematics				
	Choose one of the following courses:				
	MAT 122	Algebra/Trigonometry II	2	2	3
	MAT 152	Statistical Methods I (3-2-4)			
	MAT 172	Precalculus Trigonometry (3-2-4)			
	MAT 271	Calculus I (3-2-4)			

			Class Hours	Lab Hours	Credit Hours
Physics I					
Choose one of the following courses:					
PHY 131	Physics-Mechanics		3	2	4
PHY 151	College Physics I	(3-2-4)			
Physics II					
Choose one of the following courses:					
PHY 132	Physics-Elect & Magnetism		3	2	4
PHY 152	College Physics II	(3-2-4)			
Choose one of the following Tracks					
Track A (Electronics and Automation) – 15 Credit Hours					
Introductory Skills					
Take all of the following courses:					
CIS 110	Intro to Computers		2	2	3
EGR 110	Intro to Engineering Tech		1	2	2
PC Support					
Choose one of the following courses:					
CET 111	Computer Upgrade/Repair I		2	3	3
CTS 120	Hardware/Software Support	(2-3-3)			
Robotics					
Choose one of the following courses:					
ATR 211	Robot Programming		2	3	3
ATR 215	Sensors and Transducers	(2-3-3)			
ATR 218	Work Cell Integration	(2-3-3)			
Automated Controls					
ELC 228	PLC Applications		2	6	4
Track B (Electric Utility) – 15 Credit Hours					
Take all of the following courses:					
EUS 110	Intro to Elect Util Ind		3	3	4
EUS 130	Elect Util Print Reading		3	2	4
ELC 231	Electric Power Systems		3	2	4
ELC 233	Energy Management		2	2	3
V. Other Required Hours – 1 Credit Hour					
Choose one of the following courses:					
ACA 115	Success & Study Skills		0	2	1
	OR				
ACA 122	College Transfer Success	(0-2-1)			
Total Required Hours					74 – 76

Electronics Engineering Technology Diploma (D40200)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements – 9/10 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Social Science Elective	3	0	3
II.	**Technical Core Courses – 16 Credit Hours**				
	ELC 138	DC Circuit Analysis	3	3	4
	ELC 139	AC Circuit Analysis	3	3	4
	ELN 131	Analog Electronics I	3	3	4
	ELN 133	Digital Electronics	3	3	4
III.	**Program Major Required Courses – 7 Credit Hours**				
	ELC 128	Intro to PLC	2	3	3
	ELN 232	Introduction to Microprocessors	3	3	4
	Choose one of the following tracks:				
	Track A (Electronics and Automation) – 5 Credit Hours				
	EGR 110	Intro to Engineering Tech	1	2	2
	PC Support				
	Choose one of the following courses:				
	CET 111	Computer Upgrade/Repair I	2	3	3
	CTS 120	Hardware/Software Support (2-3-3)			
	Track B (Electric Utility) – 8 Credit Hours				
	EUS 110	Intro to Elect Util Ind	3	3	4
	EUS 130	Elect Util Print Reading	3	2	4
IV.	**Other Required Course – 1 Credit Hour**				
	Choose one of the following courses:				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success (0-2-1)			
Total Required Hours					**38 – 42**

Electronics Engineering Technology Certificate (C40200)

		Class Hours	Lab Hours	Credit Hours
Choose a minimum of 12 Credit Hours from the following courses.				
ATR 211	Robot Programming	2	3	3
CET 111	Computer Upgrade and Repair I	2	3	3
CET 161	Procedural Programming	2	3	3
EGR 110	Intro to Engineering Tech	1	2	2
ELC 127	Software for Technicians	1	3	2
ELC 128	Intro to Programmable Logic Controllers	2	3	3
ELC 138	DC Circuit Analysis	3	3	4
ELC 139	AC Circuit Analysis	3	3	4
ELC 228	Programmable Logic Controller Applications	2	6	4
ELC 229	Applications Project	1	3	2
ELN 131	Analog Electronics I	3	3	4
ELN 133	Digital Electronics	3	3	4
ELN 152	Fabrication Techniques	1	3	2
ELN 232	Introduction to Microprocessors	3	3	4
EUS 110	Intro to Elect Util Ind	3	3	4
EUS 130	Elect Util Print Reading	3	2	4
Total Required Hours				**12**

Entrepreneurship Degree (A25490)

Curriculum Description
The Entrepreneurship curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth as self-employed business owners. Course work includes developing a student's ability to make informed decisions as future business owners. Courses include entrepreneurial concepts learned in innovation and creativity, business funding, and marketing. Additional course work includes computers and economics. Through these skills, students will have a sound education base in entrepreneurship for lifelong learning. Graduates are prepared to be self-employed and open their own businesses.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate the capacity to identify and acquire the financial resources needed for the creation and implementation of a new venture
2. Show an understanding of the creativity and innovation involved in the entrepreneurial process as it relates to new business startup
3. Define the ethical and legal framework in which business decisions are made
4. Develop advertising strategies with the goal of maximizing the firm's profits
5. Construct a business plan and essential financial documents for a small business
6. Demonstrate a knowledge of business operations, the business organization, and business procedures

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Writing & Inquiry	3	0	3
		Humanities elective	3	0	3
	COM 231	Public Speaking	3	0	3
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
	ECO 252	Principles of Macroeconomics	3	0	3
II.	**Required Core Courses - 28 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 110	Introduction to Business	3	0	3
	ETR 220	Innovation and Creativity	3	0	3
	ETR 230	Entrepreneur Marketing	3	0	3
	ETR 240	Funding for Entrepreneurs	3	0	3
	BUS 139	Entrepreneurship I	3	0	3
	BUS 245	Entrepreneurship II	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	ECO 251	Prin of Microeconomics	3	0	3
III.	**Other Major Required Courses – 22 Credit Hours**				
	ACC 121	Prin of Managerial Acct	3	2	4
	BUS 115	Business Law I	3	0	3
	BUS 137	Principles of Management	3	0	3
	BUS 260	Business Communication	3	0	3
	CTS 130	Spreadsheet	2	2	3
	WEB 140	Web Development Tools	2	2	3
		Elective (choose 3 credit hours)			
		ACC 129 Individual Income Taxes			
		ACC 180 Practices in Bookkeeping			
		BUS 153 Human Resource Management			
		BUS 253 Leadership and Mgt. Skills.			
		BUS 230 Small Business Management			
		BUS 255 Organizational Behavior in Bus			
		MKT 120 Principles of Marketing			
		MKT 123 Fundamentals of Selling			
		MKT 220 Advertising & Sales Promotion			
		CTS 115 Information Systems Business Concepts			
		CTS 125 Presentation Graphics			
IV.	**Other Required Hours - 2 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success (0-2-1)			
	WBL 110	World of Work	1	0	1
Total Required Hours					**67/68**

Entrepreneurship Certificate (C25490)

		Class Hours	Lab Hours	Credit Hours
BUS 110	Introduction to Business	3	0	3
BUS 139	Entrepreneurship I	3	0	3
ETR 230	Entrepreneur Marketing	3	0	3
ETR 220	Innovation and Creativity	3	0	3
Total Required Hours				**12**

Industrial Systems Technology Degree (A50240)

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 print 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.

Program Student Learning Outcomes
Graduates will be able to:
1. Understand and mathematically demonstrate basic engineering-related laws and theories (e.g. Pascal's Law, Equilibrium).
2. Demonstrate competency with test instruments (e.g. CMM, Calipers and Micrometers).
3. Understand and can demonstrate basic maintenance practices.
4. Demonstrate knowledge of workplace safety and ethics.
5. Demonstrate an understanding of the disciplines specific and critical for the safe and reasonable practice of welding.

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Technical Core Courses - 21 Credit Hours**				
	BPR 111	Print Reading	1	2	2
	ELC 112	DC/AC Electricity	3	6	5
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	ISC 121	Environmental Health & Safety	3	0	3
	MAC 141	Machine Applications I	2	6	4
	MNT 110	Intro to Maintenance Procedures	1	3	2
	WLD 112	Basic Welding Processes	1	3	2
III.	**Required Subject Area Courses - 12 Credit Hours**				
	ELC 128	Intro to PLC	2	3	3
	MAC 142	Machine Applications II	2	6	4
	MNT 222	Industrial Sys Schematics	1	2	2
		Technical Elective			
		(Choose a minimum of 3 credit hours from the following)			3
		BPR 130 Print Reading: Construction (3-0-3)			
		ELC 111 Intro to Electricity (2-2-3)			
		ELC 113 Residential Wiring (2-6-4)			
		ELC 114 Commercial Wiring (2-6-4)			

			Class Hours	Lab Hours	Credit Hours
	ELC 117	Motors and Controls (2-6-4)			
	ELC 135	Electrical Machines (2-2-3)			
	ELC 138	DC Circuit Analysis (3-3-4)			
	ELC 139	AC Circuit Analysis (3-3-4)			
	ELC 220	Photovoltaic Sys Tech (2-3-3)			
	ISC 132	Manufacturer Quality Control (2-3-3)			
	MAC 233	Appl in CNC Machining (2-12-6)			
	MEC 161	Manufacturing Processes I (3-0-3)			
	MEC 180	Engineering Materials (2-3-3)			
	MEC 231	Computer-Aided Manufacturing (1-4-3)			
	WLD 115	SMAW (Stick) Plate (2-9-5)			
	WLD 121	GMAW (Mig) FCAW/Plate (2-6-4)			
IV.	**Other Major Required Courses - Choose 25 Credit Hours**				
	AHR 120	HVACR Maintenance	1	3	2
	AHR 130	HVAC Controls	2	2	3
	AHR 160	Refrigerant Certification	1	0	1
	ATR 211	Robot Programming	2	3	3
	CIS 110	Introduction to Computers	2	2	3
	CMT 120	Codes and Inspections	3	0	3
	CMT 210	Construction Management Fund.	3	0	3
	CMT 212	Total Safety Performance	3	0	3
	ELC 115	Industrial Wiring	2	6	4
	MAC 141A	Machining Applications I Lab	0	6	2
	MAC 142A	Machining Applications II Lab	0	6	2
	PFT 111	Piping & Valves	3	3	4
	PLU 111	Introduction to Basic Plumbing	1	3	2
	PLU 211	Commercial/Ind Plumbing	2	2	3
	SST 110	Intro to Sustainability	3	0	3
	SST 120	Energy Use Analysis	2	2	3
	SST 140	Green Building & Design Concepts	3	0	3
	WLD 117	Industrial SMAW	1	4	3
	WOL 110	Basic Construction Skills	2	3	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**74**

Industrial Systems Technology Certificates

			Class Hours	Lab Hours	Credit Hours
Industrial Systems Technology – 18 Credit Hours (C5024001)					
	AHR120	HVACR Maintenance	1	3	2
	BPR 111	Print Reading	1	2	2
	ELC 115	Industrial Wiring	2	6	4
	ELC 128	Intro to PLC	2	3	3
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	PLU 111	Introduction to Basic Plumbing	1	3	2
	WLD 112	Basic Welding Processes	1	3	2
Industrial Systems – Pipefitting Technology – 12 Credit Hours (C5024002)					
	PFT 111	Piping and Valves	3	3	4
	WLD 112	Basic Welding Processes	1	3	2
	WLD 117	Industrial SMAW	1	4	3
	WOL 110	Basic Construction Skills	2	3	3

Information Technology Degrees

Curriculum Description
The Information Technology (IT) curriculum prepares graduates for employment in the technology sector as designers, testers, support technicians, system administrators, developers, or programmers who use computer software and\or hardware to design, process, implement and manage information systems in specialties such as database services, security, business intelligence, healthcare informatics and others depending on the technical path selected within this curriculum.

Course work includes development of a student's ability to create, store, communicate, exchange and use information to solve technical issues related to information support and services, interactive media, network systems, programming and software development, information security and other emerging technologies based on the selected area of study.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to design and manage information. The program will incorporate the competencies of industry-recognized certification exams.

Program Student Learning Outcomes
Graduates will be able to:
1. Demonstrate an understanding of programming concepts and techniques.
2. Demonstrate an understanding of the role selected programming languages have related to other industry tools and technologies.
3. Develop programs using selected programming languages.
4. Demonstrate an advanced understanding of selected programming languages syntax and structure.
5. Utilize industry related programming tools and techniques to develop highly sophisticated programs.

Information Technology Degree (A25590C)
Computer Programming and Development

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Expository Writing	3	0	3
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
	MAT 152	Statistical Methods I	3	2	4
	ECO 252	Principles of Macroeconomics	3	0	3
		OR			
	ECO 251	Principles of Microeconomics	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 12 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	CTI 110	Web, PGM, & DB Foundation	3	0	3
	CTI 120	Network & Sec Foundation	3	2	3
	CTS 115	Info Sys Business Concepts	3	0	3
III.	**Other Major Required Hours - (Take Groups 1 and 2)**				
	Group 1 Take - 27 Credit Hours				
	CIS 115	Intro to Programming and Logic	2	2	3
	CSC 134	C++ Programming	2	3	3
	CSC 139	Visual BASIC Programming	2	3	3
	CSC 234	Advanced C++ Programming	2	3	3
	CSC 239	Advanced Visual BASIC Programming	2	3	3
	CTI 140	Virtualization Concepts	1	4	3
	CTS 240	Project Management	2	2	3
	NET 125	Introduction to Networks	1	4	3
	WEB 182	PHP Programming	2	2	3
	Group 2 Choose 12 Credits Below				
	CTS 130	Spreadsheet	2	2	3
	DBA 110	Database Concepts	2	2	3
	NET 126	Routing Basics	1	4	3
	NET 225	Routing and Switching I	1	4	3

			Class Hours	Lab Hours	Credit Hours
	NET 226	Routing and Switching II	1	4	3
	NOS 120	Linux/UNIX/Single User	2	2	3
	NOS 130	Windows Single User	2	2	3
	NOS 220	Linux/UNIX Administration I	2	2	3
	WEB 115	Web Markup and Scripting	2	2	3
	WEB 140	Web Development Tools	2	2	3
	WEB 210	Web Design	2	2	3
	WEB 250	Database Driven Websites	2	2	3
IV.	**Other Required Hour - 1 Credit Hour**				
	ACA 122	College Transfer Success	0	2	1
		OR			
	ACA 115	Success & Study Skills			
	WBL 110	World of Work	1	0	1
Total Required Hours					**68**

Computer Programming and Development Certificate (C25590C)

		Class Hours	Lab Hours	Credit Hours
CIS 115	Intro to Programming and Logic	2	2	3
WEB 115	Web Markup and Scripting	2	2	3
CSC 139	Visual BASIC Programming	2	3	3
CSC 134	C++ Programming	2	3	3
Total Required Hours				**12**

Information Technology Degree (A25590I)
IT Business Support

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Expository Writing	3	0	3
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
	MAT 152	Statistical Methods I	3	2	4
	ECO 252	Principles of Macroeconomics	3	0	3
		OR			
	ECO 251	Principles of Microeconomics	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 12 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	CTI 110	Web, PGM, & DB Foundation	3	0	3
	CTI 120	Network & Sec Foundation	3	2	3
	CTS 115	Info Sys Business Concepts	3	0	3
III.	**Other Major Required Hours - (Take Groups 1 and 2)**				
	Group 1 Take - 27 Credit Hours				
	BUS 110	Introduction to Business	3	0	3
	BUS 115	Business Law I	3	0	3
	BUS 137	Principles of Management	3	0	3
	CIS 115	Intro to Programming and Logic	2	2	3
	CTS 130	Spreadsheet	2	2	3
	CTS 240	Project Management	2	2	3
	DBA 110	Database Concepts	2	2	3
	WEB 115	Web Markup and Scripting	2	2	3
	WEB 285	Emerging Web Technologies	2	2	3
	Group 2 Choose 12 Credits Below				
	CSC 134	C++ Programming	2	3	3
	CSC 139	Visual BASIC Programming	2	3	3
	CSC 234	Advanced C++ Programming	2	3	3
	CSC 239	Advanced Visual BASIC Programming	2	3	3
	CTS 120	Hardware/Software Support	2	3	3
	NET 125	Introduction to Networks	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
	NOS 120	Linux/UNIX/Single User	2	2	3
	NOS 130	Windows Single User	2	2	3
	NOS 220	Linux/UNIX Administration I	2	2	3
	WEB 182	PHP Programming	2	2	3
	WEB 250	Database Driven Websites	2	2	3
IV.	**Other Required Hour - 1 Credit Hour**				
	ACA 122	College Transfer Success	0	2	1
		OR			
	ACA 115	Success & Study Skills			
	WBL 110	World of Work	1	0	1
Total Required Hours					**68**

Information Technology Degree (A25590N)
Networking Management

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Expository Writing	3	0	3
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
	MAT 152	Statistical Methods I	3	2	4
	ECO 252	Principles of Macroeconomics	3	0	3
		OR			
	ECO 251	Principles of Microeconomics	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 12 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	CTI 110	Web, PGM, & DB Foundation	3	0	3
	CTI 120	Network & Sec Foundation	3	2	3
	CTS 115	Info Sys Business Concepts	3	0	3
III.	**Other Major Required Hours - (Take Groups 1 and 2)**				
	Group 1 Take - 27 Credit Hours				
	CIS 115	Intro to Programming and Logic	2	2	3
	CTI 140	Virtualization Concepts	1	4	3
	NET 125	Introduction to Networks	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
	NOS 120	Linux/UNIX/Single User	2	2	3
	NOS 130	Windows Single User	2	2	3
	NOS 220	Linux/UNIX Administration I	2	2	3
	Group 2 Choose 12 Credits Below				
	CSC 139	Visual BASIC Programming	2	3	3
	CSC 239	Advanced Visual BASIC Programming	2	3	3
	CTS 120	Hardware/Software Support	2	3	3
	CTS 130	Spreadsheet	2	2	3
	CTS 240	Project Management	2	2	3
	DBA 110	Database Concepts	2	2	3
	WEB 115	Web Markup and Scripting	2	2	3
	WEB 182	PHP Programming	2	2	3
	WEB 250	Database Driven Websites	2	2	3
	WEB 285	Emerging Web Technologies	2	2	3
IV.	**Other Required Hour - 1 Credit Hour**				
	ACA 122	College Transfer Success	0	2	1
		OR			
	ACA 115	Success & Study Skills			
	WBL 110	World of Work	1	0	1
Total Required Hours					**68**

Information Technology Networking Certificate (C25590N)

		Class Hours	Lab Hours	Credit Hours
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
Total Required Hours				**12**

Information Technology Degree (A25590W)
Web Administration and Design

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Expository Writing	3	0	3
	COM 231	Public Speaking	3	0	3
		OR			
	ENG 112	Writing/Research in Discipline			
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
	MAT 152	Statistical Methods I	3	2	4
	ECO 252	Principles of Macroeconomics	3	0	3
		OR			
	ECO 251	Principles of Microeconomics	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 12 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	CTI 110	Web, PGM, & DB Foundation	3	0	3
	CTI 120	Network & Sec Foundation	3	2	3
	CTS 115	Info Sys Business Concepts	3	0	3
III.	**Other Major Required Hours - (Take Groups 1 and 2)**				
	Group 1 Take - 27 Credit Hours				
	CIS 115	Intro to Programming and Logic	2	2	3
	CSC 139	Visual BASIC Programming	2	3	3
	NET 125	Introduction to Networks	1	4	3
	NOS 120	Linux/UNIX/Single User	2	2	3
	WEB 115	Web Markup and Scripting	2	2	3
	WEB 182	PHP Programming	2	2	3
	WEB 210	Web Design	2	2	3
	WEB 250	Database Driven Websites	2	2	3
	Group 2 Choose 12 Credits Below				
	CSC 134	C++ Programming	2	3	3
	CSC 234	Advanced C++ Programming	2	3	3
	CSC 239	Advanced Visual BASIC Programming	2	3	3
	CTS 130	Spreadsheet	2	2	3
	CTS 240	Project Management	2	2	3
	DBA 110	Database Concepts	2	2	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
	NOS 130	Windows Single User	2	2	3
	NOS 220	Linux/UNIX Administration I	2	2	3
IV.	**Other Required Hour - 1 Credit Hour**				
	ACA 122	College Transfer Success	0	2	1
		OR			
	ACA 115	Success & Study Skills			
	WBL 110	World of Work	1	0	1
Total Required Hours					**68**

Web Administration and Design Certificate (C25590W)

		Class Hours	Lab Hours	Credit Hours
CIS 115	Intro to Programming and Logic	2	2	3
WEB 115	Web Markup and Scripting	2	2	3
WEB 210	Web Design	2	2	3
WEB 140	Web Development Tools	2	2	3
Total Required Hours				**12**

Manufacturing Technology Degree (A50320)

Curriculum Description
The Manufacturing Technology curriculum prepares students to use basic engineering principles and technical skills to identify and resolve production problems in the manufacture of products. Includes instruction in machine operations and CNC principles, production line operations, instrumentation, computer-aided manufacturing (CAM) and other computerized production techniques, manufacturing planning, quality control, quality assurance and informational infrastructure. Graduates should qualify for employment as a manufacturing technician, quality assurance technician, CAD/CAM technician, team leader, or research and development technician.

Program Student Learning Outcomes
Graduates will be able to:

1. Demonstrate competency with test instruments (e.g.. CMM, Calipers and Micrometers)
2. Demonstrate competency with manufacturing techniques and processes (e.g.. Material processing, process flow)
3. Understand and demonstrate basic design concepts (e.g. CNC programming, machine design)
4. Demonstrate knowledge of workplace safety and ethics

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Technical Core Courses - 8 Credit Hours**				
	DFT 111	Technical Drafting I	1	3	2
	ISC 121	Environmental Health and Safety	3	0	3
	ISC 132	Manufacturing Quality Control	2	3	3
III.	**Program Major Required Courses - 13 Credit Hours**				
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	MAC 114	Intro to Metrology	2	0	2
	MAC 121	Introduction to CNC	2	0	2
	MEC 161	Manufacturing Processes I	3	0	3
	MEC 180	Engineering Materials	2	3	3
IV.	**Other Major Required Courses – Choose 8 Credit Hours**				
	BPR 121	Blueprint Reading: Mechanical	1	2	2
	CIS 110	Introduction to Computers	2	2	3
	DFT 111A	Technical Drafting I Lab	0	3	1
	DFT 121	Intro to GD&T	1	2	2
	DFT 152	CAD II	2	3	3
	DFT 154	Intro to Solid Modeling	2	3	3
	DFT 231	Jig and Fixture	1	2	2
	EGR 110	Intro to Engineering Tech	1	2	2
	MAC 151	Machining Calculations	1	2	2
	SST 110	Intro to Sustainability	3	0	3
	SST 120	Energy Use Analysis	2	2	3
	Choose one of the following Tracks				
	Track A (Manufacturing Technology) – 30 Credit Hours				
	DFT 112	Technical Drafting II	1	3	2
	DFT 112A	Technical Drafting II Lab	0	3	1
	DFT 151	CAD I	2	3	3
	ELC 112	DC/AC Electricity	3	6	5
	ELC 128	Introduction to PLC	2	3	3
	MAC 141	Machine Applications I	2	6	4
	MAC 141A	Machining Applications I Lab	0	6	2
	MEC 181	Introduction to CIM	2	0	2
	MEC 231	Computer Aided Manufacturing I	1	4	3
	MEC 232	Computer Aided Manufacturing II	1	4	3
	WLD 112	Basic Welding Processes	1	3	2

			Class Hours	Lab Hours	Credit Hours
	Track B (Manufacturing Technology – Machining) – 28 Credit Hours				
	BPR 111	Print Reading	1	2	2
	MAC 122	CNC Turning	1	3	2
	MAC 124	CNC Milling	1	3	2
	MAC 141	Machine Applications I	2	6	4
	MAC 141A	Machining Applications I Lab	0	6	2
	MAC 142	Machine Applications II	2	6	4
	MAC 142A	Machining Applications II Lab	0	6	2
	MAC 222	Advanced CNC Turning	1	3	2
	MAC 224	Advanced CNC Milling	1	3	2
	MAC 233	Applications in CNC Machining	2	12	6
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**73/75**

Manufacturing Technology Certificates

		Class Hours	Lab Hours	Credit Hours
CNC Programming – 15 Credit Hours (C5032001)				
DFT 151	CAD I	2	3	3
MAC 121	Introduction to CNC	2	0	2
MAC 122	CNC Turning	1	3	2
MAC 124	CNC Milling	1	3	2
MEC 231	Comp-Aided Manufacturing I	1	4	3
MEC 232	Comp-Aided Manufacturing II	1	4	3
Manufacturing – 16 Credit Hours (C5032002)				
DFT 111	Technical Drafting I	1	3	2
DFT 111A	Technical Drafting I Lab	0	3	1
ISC 121	Environmental Health and Safety	3	0	3
MAC 114	Intro to Metrology	2	0	2
MAC 121	Introduction to CNC	2	0	2
MEC 161	Manufacturing Processes I	3	0	3
MEC 180	Engineering Materials	2	3	3

Mechanical Drafting Technology Degree (A50340)

Curriculum Description

The Mechanical Drafting Technology curriculum prepares students to apply technical skills and advanced computer software and hardware to create working drawings, graphic representations and computer simulations for mechanical and industrial designs. Includes instruction in engineering graphics, specification interpretation, geometric dimensioning and tolerancing, drafting calculations, two dimensional and three dimensional engineering design, solids modeling, engineering animation, computer-aided drafting (CAD), computer-aided design (CADD) and manufacturing materials and processes. Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

Program Student Learning Outcomes

Graduates will be able to:

1. Utilize standard drafting instruments and equipment, including software, printers, and plotters
2. Understand and perform basic drawing principles including sketching, lettering dimensioning, geometric construction, and orthographic projections
3. Produce advanced level of drawings including section views, auxiliary views, and assembly drawings for the manufacturing and assembling of parts
4. Produce detailed working drawings and adhering to standards and guidelines based on physical design parameters
5. Interpret and apply basic geometric dimensioning and tolerance principles to drawings and prints.
6. Create residential/commercial building plans from given data using a CAD system and utilize technology to present designs with written and visual documents
7. Apply the general steps of the design process to generate a logical plan of action for the design of a new or improved innovative product and produce a technical report communicating the purpose of both the product and design process
8. Design a product for manufacturability and mock-up construction

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Technical Core Courses - 12 Credit Hours**				
	DFT 151	CAD I	2	3	3
	DFT 152	CAD II	2	3	3
	DFT 153	CAD III	2	3	3
	DFT 154	Intro Solid Modeling	2	3	3
III.	**Required Program Major Courses - 12 Credit Hours**				
	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
	MEC 161	Manufacturing Processes I	3	0	3
	MEC 180	Engineering Materials	2	3	3
IV.	**Other Major Required Courses - 13 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	DDF 211	Design Process I	1	6	4
	DDF 221	Design Drafting Project	0	4	2
	MNT 222	Industrial Sys Schematics	1	2	2
		Technical Elective – Choose 2 Credit Hours			2
		DFT 231 Jig & Fixture Design (1-2-2)			
		EGR 110 Intro. to Engineering Technology (1-2-2)			
		MNT 110 Intro to Maintenance Procedures (1-3-2)			

			Class Hours	Lab Hours	Credit Hours
	Choose one of the following Tracks				
	Track A (Architectural) - 19 Credit Hours				
	ARC 111	Intro to Arch Technology	1	6	3
	ARC 114	Architectural CAD	1	3	2
	CST 111	Construction I	3	3	4
	CST 112	Construction II	3	3	4
	SST 110	Intro to Sustainability	3	0	3
	SST 140	Green Building & Design Concepts	3	0	3
	Track B (Mechanical) - 19 Credit Hours				
	DFT 121	Intro to Geometric Dimensioning and Tolerancing	1	2	2
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	ISC 132	Mfg. Quality Control	2	3	3
	MAC 121	Introduction to CNC	2	0	2
	MAC 141	Machine Applications I	2	6	4
	MAC 141A	Machining Applications I Lab	0	6	2
	MEC 231	Computer Aided Manufacturing I	1	4	3
V.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**72**

Mechanical Drafting Technology Diploma (D50340)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	MAT 110	Math Measurements & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
II.	**Required Core Courses - 12 Credit Hours**				
	DFT 151	CAD I	2	3	3
	DFT 152	CAD II	2	3	3
	DFT 153	CAD III	2	3	3
	DFT 154	Intro Solid Modeling	2	3	3
III.	**Required Subject Courses - 9 Credit Hours**				
	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
	MEC 180	Engineering Materials	2	3	3
IV.	**Other Major Required Courses - 10 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	MEC 161	Manufacturing Processes I	3	0	3
	MNT 222	Industrial Sys Schematics	1	2	2
		Technical Elective – Choose 2 Credit Hours			2
		DFT 231 Jig & Fixture Design (1-2-2)			
		EGR 110 Intro. to Engineering Technology (1-2-2)			
		MNT 110 Intro to Maintenance Procedures (1-3-2)			
	Choose one of the following Tracks				
	Track A (Architectural) – 5 Credit Hours				
	ARC 111	Introduction to Architectural Technology	1	6	3
	ARC 114	Architectural CAD	1	3	2
	Track B (Mechanical) – 5 Credit Hours				
	MAC 121	Introduction to CNC	2	0	2
	MEC 231	Computer Aided Manufacturing I	1	4	3
Total Required Hours					**42**

Mechanical Drafting Technology Certificate (C50340)

		Class Hours	Lab Hours	Credit Hours**rs**
DFT 111	Technical Drafting I	1	3	2
DFT 111A	Technical Drafting I Lab	0	3	1
DFT 112	Technical Drafting II	1	3	2
DFT 112A	Technical Drafting II Lab	0	3	1
DFT 151	CAD I	2	3	3
DFT 152	CAD II	2	3	3
Total Required Hours				**12**

Mechanical Engineering Technology Degree (A40320)

Curriculum Description

The Mechanical Engineering Technology curriculum prepares students to use basic engineering principles and technical skills to design, develop, test, and troubleshoot projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, 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.

Program Student Learning Outcomes

Graduates will be able to:

1. Understand and mathematically demonstrate basic engineering-related laws and theories (e.g.. Pascal's Law, Equilibrium)
2. Demonstrate competency with test instruments (e.g.. CMM, Calipers and Micrometers)
3. Demonstrate competency with manufacturing techniques and processes (e.g.. Material processing, process flow)
4. Understand and demonstrate basic design concepts (e.g. CNC programming, machine design)
5. Demonstrate knowledge of workplace safety and ethics

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 121	Algebra/Trigonometry I	2	2	3
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences Elective	3	0	3
II.	**Required Core Technical Courses - 24 Credit Hours**				
	DFT 151	CAD I	2	3	3
	DFT 154	Intro Solid Modeling	2	3	3
	EGR 250	Statics & Strength of Material	4	3	5
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	MEC 161	Manufacturing Processes I	3	0	3
	MEC 180	Engineering Materials	2	3	3
	PHY 131	Physics- Mechanics	3	2	4
		OR			
	PHY 151	College Physics I (3-2-4)			
III.	**Other Major Required Courses - 12/13 Credit Hours**				
	CIS 110	Intro to Computers	2	2	3
	ISC 121	Environmental Health and Safety	3	0	3
	ISC 132	Manufacturing Quality Control	2	3	3
	MAC 141	Machine Applications I	2	6	4
		OR			
	ATR 211	Robot Programming (2-3-3)			
	Choose one of the following Tracks				
	Track A (Mechanical Engineering) – 22 Credit Hours				
	EGR 110	Intro to Engineering Tech.	1	2	2
	MAC 114	Intro to Metrology	2	0	2
	MAC 121	Introduction to CNC	2	0	2
	MAT 122	Algebra/Trigonometry II	2	2	3
		OR			
	MAT 172	Precalculus Trigonometry (3-2-4)			
		OR			
	MAT 152	Statistical Methods I (3-2-4)			
	MEC 181	Introduction to CIM	2	0	2
	MEC 231	Comp-Aided Manufacturing I	1	4	3
	MEC 232	Computer Aided Manufacturing II	1	4	3
	MEC 270	Machine Design	3	3	4
	MEC 271	Machine Design Project	0	3	1

			Class Hours	Lab Hours	Credit Hours
	Track B (Mechatronics) – 22 Credit Hours				
	EGR 285	Design Project	0	4	2
	ELC 112	DC/AC Electricity	3	6	5
	ELC 128	Intro to PLCs	2	3	3
	ELN 133	Digital Electronics	3	3	4
	ELN 229	Industrial Electronics	3	3	4
	PHY 132	Physics Electricity/Magnetism	3	2	4
	Track C (Mechanical Drafting) – 22 Credit hours				
	DDF 211	Design Process I	1	6	4
	DDF 221	Design Drafting Project	0	4	2
	DFT 111	Technical Drafting I	1	3	2
	DFT 111A	Technical Drafting I Lab	0	3	1
	DFT 112	Technical Drafting II	1	3	2
	DFT 112A	Technical Drafting II Lab	0	3	1
	DFT 121	Intro to GD&T	1	2	2
	DFT 152	CAD II	2	3	3
	MAC 121	Introduction to CNC	2	0	2
	MEC 231	Comp-Aided Manufacturing I	1	4	3
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**74-76**

Mechanical Engineering Technology Certificates

			Class Hours	Lab Hours	Credit Hours
Mechanical Engineering Technology – 18 Credit Hours (C40320)					
	DFT 151	CAD I	2	3	3
	HYD 110	Hydraulics/Pneumatics I	2	3	3
	ISC 132	Mfg Quality Control	2	3	3
	MEC 231	Comp-Aided Manufacturing I	1	4	3
	MEC 180	Engineering Materials	2	3	3
	MEC 161	Manufacturing Processes I	3	0	3
Mechanical Engineering Technology Transition – 17/18 Credit Hours (C4032002)					
	DFT 151	CAD I	2	3	3
	DFT 152	CAD II	2	3	3
	EGR 250	Statics / Strength of Materials	4	3	5
	MEC 180	Engineering Materials	2	3	3
	MAT 121	Algebra/Trigonometry I	2	2	3
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			

*These courses are recommended for students intending to enter Western Carolina University's B.S. Engineering Technology - Distance Learning program.

Medical Office Administration Degrees

Curriculum Description
The Medical Office Administration curriculum prepares individuals for employment as medical administrative personnel in the areas of medical office, medical billing and coding, dental office, patient services, and medical documents. Course work includes medical terminology, computer applications, medical office management, medical coding, medical insurance and billing, medical legal and ethical issues, oral and written communication, and other topics depending on the subject area selected within this curriculum. Graduates should qualify for employment opportunities in a variety of medical office positions in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other healthcare related organizations. Upon graduation, students may be eligible to sit for industry recognized certification exams.

Program Student Learning Outcomes
Graduates will be able to:
1. Effectively communicate and interpret medical terminology in oral and written communications
2. Understand and illustrate the importance of law and ethics in a healthcare setting
3. Discuss various reimbursement methodologies and articulate how methods impact the medical practice
4. Exhibit proficiency in the use of medical office computer systems, specifically practice management and electronic medical record software
5. Demonstrate proficiency in office systems management

Medical Office Administration Degree (A25310H)
Healthcare Administration

				Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/17 Credit Hours**					
	ENG 111	Writing & Inquiry		3	0	3
	ENG 112	Writing/Research in the Disc		3	0	3
		OR				
	COM 231	Public Speaking		3	0	3
	BIO 163	Basic Anatomy and Physiology I		4	2	5
		OR				
	MAT 110	Math Measurement & Literacy		2	2	3
	ECO 252	Prin of Macroeconomics		3	0	3
		Humanities Elective		3	0	3
II.	**Technical Core Required Courses - 24 Credit Hours**					
	CIS 110	Introduction to Computers		2	2	3
	MED 121	Medical Terminology I		3	0	3
	MED 122	Medical Terminology II		3	0	3
	OST 148	Med Ins & Billing		3	0	3
	OST 164	Office Editing		3	0	3
	OST 134	Text Entry and Formatting		2	2	3
	OST 149	Medical Legal Issues		3	0	3
	OST 289	Office Admin Capstone		2	2	3
III.	**Required Subject Areas - 12 Credit Hours**					
	BUS 153	Human Resource Mgmt		3	0	3
	HMT 110	Intro to Healthcare Mgmt		3	0	3
	HMT 211	Long Term Care Admin		3	0	3
	HMT 212	Mgmt of Healthcare Org		3	0	3
IV.	**Other Major Required Courses - 12 Credit Hours**					
	CTS 130	Spreadsheets		2	2	3
	OST 130	Comprehensive Keyboarding		2	2	3
	OST 184	Records Management		2	2	3
	OST 243	Medical Office Simulation		2	2	3
V.	**Elective – Choose One**					
		ACC 120	Principles of Financial Accounting	3	2	4
		BUS 260	Business Communications	3	0	3
		OST 286	Professional Development	3	0	3
		OST 136	Word Processing	3	0	3
		WEB 285	Emerging Web Technologies	2	2	3
VI.	**Other Required Hours - 2 Credit Hours**					
	ACA 115	Success & Study Skills		0	2	1
		OR				
	ACA 122	College Transfer Success		0	2	1
	WBL 110	World of Work		1	0	1
Total Required Hours						**68/71**

Medical Office Administration Degree (A25310M)
Medical Billing and Coding

				Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/17 Credit Hours**					
	ENG 111	Writing & Inquiry		3	0	3
	ENG 112	Writing/Research in the Disc		3	0	3
		OR				
	COM 231	Public Speaking		3	0	3
	BIO 163	Basic Anatomy and Physiology I		4	2	5
		OR				
	MAT 110	Math Measurement & Literacy		2	2	3
	ECO 252	Prin of Macroeconomics		3	0	3
		Humanities Elective		3	0	3
II.	**Technical Core Required Courses - 24 Credit Hours**					
	CIS 110	Introduction to Computers		2	2	3
	MED 121	Medical Terminology I		3	0	3
	MED 122	Medical Terminology II		3	0	3
	OST 148	Med Ins & Billing		3	0	3
	OST 164	Office Editing		3	0	3
	OST 134	Text Entry and Formatting		2	2	3
	OST 149	Medical Legal Issues		3	0	3
	OST 289	Office Admin Capstone		2	2	3
III.	**Required Subject Areas - 12 Credit Hours**					
	OST 247	Procedure Coding		2	2	3
	OST 248	Diagnostic Coding		2	2	3
	OST 249	Medical Coding Certification Prep		2	3	3
	OST 264	Medical Auditing		3	0	3
IV.	**Other Major Required Courses - 12 Credit Hours**					
	CTS 130	Spreadsheets		2	2	3
	OST 130	Comprehensive Keyboarding		2	2	3
	OST 184	Records Management		2	2	3
	OST 243	Medical Office Simulation		2	2	3
V.	**Elective – Choose One**					
		ACC 120	Principles of Financial Accounting	3	2	4
		OST 286	Professional Development	3	0	3
		OST 136	Word Processing	3	0	3
		BUS 260	Business Communications	3	0	3
		WEB 285	Emerging Web Technologies	2	2	3
VI.	**Other Required Hours - 2 Credit Hours**					
	ACA 115	Success & Study Skills		0	2	1
		OR				
	ACA 122	College Transfer Success		0	2	1
	WBL 110	World of Work		1	0	1
Total Required Hours						**68/71**

Medical Office Administration Degree (A25310S)
Patient Services Representative

				Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/17 Credit Hours**					
	ENG 111	Writing & Inquiry		3	0	3
	ENG 112	Writing/Research in the Disc		3	0	3
		OR				
	COM 231	Public Speaking		3	0	3
	BIO 163	Basic Anatomy and Physiology I		4	2	5
		OR				
	MAT 110	Math Measurement & Literacy		2	2	3
	ECO 252	Prin of Macroeconomics		3	0	3
		Humanities Elective		3	0	3
II.	**Technical Core Required Courses - 24 Credit Hours**					
	CIS 110	Introduction to Computers		2	2	3
	MED 121	Medical Terminology I		3	0	3
	MED 122	Medical Terminology II		3	0	3
	OST 148	Med Ins & Billing		3	0	3
	OST 164	Office Editing		3	0	3
	OST 134	Text Entry and Formatting		2	2	3
	OST 149	Medical Legal Issues		3	0	3
	OST 289	Office Admin Capstone		2	2	3
III.	**Required Subject Areas - 12 Credit Hours**					
	BUS 125	Personal Finance		3	0	3
	BUS 260	Business Communications		3	0	3
	MKT 223	Customer Service		3	0	3
	OST 286	Professional Development		3	0	3
IV.	**Other Major Required Courses - 12 Credit Hours**					
	CTS 130	Spreadsheets		2	2	3
	OST 130	Comprehensive Keyboarding		2	2	3
	OST 184	Records Management		2	2	3
	OST 243	Medical Office Simulation		2	2	3
V.	**Elective – Choose One**					
		ACC 120	Principles of Financial Accounting	3	2	4
		OST 286	Professional Development	3	0	3
		OST 136	Word Processing	3	0	3
		BUS 260	Business Communications	3	0	3
		WEB 285	Emerging Web Technologies	2	2	3
VI.	**Other Required Hours - 2 Credit Hours**					
	ACA 115	Success & Study Skills		0	2	1
		OR				
	ACA 122	College Transfer Success		0	2	1
	WBL 110	World of Work		1	0	1
Total Required Hours						**68/71**

Medical Office Administration Diploma (D25310)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 111	Writing & Inquiry	3	0	3
	ECO 252	Principles of Macroeconomics	3	0	3
II.	**Technical Core Required Courses - 21 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	MED 121	Medical Terminology I	3	0	3
	MED 122	Medical Terminology II	3	0	3
	OST 134	Text Entry and Formatting	2	2	3
	OST 148	Med Ins & Billing	3	0	3
	OST 149	Medical Legal Issues	3	0	3
	OST 164	Office Editing	3	0	3
III.	**Other Major Required Courses - 9 Credit Hours**				
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 286	Professional Development	3	0	3
	OST 243	Medical Office Simulation	2	2	3
IV.	**Other Required Hours - 2 Credit Hours**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
	WBL 110	World of Work	1	0	1
Total Required Hours					**38**

Medical Office Administration Certificates

		Class Hours	Lab Hours	Credit Hours
Healthcare Administration Certificate - 18 Credit Hours (C25310H)				
OST 148	Medical Ins & Billing	3	0	3
CIS 110	Introduction to Computers	3	0	3
BUS 153	Human Resource Mgmt	3	0	3
HMT 110	Intro to Healthcare Mgmt	3	0	3
HMT 211	Long Term Care Admin	3	0	3
HMT 212	Mgmt of Healthcare Org	3	0	3
Medical Billing and Coding Certificate - 18 Credit Hours (C25310M)				
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3
OST 247	Procedure Coding	2	2	3
OST 248	Diagnostic Coding	2	2	3
OST 249	Medical Coding Certification Prep	2	3	3
OST 264	Medical Auditing	3	0	3
Medical Office Administration General Certificate - 12 Credit Hours (C25310G)				
CIS 110	Introduction to Computers	2	2	3
OST 148	Med Coding Billing & Insu	3	0	3
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3
Patient Services Representative Certificate - 12 Credit Hours (C25310S)				
MED 121	Medical Terminology I	3	0	3
MED 122	Medical Terminology II	3	0	3
MKT 223	Customer Service	3	0	3
OST 286	Professional Development	3	0	3

Occupational Education Associate Degree (A55320)

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.

Program Student Learning Outcomes
Graduates will be able to:

1. Create environments that are healthy, respectful, supportive, and challenging to ALL children
2. Design and implement developmentally effective curriculum that addresses all domains of learning
3. Support and empower ALL children, families, and communities through trusting and respectful reciprocal relationships
4. Use authentic assessment responsibility to make informed decisions to guide ALL children's learning
5. Communicate effectively using standard written and verbal skills
6. Utilize technology to enhance learning for ALL children
7. Serve as a leader, advocate, and professional in the fields of early education

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
	PSY 150	General Psychology	3	0	3
		Humanities Elective	3	0	3
II.	**Required Core Courses - 21 Credit Hours**				
	EDU 175	Introduction to Trade & Ind Ed	3	0	3
	EDU 176	Occupational Analysis and Course Dev	3	0	3
	EDU 177	Instructional Methods	2	2	3
	EDU 179	Vocational Student Organizations	3	0	3
	EDU 271	Educational Technology	2	2	3
	EDU 281	Instruc Strat/Read and Writ	2	2	3
	ISC 121	Environmental Health & Safety	3	0	3
III.	**Other Major Required Courses - 29 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	EDU 131	Child, Family & Community	3	0	3
	EDU 161	Intro to Exceptional Child	3	0	3
	EDU 163	Classroom Management	3	0	3
	EDU 243	Learning Theory	3	0	3
	EDU 244	Human Growth/Development	3	0	3
	EDU 245	Policies and Procedures	3	0	3
	EDU 289	Advanced Issues/School Age	2	0	2
	Specialty Area				6 Hrs
	1. Through work experience or informal course work				
	2. Through formal training in field				
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66**

Occupational Education Associate Diploma (D55320)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education - 6 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	PSY 150	General Psychology	3	0	3
II.	**Required Core Courses - 21 Credit Hours**				
	EDU 175	Introduction to Trade & Ind Ed	3	0	3
	EDU 176	Occupational Analysis and Course Dev	3	0	3
	EDU 177	Instructional Methods	2	2	3
	EDU 179	Vocational Student Organizations	3	0	3
	EDU 271	Educational Technology	2	2	3
	EDU 281	Instruc Strat/Read and Writ	2	2	3
	ISC 121	Environmental Health & Safety	3	0	3
III.	**Other Major Required Courses - 9 Credit Hours**				
	CIS 110	Introduction to Computers	2	2	3
	EDU 161	Intro to Exceptional Child	3	0	3
	EDU 163	Classroom Management	3	0	3
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**37**

Occupational Education Associate Certificate (C55320)

		Class Hours	Lab Hours	Credit Hours
EDU 175	Introduction to Trade & Ind Ed	3	0	3
EDU 177	Instructional Methods	2	2	3
EDU 179	Vocational Student Organizations	3	0	3
EDU 271	Educational Technology	2	2	3
EDU 281	Instruc Strat/Read and Writ	2	2	3
ISC 121	Environmental Health & Safety	3	0	3
Total Required Hours				**18**

Office Administration Degrees

Curriculum Description
The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace. Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills. Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

Program Student Learning Outcomes
Graduates will be able to:

1. Key, format, and edit business documents according to professional guidelines and industry standards
2. Analyze the ability to understand the office environment, procedures, and policies
3. Display appropriate communication skills within the office environment
4. Develop business documents utilizing appropriate word processing software.
5. Develop business documents utilizing appropriate spreadsheet software.
6. Develop business documents utilizing appropriate presentation software.

Office Administration - Degree (A25370C)
Customer Service

			Class Hours	Lab Hours	Credit Hours
1.	**General Education Requirements - 15 Credit Hours**				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
		Humanities Elective	3	0	3
II.	**Required Core Courses - 24 Credit Hours**				
	BUS 260	Business Communication	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	MKT 223	Customer Service	3	0	3
	OST 134	Text Entry and Formatting	2	2	3
	OST 164	Text Editing Applications	3	0	3
	OST 184	Records Management	2	2	3
	OST 286	Professional Development	3	0	3
	OST 289	Administrative Office Management	2	2	3
III.	**Other Major Required Courses - 26 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 110	Introduction to Business	3	0	3
	BUS 115	Business Law I	3	0	3
	BUS 253	Leadership and Management Skills	3	0	3
	CTS 130	Spreadsheet	2	2	3
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 136	Word Processing	2	2	3
	WEB 285	Emerging Web Technologies	2	2	3
	WBL 110	World of Work	1	0	1
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66/67**

Office Administration Degree (A25370L)
Legal Office

			Class Hours	Lab Hours	Credit Hours
1.	**General Education Requirements - 15 Credit Hours**				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
		Humanities Elective	3	0	3
II.	**Required Core Courses - 24 Credit Hours**				
	BUS 115	Business Law I	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	OST 134	Text Entry and Formatting	2	2	3
	OST 155	Legal Terminology	3	0	3
	OST 156	Legal Office Procedures	2	2	3
	OST 164	Office Editing Applications	3	0	3
	OST 184	Records Management	2	2	3
	OST 289	Office Administration Capstone	2	2	3
III.	**Other Major Required Courses - 26 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 153	Human Resources Management	3	0	3
	BUS 260	Business Communication	3	0	3
	CTS 130	Spreadsheet	2	2	3
	MKT 223	Customer Service	3	0	3
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 136	Word Processing	2	2	3
	OST 286	Professional Development	3	0	3
	WBL 110	World of Work	1	0	1
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**66/67**

Office Administration Degree (A25370F)
Office Finance

			Class Hours	Lab Hours	Credit Hours
1.	**General Education Requirements - 15 Credit Hours**				
	ECO 252	Prin of Macroeconomics	3	0	3
	ENG 111	Writing & Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking	3	0	3
	MAT 110	Mathematical Measurement and Literacy	2	2	3
		OR			
	MAT 143	Quantitative Literacy	2	2	3
		OR			
	MAT 152	Statistical Methods I	3	2	4
		Humanities Elective	3	0	3
II.	**Required Core Courses - 25 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	ACC 150	Accounting Software Applications	1	2	2
	BUS 125	Personal Finance	3	0	3
	CIS 110	Introduction to Computers	2	2	3
	OST 134	Text Entry and Formatting	2	2	3
	OST 164	Office Editing Applications	3	0	3
	OST 184	Records Management	2	2	3
	OST 289	Office Administration Capstone	2	2	3
III.	**Other Major Required Courses - 24 Credit Hours**				
	ACC 121	Managerial Accounting	3	2	4
	ACC 140	Payroll Accounting	1	2	2
	ACC 180	Bookkeeping	3	0	3
	BUS 115	Business Law I	3	0	3
	CTS 130	Spreadsheet	2	2	3
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 136	Word Processing	2	2	3
	OST 286	Professional Development	3	0	3
	WBL 110	World of Work	1	0	1
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**65/66**

Office Administration Diploma (D25370)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education - 6 Credit Hours**				
	ENG 111	Writing & Inquiry	3	0	3
	ECO 252	Principles of Macroeconomics	3	0	3
II.	**Required Core Courses - 15 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	2	2	3
	OST 289	Administrative Office Management	2	2	3
III.	**Other Major Required Courses - 19 Credit Hours**				
	ACC 120	Prin of Financial Acct	3	2	4
	BUS 115	Business Law I	3	0	3
	OST 130	Comprehensive Keyboarding	2	2	3
	OST 136	Word Processing	2	2	3
	OST 286	Professional Development	3	0	3
	CTS 130	Spreadsheet	2	2	3
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**41**

Office Administration Certificates

		Class Hours	Lab Hours	Credit Hours
Office Administration - 15 Credit Hours (C25370)				
CIS 110	Introduction to Computers	2	2	3
OST 130	Comprehensive Keyboarding	2	2	3
OST 134	Text Entry & Formatting	2	2	3
OST 136	Word Processing	2	2	3
OST 164	Office Editing	3	0	3
Office Administration – Customer Service Certificate 15 Credit Hours (C25370C)				
BUS 253	Leadership and Management	3	0	3
MKT 223	Customer Service	3	0	3
OST 130	Comprehensive Keyboarding	2	2	3
OST 134	Text Entry and Formatting	2	2	3
OST 286	Professional Development	3	0	3
Office Administration – Legal Office Certificate – 15 Credit Hours (C25370L)				
BUS 115	Business Law	3	0	3
OST 130	Comprehensive Keyboarding	2	2	3
OST 134	Text Entry and Formatting	2	2	3
OST 136	Word Processing	2	2	3
OST 155	Legal Terminology	3	0	3
Office Administration - Office Finance Certificate - 15 Credit Hours (C25370F)				
ACC 120	Principles of Financial Accounting	3	2	4
ACC 150	Accounting Software Applications	1	2	2
OST 130	Comprehensive Keyboarding	2	2	3
OST 134	Text Entry and Formatting	2	2	3
OST 184	Records Management	2	2	3

Welding Technology Degree (A50420)

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 metalworking industry.

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

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.

Program Student Learning Outcomes

Graduates will be able to:

1. Understand the disciplines specific and critical for the safe and reasonable practice of welding
2. Demonstrate the abilities, attributes and characteristics desired by the construction industry, including effective relationship skills and effective self-presentation to demonstrate employability, and key workplace skills such as critical thinking and problem solving
3. Possess the intellectual abilities, the exercise of good judgment, and the prompt completion of all responsibilities required for the certification process associated with the AWS certification
4. Develop mature, sensitive, effective, and professional relationships with other students, faculty members, department administrators, industry partners, and potential employers
5. Conditioned, physically and mentally ability to tolerate taxing workloads and display flexibility to learning and functioning under stress when faced with uncertainties inherent to the welding occupation
6. Demonstrate knowledge of the machines, tools and equipment with understanding of their design, use, maintenance, and safety procedures for the protection of the people and property
7. Understand the materials, production processes, quality control, and cost for maximizing the effective manufacturing goods and the welding process
8. Differentiate coupon performance task monitoring and assessing of daily performance of oneself and others, organizing, seeking instructional cretic
9. Observe, recreate, imitate the task with reliable expertise with high quality and minimal instruction, and demonstrate to other learners and instructors

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 15/16 Credit Hours**				
	ENG 111	Writing and Inquiry	3	0	3
	ENG 112	Writing/Research in the Disc	3	0	3
		OR			
	COM 231	Public Speaking (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
		OR			
	MAT 171	Precalculus Algebra (3-2-4)			
		Humanities/Fine Arts Elective	3	0	3
		Social/Behavioral Sciences 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 Required Courses - 36 Credit Hours**				
	BPR 111	Print Reading	1	2	2
	CIS 110	Introduction to Computers	2	2	3
	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

			Class Hours	Lab Hours	Credit Hours
	WLD 215	SMAW (Stick) Pipe	1	9	4
	WLD 231	GTAW (Tig) Pipe	1	6	3
	WLD 261	Certification Practices	1	3	2
	WLD 262	Inspection and Testing	2	2	3
	WOL 110	Basic Construction Skills	2	3	3
IV.	**Other Required Hours - 1 Credit Hour**				
	ACA 115	Success & Study Skills	0	2	1
		OR			
	ACA 122	College Transfer Success	0	2	1
Total Required Hours					**70/71**

Welding Technology Diploma (D50420)

			Class Hours	Lab Hours	Credit Hours
I.	**General Education Requirements - 6 Credit Hours**				
	ENG 101	Applied Communications I	3	0	3
		OR			
	ENG 111	Writing and Inquiry (3-0-3)			
	MAT 110	Math Measurement & Literacy	2	2	3
		OR			
	MAT 121	Algebra/Trigonometry I (2-2-3)			
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 Required Courses - 23 Credit Hours**				
	BPR 111	Print Reading	1	2	2
	WLD 116	SMAW (Stick) Plate/Pipe	1	9	4
	WLD 122	GMAW (MIG) Plate/Pipe	1	6	3
	WLD 132	GTAW (TIG) Plate/Pipe	1	6	3
	WLD 143	Welding Metallurgy	1	2	2
	WLD 215	SMAW (Stick) Pipe	1	9	4
	WLD 261	Certification Practices	1	3	2
	WOL 110	Basic Construction Skills	2	3	3
Total Required Hours					**47**

Welding Technology Certificates

		Class Hours	Lab Hours	Credit Hours
Basic Welding - 16 Credit Hours (C5042001)				
BPR 111	Print Reading	1	2	2
WLD 110	Cutting Processes	1	3	2
WLD 115	SMAW (stick) Plate	2	9	5
WLD 116	SMAW (Stick) Plate/Pipe	1	9	4
WOL 110	Basic Construction Skills	2	3	3

**If students successfully complete all modules, upon completion of this certificate they will earn Level I Welding NCCER credential.

Advanced Welding – 16 Credit Hours (C5042002)				
WLD 121	GMAW (MIG) FCAW/Plate	2	6	4
WLD 122	GMAW (MIG) Plate/Pipe	1	6	3
WLD 131	GTAW (TIG) Plate	2	6	4
WLD 141	Symbols and Specifications	2	2	3
WLD 143	Welding Metallurgy	1	2	2

**If students successfully complete all modules, upon completion of this certificate they will earn Level II Welding NCCER credential.

Advanced Welding and Inspection Processes– 15 Credit Hours (C5042003)				
WLD 132	GTAW (TIG) Plate/Pipe	1	6	3
WLD 215	SMAW (Stick) Pipe	1	9	4
WLD 231	GTAW (Tig) Pipe	1	6	3
WLD 261	Certification Practices	1	3	2
WLD 262	Inspection and Testing	2	2	3

**If students successfully complete all modules, upon completion of this certificate they will earn Level III Welding NCCER credential.

Welding Technology – 18 Credit Hours (C50420)				
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
WOL 110	Basic Construction Skills	2	3	3

COURSE DESCRIPTIONS

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

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

The following abbreviations after certain course descriptions indicate the semester in which those courses are usually offered: F=Fall, Sp=Spring, S=Summer. "On Demand" will indicate courses offered only when there is sufficient demand to justify scheduling the course.

ACADEMIC RELATED

ACA 115 Success & Study Skills (0 2 1)
Prerequisites: None
Corequisites: None
This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals. (F. Sp. S.)

ACA 122 College Transfer Success (0 2 1)
Prerequisites: None
Corequisites: None
This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

ACCOUNTING

ACC 120 Principles of Financial Accounting (3 2 4)
Prerequisites None
Corequisites: None
This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

ACC 121 Principles of Managerial Accounting (3 2 4)
Prerequisites: ACC 120
Corequisites: None
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

ACC 129 Individual Income Taxes (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms. (Sp.)

ACC 180 Practices in Bookkeeping (3 0 3)
Prerequisites: ACC 120
Corequisites: None
This course provides advanced instruction in bookkeeping and record-keeping functions. Emphasis is placed on mastering adjusting entries, correction of errors, depreciation, payroll, and inventory. Upon completion, students should be able to conduct all key bookkeeping functions for small business. (Sp.)

ACC 220 Intermediate Accounting I (3 2 4)
Prerequisites: ACC 120
Corequisites: None
This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and extensive analysis of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards. (F.)

AGRICULTURE

AGR 111 Basic Farm Maintenance (1 3 2)
Prerequisites: None
Corequisites: None
This course covers fundamentals of maintenance and repair of farm facilities and equipment. Topics include safe use of hand tools and farm machinery, carpentry, concrete, painting, wiring, welding, plumbing, and calculating costs and materials needed. Upon completion, students should be able to answer theoretical questions on topics covered and assist with maintenance and repair of farm facilities and equipment. (Sp.)

AGR 139 Intro to Sustainable Ag (3 0 3)
Prerequisites: None
Corequisites: None
This course will provide students with a clear perspective on the principles, history and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Upon completion, students will be able to identify the principles of sustainable agriculture as they relate to basic production practices. (F.)

AGR 140 Agricultural Chemicals (2 2 3)
Prerequisites: None
Corequisites: None
This course covers all aspects of agricultural chemicals. Topics include safety, environmental effects, federal and state laws, pesticide classification, sprayer calibration, and licensing. Upon completion, students should be able to calibrate a sprayer, give proper pesticide recommendations (using integrated pest management), and demonstrate safe handling of pesticides. (F. Sp. S.)

AGR 170 Soil Science (2 2 3)
Prerequisites: None
Corequisites: None
This course covers the basic principles of soil management and fertilization. Topics include liming, fertilization, soil management, biological properties of soil (including beneficial microorganisms), sustainable land care practices and the impact on soils, and plant nutrients. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices. (F.)

AGR 210 Agricultural Accounting (1 4 3)
Prerequisites: None
Corequisites: None
This course covers the basic principles and practices of accounting and bookkeeping as they relate to the agricultural industry. Topics include general accounting terminology, data entry practices, and analysis of records for tax purposes. Upon completion, students should be able to complete a basic record book and analyze records for tax purposes. (F.)

AGR 212 Farm Business Management (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces budgeting, farm analysis, production costs, business organizations, and general management principles. Topics include enterprise budgets, partial budgets, whole farm budgets, income analysis, and business organizations. Upon completion, students should be able to prepare and analyze a farm budget. (Sp.)

AGR 213 Ag Law & Finance (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the basic laws and financial aspects affecting agriculture. Topics include environmental laws, labor laws, contractual business operations, assets, liabilities, net worth, and funding sources. Upon completion, students should be able to complete loan application procedures and explain basic laws affecting the agricultural industry. (Sp.)

AGR 214 Agricultural Marketing (3 0 3)
Prerequisites: None
Corequisites: None
This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product. (Sp.)

AGR 261 Agronomy (2 2 3)
Prerequisites: None
Corequisites: None
This course provides a basic introduction to field and forage crops. Topics include forage crops, field crops, seed selection, fertility management, field preparation, harvesting, and storage. Upon completion, students should be able to demonstrate a knowledge of forage and field crop production practices. (F.)

AIR CONDITIONING, HEATING AND REFRIGERATION

AHR 120 HVACR Maintenance (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs. (Sp.)

AHR 130 HVAC Controls (2 2 3)
Prerequisites: AHR 111, ELC 111 or ELC 112
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. (Sp.)

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. (F. Sp.)

AHR 160 Refrigerant Certification (1 0 1)
Prerequisites: None
Corequisites: None
This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations. (Sp.)

AHR 210 Residential Building Code (1 2 2)
Prerequisites: None
Corequisites: None
This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade. (F. Sp.)

AHR 211 Residential System Design (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system. (F. Sp.)

ALTERNATIVE ENERGY TECHNOLOGY

ALT 120 Renewable Energy Tech (2 2 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydo-electric, wind power, passive and active solar energy, tidal energy, appropriate building techniques, and energy conservation methods. Upon completion, students should be able to demonstrate an understanding of renewable energy production and its impact on humans and their environment. (F.)

ALT 250 Thermal Systems (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations. (Sp.)

ANIMAL SCIENCE

ANS 110 Animal Science (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the livestock industry. Topics include nutrition, reproduction, production practices, diseases, meat processing, sustainable livestock production, and marketing. Upon completion, students should be able to demonstrate a basic understanding of livestock production practices and the economic impact of livestock locally, regionally, state-wide, and internationally. (F. S.)

ANS 115 Animal Feeds & Nutrition (2 2 3)
Prerequisites: None
Corequisites: None
This course covers the fundamentals of animal feeding and nutrition. Topics include nutrient requirements, digestion, feed formulation, and classification. Upon completion, students should be able to demonstrate knowledge of nutritional requirements and feeding practices of farm animals. (Sp.)

ANS 116 Intro to the Equine Ind (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to the equine industry. Topics include history, breeds, disciplines, economic impact, and career opportunities within the industry. Upon completion, students should be able to demonstrate a basic understanding of the equine industry and as it relates to animal science, production, and management. (F. S.)

ANS 180 Equine Production (3 2 4)
Prerequisites: None
Corequisites: None
This course provides an introduction to the production of horses. Topics include anatomy and physiology, reproduction, genetics, selection, and basic management practices. Upon completion, students should be able to demonstrate a basic understanding of the production and management of horses. (Sp.)

ANTHROPOLOGY

ANT 210 General Anthropology (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (on demand)

ANT 220 Cultural Anthropology (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (on demand)

ARCHITECTURE

ARC 111 Introduction to Architectural Technology (1 6 3)
Prerequisites: None
Corequisites: None
This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards. (F. Sp. S.)

ARC 112 Constr Matls & Methods (3 2 4)
Prerequisites: None
Corequisites: None
This course introduces construction materials and methodologies. Topics include construction terminology, traditional and alternative materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties. (F. Sp.)

ARC 114 Architectural CAD (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards. (F. Sp.)

ARC 131 Building Codes (2 2 3)
Prerequisites: ARC-112 or CAR-111
Corequisites: None
This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing construction projects. (Sp.)

ART

ART 111 Art Appreciation (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp. S.)

ART 114 Art History Survey 1 (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

ART 115 Art History Survey 1I (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

ART 118 Art by Women (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an analytical study of the works of representative female artists. Emphasis is placed on the historical and cultural contexts, themes, and aesthetic features of individual works. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 121 Two-Dimensional Design (0 6 3)
Prerequisites: None
Corequisites: None
This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 131 Drawing I (0 6 3)
Prerequisites: None
Corequisites: None
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 132 Drawing II (0 6 3)
Prerequisites: ART 131
Corequisites: None
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 140 Basic Painting (0 4 2)
Prerequisites: None
Corequisites: None
This course introduces the mechanics of painting. Emphasis is placed on the exploration of painting media through fundamental techniques. Upon completion, students should be able to demonstrate a basic understanding and application of painting. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 240 Painting I (0 6 3)
Prerequisites: None
Corequisites: None
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ART 241 Painting II (0 6 3)
Prerequisites: ART 240
Corequisites: None
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

ASTRONOMY

AST 111 Descriptive Astronomy (3 0 3)
Prerequisites: None
Corequisites: AST 111A
This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

AST 111A Descriptive Astronomy Lab (0 2 1)
Prerequisites: None
Corequisites: AST 111
This course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

AST 151 General Astronomy I (3 0 3)
Prerequisites: DMA 010, 020, 030, 040 and 050 (L)
Corequisites: 151A
This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp.)

AST 151A General Astronomy I Lab (0 2 1)
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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp.)

AST 152 General Astronomy II (3 0 3)
Prerequisites: AST 151/151A
Corequisites AST 152A
This course is a continuation of AST 151 with primary emphasis beyond the solar system. Topics include the sun, stars, galaxies, and the larger universe, including cosmology. Upon completion, students should be able to demonstrate a working knowledge of astronomy. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

AST 152A General Astronomy II Lab (0 2 1)
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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

AST 251 Observational Astronomy (1 3 2)
Prerequisites: AST 111 or AST 152
Corequisites: None
This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

AUTOMATION & ROBOTICS

ATR 211 Robot Programming (2 3 3)
Prerequisites: None
Corequisites: None
This course provides the operational characteristics of robots and programming in their respective languages. Topics include robot programming, teach pendants, PLC integration, operator interfaces, the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots. (F.)

ATR 215 Sensors and Transducers (2 3 3)
Prerequisites: None
Corequisites: None
This course provides the theory and application of sensors typically found in an automated manufacturing system. Topics include physical properties, operating range, and other characteristics of numerous sensors and transducers used to detect temperature, pressure, position, and other desired physical parameters. Upon completion, students should be able to properly interface a sensor to a PLC, PC, or process control system. (F. Sp. S.)

ATR 218 Work Cell Integration (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces high technology systems which are currently being used in new automated manufacturing facilities. Topics include integration of robots and work cell components, switches, proxes, vision and photoelectric sensors, with the automated control and data gathering systems. Upon completion, students should be able to install, program, and troubleshoot an automated manufacturing cell and its associated data communications systems. (F. Sp. S.)

AUTOMOTIVE BODY REPAIR

AUB 111 Painting & Refinishing I (2 6 4)
Prerequisites: None
Corequisites: None
This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards. (F.)

AUB 112 Painting & Refinishing II (2 6 4)
Prerequisites: AUB 111
Corequisites: None
This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems. (Sp.)

AUB 114 Special Finishes (1 2 2)
Prerequisites: AUB 111
Corequisites: None
This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards. (S.)

AUB 121 Non-Structural Damage I (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/ replacing of body panels to accepted standards. (F.)

AUB 122 Non-Structural Damage II (2 6 4)
Prerequisites: None
Corequisites: None
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware. (Sp.)

AUB 131 Structural Damage I (2 4 4)
Prerequisites: None
Corequisites: None
This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage. (F.)

AUB 132 Structural Damage II (2 6 4)
Prerequisites: AUB 131
Corequisites: None
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards. (S.)

AUB 136 Plastics & Adhesives (1 4 3)
Prerequisites: None
Corequisites: None
This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards. (Sp.)

AUB 150 Automotive Detailing (1 3 2)
Prerequisites: None
Corequisites: None
This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle. (S.)

AUB 160 Body Shop Operations (1 0 1)
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. (F.)

AUB 162 Autobody Estimating (1 2 2)
Prerequisites: None
Corequisites: None
This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report. (Sp.)

AUTOMOTIVE

AUT 211 Automotive Machining (2 6 4)
Prerequisites: None
Corequisites: None
This course covers engine machining processes for remanufacturing automotive engines. Emphasis is placed on cylinder head service, machining block surfaces, reconditioning connecting rod assemblies, camshafts, flywheels, and precision measurement. Upon completion, students should be able to explain the operation and proper use of automotive machining equipment. (F.)

BANKING AND FINANCE

BAF 110 Principles of Banking (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective. (F.)

BAF 131 Fundamentals of Bank Lending (3 0 3)
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. (Sp.)

BAF 141 Law & Banking: Principles (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an overview of the legal aspects of banking and the legal framework within which banks function. Topics include the court system, consumer protection, tangible and intangible property ownership, and the legalities and regulations of bank transactions. Upon completion, students should be able to discuss the non-technical aspects of the legal system and how these affect the bank's organization and operation. (F.)

BAF 222 Money and Banking (3 0 3)
Prerequisites: None
Corequisites: None
This course provides a fundamental treatment of how money and banks function in the US and world economies. Topics include the roles of money in the US economy, the functions of the Federal Reserve Board, and the workings of monetary and fiscal policies. Upon completion, students should be able to explain how the monetary economy functions, how banks are creators of money, and the impact of the Federal Reserve. (Sp.)

BIOLOGY

BIO 110 Principles of Biology (3 3 4)
Prerequisites: None
Corequisites: None
This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. *Under the Comprehensive Articulation Agreement, this course satisfies the general education Natural Science requirement for the AA and AFA degrees. It does not satisfy the general education Natural Science requirement for the AS degree.* (on demand)

BIO 111 General Biology I (3 3 4)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp. S.)

BIO 112 General Biology II (3 3 4)
Prerequisites: BIO 111
Corequisites: None
This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp.)

BIO 120 Introductory Botany (3 3 4)
Prerequisites: BIO 110 or 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 has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

BIO 140 Environmental Biology (3 0 3)
Prerequisites: None
Corequisites: BIO 140A
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

BIO 140A Environmental Biology Lab (0 3 1)
Prerequisites: None
Corequisites: BIO 140
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. *This course is intended for all Associate degree programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

BIO 155 Nutrition (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

BIO 163 Basic Anatomy and Physiology (4 2 5)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. *This course is designed for certificate and diploma programs. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

BIO 168 Anatomy and Physiology I (3 3 4)
Prerequisites: DRE 097 (L)
Corequisites: None
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their relationships. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

BIO 169 Anatomy and Physiology II (3 3 4)
Prerequisites: BIO 168
Corequisites: None
This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

BIO 175 General Microbiology (2 2 3)
Prerequisites: BIO 110, BIO 111, BIO 163, BIO 165, or BIO 168
Corequisites: None
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement. (F.)

BIO 275 Microbiology (3 3 4)
Prerequisites: BIO 110, 111, 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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (Sp. S.)

BLUEPRINT READING

BPR 111 Print Reading (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system. (F.)

BPR 121 Blueprint Reading-Mech (1 2 2)
Prerequisites: BPR 111 or MAC 131
Corequisites: None
This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing. (Sp.)

BPR 130 Print Reading: Construction (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents. (F.)

BROADCAST PRODUCTION

BPT 110 Introduction to Broadcasting (3 0 3)
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. (F.)

BPT 111 Broadcast Law & Ethics (3 0 3)
Prerequisites: None
Corequisites: None
This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic media organizations. Emphasis is placed on legal and ethical issues including First Amendment protection, FCC regulations, copyright, and libel laws. Upon completion, students should be able to demonstrate an understanding of the historical significance and modern-day application of important broadcast laws and policies. (Sp.)

BPT 112 Broadcast Writing (3 2 4)
Prerequisites: None
Corequisites: None
This course introduces proper copy and script writing techniques and formats for radio, television, and other electronic media. Emphasis is placed on creating effective scripts for programs and promotional materials, including commercial and public radio service announcements for a specific target audience. Upon completion, students should be able to understand and write copy and scripts according to standard industry formats. (F.)

BPT 113 Broadcast Sales (3 0 3)
Prerequisites: None
Corequisites: None
This course covers sales principles applicable to radio, television, cable, and other electronic media. Emphasis is placed on prospecting and servicing accounts, developing clients, and preparing sales presentations. Upon completion, students should be able to create a sales presentation based upon standard ratings reports, prospect for new customers, and understand account management. (S.)

BPT 115 Public Relations (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the art and science of analyzing trends, predicting their consequences, counseling organizations, and implementing actions to serve organizational and public interests. Emphasis is placed on identifying public needs, conducting and analyzing research, writing and communicating 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. (F. Sp.)

BPT 121 Broadcast Speech I (2 3 3)
Prerequisites: None
Corequisites: None
This course covers basic preparation and performance of on-air talents' speaking quality. Emphasis is placed on developing a pleasant and efficient voice with techniques applied to taped news, features, commercial copy, and announcing. Upon completion, students should be able to show improvement and aptitude in proper articulation, pronunciation, rate of delivery, pitch, breathing techniques, inflection, projection, and phrasing. (F.)

BPT 131 Audio/Radio Production I (2 6 4)
Prerequisites: None
Corequisites: None
This course covers the creation, development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment and the study of basic physical behavior and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment and demonstrate an understanding of the basic components of sound. (F.)

BPT 132 Audio/Radio Production II (2 6 4)
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. (Sp.)

BPT 135 Radio Performance I (0 6 2)
Prerequisites: None
Corequisites: None
This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules. (F. Sp.)

BPT 136 Radio Performance II (0 6 2)
Prerequisites: BPT 135
Corequisites: None
This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules. (F. Sp.)

BPT 137 Radio Performance III (0 6 2)
Prerequisites: BPT 136
Corequisites: None
This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules. (F. Sp.)

BPT 138 Radio Performance IV (0 6 2)
Prerequisites: BPT 137
Corequisites: None
This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules. (F. Sp.)

BPT 139 Radio Performance V (0 6 2)
Prerequisites: BPT 138
Corequisites: None
This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules. (F. Sp.)

BPT 140 Introduction to TV Systems (2 0 2)
Prerequisites: None
Corequisites: None
This course introduces technical systems that allow production, transmission, and reception of television and other video media. Emphasis is placed on identifying components and equipment, describing their function within the video chain, and troubleshooting problems within the signal flow. Upon completion, students should be able to demonstrate an understanding of components and equipment in the video chain and provide basic preventive maintenance on equipment. (F.)

BPT 210 Broadcast Management (3 0 3)
Prerequisites: None
Corequisites: None
This course covers management duties within the fields of broadcasting and other electronic media. Emphasis is placed on the management of broadcast stations and cable systems, including financial, personnel, news, sales, and promotion management. Upon completion, students should be able to demonstrate knowledge of successful station operation, including key management concepts and strategies. (S.)

BPT 215 Broadcast Programming (3 0 3)
Prerequisites: None
Corequisites: None
This course covers programming methods, research, and resources needed to provide programs for radio, television, cable, and satellite target audiences. Topics include market research and analysis; local, network, and public station programming and program sources; and scheduling procedures for electronic media. Upon completion, students should be able to develop a programming format or schedule. (S.)

BPT 220 Broadcast Marketing (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces broadcast marketing, including cultivating an audience, building an identity, and servicing customers. Topics include the use of effective promotional tools, marketing research, rating analysis, and the development of a unified marketing plan. Upon completion, students should be able to develop a broadcast marketing plan. (Sp.)

BPT 231 Video/TV Production I (2 6 4)
Prerequisites: None
Corequisites: None
This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all forms of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment. (Sp.)

BPT 232 Video/TV Production II (2 6 4)
Prerequisites: BPT 231
Corequisites: None
This course covers advanced video and television production. Emphasis is placed on field production, post-production, digital video effects, graphics, and multi-camera productions. Upon completion, students should be able to create productions that optimize the use of studio, field, and post-production equipment. (F.)

BPT 235 TV Performance I (0 6 2)
Prerequisites: None
Corequisites: None
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties. (F. Sp.)

BPT 236 TV Performance II (0 6 2)
Prerequisites: BPT 235
Corequisites: None
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties. (F. Sp.)

BPT 237 TV Performance III (0 6 2)
Prerequisites: BPT 236
Corequisites: None
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties. (F. Sp.)

BPT 238 TV Performance IV (0 6 2)
Prerequisites: BPT 237
Corequisites: None
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties. (F. Sp.)

BPT 239 TV Performance V (0 6 2)
Prerequisites: BPT 238
Corequisites: None
This course provides hands-on experience in the operation of television studios and/or stations. Emphasis is placed on the application of skills through direct participation in the production or distribution of television programs. Upon completion, students should be able to demonstrate competence in performing key station and/or studio duties. (F. Sp.)

BPT 241 Broadcast Journalism I (3 2 4)
Prerequisites: None
Corequisites: None
This course introduces broadcast journalism, including the gathering, writing, delivery, editing, and production of news stories and reports. Emphasis is placed on proper news writing skills, including the creation of good leads and complete stories in the production of radio voices and reports. Upon completion, students should be able to write broadcast news scripts and produce radio news reports and newscasts. (F.)

BPT 242 Broadcast Journalism II (3 2 4)
Prerequisites: BPT 241
Corequisites: None
This course provides an opportunity to gather, write, edit, and produce broadcast news reports. Emphasis is placed on producing professional broadcast news reports, including script writing, gathering, and editing. Upon completion, students should be able to produce and record professional broadcast news stories. (Sp.)

BPT 250 Institutional Video (2 3 3)
Prerequisites: None
Corequisites: None
This course covers development and production of non-broadcast video productions for clients. Emphasis is placed on satisfying client objectives, including interviewing, research, site surveying, script review, photography, and post-production. Upon completion, students should be able to plan, write, shoot, and edit an institutional video designed to meet a client's objectives. (F.)

BPT 255 Computer-Based Production (2 3 3)
Prerequisites: CIS 110 or CIS 111
Corequisites: None
This course covers digital systems used for video, audio, and multimedia production. Emphasis is placed on computer-based tools integrating digital production with analog broadcast-related production. Upon completion, students should be able to understand and operate basic tools for video graphics, video capture, multimedia authoring, sound capture, and digital audio production. (Sp.)

BPT 260 Multi-Track Recording (2 2 3)
Prerequisites: BPT 132
Corequisites: None
This course covers the application of audio production techniques in a multi-track recording setting. Emphasis is placed on proper use of control room equipment and mix-down of multiple sound sources on both analog and digital recorders. Upon completion, students should be able to produce creative music or supplemental works using sound engineering techniques. (Sp.)

BPT 285 Broadcast Prod Capstone (1 6 3)
Prerequisites: BPT 132 or BPT 232
Corequisites: None
This course provides an opportunity to complete a broadcast production from the design phase through implementation with minimal instructor support. Emphasis is placed on planning/budgets, production, post-production and distribution. Upon completion, students should be able to plan, produce and distribute a broadcast production. (Sp.)

BUSINESS

BUS 110 Introduction to Business (3 0 3)
Prerequisites: None
Corequisites: None
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

BUS 115 Business Law I (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

BUS 125 Personal Finance (3 0 3)
Prerequisites: None
Corequisites; None
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan. (F. Sp.)

BUS 137 Principles of Management (3 0 3)
Prerequisites: None
Corequisites: None
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

BUS 139 Entrepreneurship I (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs. (F.)

BUS 153 Human Resource Management (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns. (F.)

BUS 225 Business Finance (2 2 3)
Prerequisites: ACC 120
Corequisites: None
This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management. (on demand)

BUS 230 Small Business Management (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan. (Sp.)

BUS 245 Entrepreneurship II (3 0 3)
Prerequisites: BUS 139
Corequisites: None
This course is designed to allow the student to develop a business plan. Topics include the need for a business plan, sections of the plan, writing the plan, and how to find assistance in preparing the plan. Upon completion, students should be able to design and implement a business plan based on sound entrepreneurship principles. (on demand)

BUS 253 Leadership and Management Skills (3 0 3)
Prerequisites: None
Corequisites: None
This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness. (F.)

BUS 260 Business Communication (3 0 3)
Prerequisites: ENG 110 or ENG 111
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. (Sp.)

CABINETMAKING

CAB 111 Cabinetmaking I (4 9 7)
Prerequisites: None
Corequisites: None
This course introduces wood technology, materials, purchasing, estimating, design considerations, and cabinet construction. Topics include wood identification and use, hand tools, safe machine operation, glue and clamping, abrasives, wood joinery, kitchen and bath layout, laminates, and finishing techniques. Upon completion, students should be able to select and process materials; make sound production decisions; and design, lay out, construct, and install cabinets. (F. Sp.)

CARPENTRY

CAR 111 Carpentry I (3 15 8)
Prerequisites: None
Corequisites: None
This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. (F. Sp. S.)

CAR 112 Carpentry II (3 15 8)
Prerequisites: CAR 111
Corequisites: None
This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision. (F. Sp. S.)

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. (F. Sp.)

COMPUTER ENGINEERING TECHNOLOGY

CET 111 Computer Upgrade/Repair I (2 3 3)
Prerequisites: None
Corequisites: 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. (F.)

CET 161 Procedural Programming (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces procedural computer programming for Engineering applications. Emphasis is placed on event-driven programming methods, including creating and manipulating data, sequencing, iteration, and blocking of code. Upon completion, students should be able to design, code, test and debug at a beginning level. (S.)

CET 245 Internet Servers (2 3 3)
Prerequisites: None
Corequisites: None
This course covers the setup and management of Internet server hardware and software. Topics include TCP/IP, FTP, SMTP, and HTTP; installation and configuration of server software for web, FTP, DNS, mail, and other services. Upon completion, students should be able to set up and maintain Internet servers. (F. Sp. S.)

CET 251 Software Eng Principles (3 3 4)
Prerequisites: None
Corequisites: None
This course introduces the methodology used to manage the development process for complex software systems. Topics include the software life cycle, resource allocation, team dynamics, design techniques, and tools that support these activities. Upon completion, students should be able to design and build robust software in a team setting. (F. Sp. S.)

CHEMISTRY

CHM 131 Introduction to Chemistry (3 0 3)
Prerequisites: DMA 010, 020, 030, 040 and 050 or satisfactory placement test scores (L)
Corequisites: CHM 131A
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demostrate a basic understanding of chemistry as it applies to other fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp.)

CHM 131A Introduction to Chemistry Laboratory (0 3 1)
Prerequisites: DMA 010, 020, 030, 040 and 050 or satisfactory placement test scores (L)
Corequisites: CHM 131
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F. Sp.)

CHM 132 Organic and Biochemistry (3 3 4)
Prerequisites: CHM 131 & 131A or CHM 151
Corequisites: None
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

CHM 151 General Chemistry I (3 3 4)
Prerequisites: DMA 010, 020, 030, 040, 050, 060, 070 and 080 or satisfactory placement test scores (L)
Corequisites: None
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences.* (F.)

CHM 152 General Chemistry II (3 3 4)
Prerequisites: CHM 151
Corequisites: None
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, 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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (Sp.)

CHM 251 Organic Chemistry I (3 3 4)
Prerequisites: CHM 152
Corequisites: None
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

CHM 252 Organic Chemistry II (3 3 4)
Prerequisites: CHM 251
Corequisites: None
This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and 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. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

CHM 261 Quantitative Analysis (2 6 4)
Prerequisites: CHM 152
Corequisites: None
This course introduces classical methods of chemical analysis with an emphasis on laboratory techniques. Topics include statistical data treatment; stoichiometric and equilibrium calculations; and titrimetric, gravimetric, acid-base, oxidation-reduction, and complexometric methods. Upon completion, students should be able to perform classical quantitative analytical procedures. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

CHM 271 Biochemical Principles (3 0 3)
Prerequisites: CHM 252
Corequisites: CHM 271A
The course covers fundamental principles of biochemistry. Topics include structures, properties, reactions, and mechanisms of biomacromolecules including amino acids, peptides, proteins, carbohydrates and nucleic acids, enzymatic metabolic pathways, and biochemical genetics. Upon completion, students should be able to demonstrate an understanding of fundamental biochemical processes. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

CHM 271A Biochemical Principles Laboratory (0 3 1)
Prerequisites: CHM 252
Corequisites: CHM 271
This course is a laboratory for CHM 271. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 271. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 271. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

INFORMATION SYSTEMS

CIS 110 Introduction to Computers (2 2 3)
Prerequisites: None Corequisites: None
This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F. Sp. S.)

CIS 115 Introduction to Programming & Logic (2 3 3)
Prerequisites: DMA 010, 020, 030, and 040
Corequisites: None
This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F.)

CIVIL ENGINEERING

CIV 230 Construction Estimating (2 3 3)
Prerequisites: ARC 111, CIS 110, CIS 111, or EGR 115
Corequisites: None
This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project. (F. Sp.)

CIV 240 Project Management (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces construction planning and scheduling techniques and project management software. Topics include construction safety, operation analysis, construction scheduling, construction control systems, claims and dispute resolutions, project records and documentation. Upon completion, students should be able to demonstrate an understanding of the roles of construction project participants, maintain construction records, and prepare construction schedules. (F. Sp.)

CRIMINAL JUSTICE

CJC 100 Basic Law Enforcement Training (9 30 19)
Prerequisites: None
Corequisites: None
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. *This is a certificate-level course.* (Sp. F.)

CJC 111 Introduction to Criminal Justice (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

CJC 112 Criminology (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response. (Sp. S. F.)

CJC 113 Juvenile Justice (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition. (Sp. S. F.)

CJC 120 Interviews/Interrogations (1 2 2)
Prerequisites: None
Corequisites: None
This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims. (Sp. F.)

CJC 121 Law Enforcement Operations (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (Sp. F.)

CJC 122 Community Policing (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing. (Sp. F.)

CJC 131 Criminal Law (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements. (Sp. S. F.)

CJC 132 Court Procedure & Evidence (3 0 3)
Prerequisites: None
Corequisites: None
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence. (Sp. S. F.)

CJC 141 Corrections (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (Sp. F.)

CJC 151 Intro to Loss Prevention (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention. (Sp. F.)

CJC 212 Ethics & Community Relations (3 0 3)
Prerequisites: None
Corequisites: None
This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations. (Sp. F.)

CJC 221 Investigative Principles (3 2 4)
Prerequisites: None
Corequisites: None
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation. (Sp. F.)

CJC 222 Criminalistics (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence. (Sp. S. F.)

CJC 223 Organized Crime (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system. (Sp. F.)

CJC 225 Crisis Intervention (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution. (Sp. F.)

CJC 231 Constitutional Law (3 0 3)
Prerequisites: None
Corequisites: None
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts. (Sp. F.)

CJC 232 Civil Liability (3 0 3)
Prerequisites: None
Corequisites: None
This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues. (Sp. F.)

CJC 255 Issues in Crim Justice App (3 0 3)
Prerequisites: CJC 111, CJC 221, and CJC 231
Corequisites: None
This course provides an opportunity to exhibit interpersonal and technical skills required for application of criminal justice concepts in contemporary practical situations. Emphasis is placed on critical thinking and integration of theory and practical skills components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level law enforcement officer. (F.)

CONSTRUCTION MANAGEMENT

CMT 120 Codes and Inspections (3 0 3)
Prerequisites: None
Corequisites: None
This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principals and requirements to construction projects. (F.)

CMT 210 Construction Management Fund (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, students should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry. (F. Sp.)

CMT 212 Total Safety Performance (3 0 3)
Prerequisites: None
Corequisites: CMT 210
This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, the student should be able to properly supervise safety at a construction jobsite and qualify for OSHA Training Certification. (F. Sp.)

CMT 214 Planning and Scheduling (3 0 3)
Prerequisites: CMT 210 and BPR 130
Corequisites: None
This course covers the need for and the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling formats, planning for production, short interval planning, schedule updating and revising, and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills. (F. Sp.)

COMMUNICATION

COM 231 Public Speaking (3 0 3)
Prerequisites: None
Corequisites: None
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp. S.)

COM 251 Debate I (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

COSMETOLOGY

COS 111 Cosmetology Concepts I (4 0 4)
Prerequisites: None
Corequisites: COS 112
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting. (Sp. F.)

COS 112 Salon I (0 24 8)
Prerequisites: None
Corequisites: COS 111
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services. (Sp. F.)

COS 113 Cosmetology Concepts II (4 0 4)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 114 Salon II (0 24 8)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 115 Cosmetology Concepts III (4 0 4)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 116 Salon III (0 12 4)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 117 Cosmetology Concepts IV (2 0 2)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 118 Salon IV (0 21 7)
Prerequisites: COS 111 and COS 112
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. (Sp. F.)

COS 119 Esthetics Concepts I (2 0 2)
Prerequisites: None
Corequisites: None
This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements. (Sp. F.)

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. (Sp. F.)

COS 121 Manicure/Nail Technology I (4 6 6)
Prerequisites: None
Corequisites: None
This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting. (Sp. S. F.)

COS 125 Esthetics Concepts II (2 0 2)
Prerequisites: COS 119 and COS 120
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. (Sp. S. F.)

COS 126 Esthetics Salon II (0 18 6)
Prerequisites: None
Corequisites: None
This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology licensing examination for Estheticians. (F. Sp.)

COS 222 Manicure/Nail Technology II (4 6 6)
Prerequisites: COS 121
Corequisites: None
This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations. (Sp. S. F.)

COS 223 Contemporary Hair Coloring (1 3 2)
Prerequisites: COS 111 and COS 112
Corequisites: None
This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems. (Sp. F.)

COS 224 Trichology and Chemistry (1 3 2)
Prerequisites: None
Corequisites: None
This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair. (Sp. F.)

COS 225 Advanced Contemporary Hair Coloring (1 3 2)
Prerequisites: COS 223
Corequisites: None
This course covers advanced techniques in coloring applications and problem solving situations. Topics include removing unwanted color, replacing pigment and re-coloring, removing coating, covering gray and white hair, avoiding color fading, and poor tint results. Upon completion, students should be able to apply problem-solving techniques in hair coloring situations. (Sp. F.)

COS 240 Contemporary Design (1 3 2)
Prerequisites: COS 111 and COS 112
Corequisites: None
This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design. (Sp. F.)

COS 250 Computerized Salon Ops (1 0 1)
Prerequisites: None
Corequisites: None
This course introduces computer and salon software. Emphasis is placed on various computer and salon software applications. Upon completion, students should be able to utilize computer skills and software applications in the salon setting. (Sp. F.)

COS 251 Manicure Instructor Concepts (8 0 8)
Prerequisites: None
Corequisites: None
This course introduces manicuring instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervision techniques, and assess student classroom performance. (Sp. F.)

COS 252 Manicure Instructor Practicum (0 15 5)
Prerequisites: None
Corequisites: COS 251
This course covers supervisory and instructional skills for teaching manicuring students in a laboratory setting. Topics include demonstrations of services, supervision, student assessment, and other related topics. Upon completion, students should be able to demonstrate competence in the areas covered by the Manicuring Instructor Licensing Examination and meet program completion requirements. (Sp. F.)

COS 253 Esthetics Instructor Concepts I (6 15 11)
Prerequisites: None
Corequisites: None
This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting. (Sp. F.)

COS 254 Esthetics Instructor Concepts II (6 15 11)
Prerequisites: None
Corequisites: None
This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements. (Sp. F.)

COS 271 Instructor Concepts I (5 0 5)
Prerequisites: None
Corequisites: COS 272
This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student performance in a classroom setting. (Sp. F.)

COS 272 Instructor Practicum I (0 21 7)
Prerequisites: None
Corequisites: COS 271
This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student. (Sp. F.)

COS 273 Instructor Concepts II (5 0 5)
Prerequisites: COS 271 and COS 272
Corequisites: COS 274
This course covers advanced cosmetology instructional concepts. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to develop lesson plans, demonstrate supervision techniques, assess student performance in a classroom setting, and keep accurate records. (Sp. F.)

COS 274 Instructor Practicum II (0 21 7)
Prerequisites: COS 271 and COS 272
Corequisites: COS 273
This course is designed to develop supervisory and instructional skills for teaching advanced cosmetology students in a laboratory setting. Topics include practical demonstrations, supervision, and advanced student assessment. Upon completion, students should be able to demonstrate competence in the areas covered by the Instructor Licensing Examination and meet program completion requirements. (Sp. F.)

COMPUTER SCIENCE

CSC 134 C++ Programming (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

CSC 139 Visual BASIC Programming (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (Sp.)

CSC 234 Advanced C++ Programming (2 3 3)
Prerequisites: CSC 134
Corequisites: None
This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, subprograms, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. (Sp.)

CSC 239 Advanced Visual BASIC Programming (2 3 3)
Prerequisites: CSC 139
Corequisites: None
This course is a continuation of CSC 139 using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment. (F.)

CSC 289 Programming Capstone Project (1 4 3)
Prerequisites: CTS 285
Corequisites: None
This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation. (Sp.)

CONSTRUCTION

CST 111 Construction I (3 3 4)
Prerequisites: None
Corequisites: None
This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing. (F. Sp.)

CST 112 Construction II (3 3 4)
Prerequisites: CST 111
Corequisites: None
This course covers building methods and materials used to dry-in a building. Topics include safety, ceiling/roof framing applications, roof finishes, windows, and exterior doors. Upon completion, students should be able to safely erect different roof types and properly install windows and exterior doors, roofing, and exterior finish materials. (F. Sp.)

CST 113 Construction III (3 3 4)
Prerequisites: CST 112
Corequisites: None
This course covers building methods and materials used to complete the interior of a structure. Topics include safety, installation of thermal and acoustical barriers, and interior finishes including millwork, cabinets, interior doors, flooring, and wall treatments. Upon completion, students should be able to safely and accurately install interior treatments including insulation, paneling, drywall, molding, doors, flooring, and cabinetry. (F. Sp.)

CST 131 OSHA/Safety/Certification (2 2 3)
Prerequisites: None
Corequisites: None
This course covers the concepts of work site safety. Topics include OSHA regulations, tool safety, and certifications which relate to the construction industry. Upon completion, students should be able to identify and maintain a safe working environment based on OSHA regulations and maintain proper records and certifications. (Sp.)

CST 211 Construction Surveying (2 3 3)
Prerequisites: MAT 121 or MAT 171
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. (F. Sp.)

CST 221 Statics/Structures (3 3 4)
Prerequisites: ARC 112 or CAR 112 or CST 112 and MAT 110 or MAT 121 or MAT 171
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. (F.)

CST 244 Sustainable Building Design (2 3 3)
Prerequisites: None
Corequisites: None
This course is designed to increase student knowledge about integrating sustainable design principles and green building technologies into mainstream residential construction practices. Emphasis is placed on reducing negative environmental impact and improving building performance, indoor air quality and the comfort of a building's occupants. Upon completion, students should be able to identify principles of green building, environmental efficiency and conservation of natural resources in relation to basic construction practices. (F. Sp.)

CST 251 Electrical Wiring Systems (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces residential and commercial electrical wiring systems. Topics include safety, care and use of tools and materials, use of NEC, circuit planning, over current protection, and installation of conduits, cables, and conductors. Upon completion, students should be able to correctly identify tools, materials, and procedures for electrical installation. (Sp.)

COMPUTER TECHNOLOGY INFORMATION

CTI 110 Web, Pgm, & Db Foundation (2 2 3)
Prerequisites: None
Corequisites: None
This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table. (F.)

CTI 120 Network & Sec Foundation (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols. (F.)

COMPUTER INFORMATION TECHNOLOGY

CTS 115 Information Systems Business Concepts (3 0 3)
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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

CTS 120 Hardware/Software Support (2 3 3)
Prerequisites: None
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. (Sp.)

CTS 125 Presentation Graphics (2 2 3)
Prerequisites: CIS 110
Corequisites: None
This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text, graphics, audio and video. Upon completion, students should be able to design and demonstrate an effective presentation. (Sp.)

CTS 130 Spreadsheet (2 2 3)
Prerequisites: None
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. (F. Sp. S.)

CTS 155 Technical Support Functions (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems. (Sp.)

CTS 217 Computer Training Support (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces computer training and support techniques. Topics include methods of adult learning, training design, delivery, and evaluation, creating documentation, and user support methods. Upon completion, students should be able to design and implement training and provide continued support for computer users. (F.)

CTS 240 Project Management (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces computerized project management software. Topics include identifying critical paths, cost management, and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately. (F.)

CTS 285 Systems Analysis & Design (3 0 3)
Prerequisites: CIS 115
Corequisites: None
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/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. (F.)

CTS 289 System Support Project (1 4 3)
Prerequisites: CTS 285
Corequisites: None
This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation. (Sp.)

DATABASE MANAGEMENT

DBA 110 Database Concepts (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms. (Sp. S.)

DESIGN DRAFTING

DDF 211 Design Process I (1 6 4)
Prerequisites: None
Corequisites: None
This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product. (F.)

DDF 221 Design Drafting Project (0 4 2)
Prerequisites: DFT 111, DFT 112, and DFT 151
Corequisites: None
This course incorporates ideas from concept to final design. Topics include reverse engineering, design for manufacturability, and mock-up construction. Upon completion, students should be able to generate working drawings and models based on physical design parameters. (Sp.)

DESIGN CREATIVE

DES 135 Prin & Elem of Design I (2 4 4)
Prerequisites: None
Corequisites: None
This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application. (F.)

DRAFTING

DFT 111 Technical Drafting I (1 3 2)
Prerequisites: None
Corequisites: DFT 111A (Local)
This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices. (F.)

DFT 111A Technical Drafting I Lab (0 3 1)
Prerequisites: None
Corequisites DFT 111
This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111. (F.)

DFT 112 Technical Drafting II (1 3 2)
Prerequisites: DFT 111
Corequisites: DFT 112A (Local)
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings. (Sp.)

DFT 112A Technical Drafting II Lab (0 3 1)
Prerequisites: DFT 111/111A (Local)
Corequisites DFT 112
This course provides a laboratory setting to enhance advanced drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112. (Sp.)

DFT 121 Introduction to Geometric Dimensioning & Tolerancing (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings. (S.)

DFT 151 CAD I (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing. (F.)

DFT 152 CAD II (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings. (Sp.)

DFT 153 CAD III (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data. (F.)

DFT 154 Introduction Solid Modeling (2 3 3)
Prerequisites: None
Corequisites: None
This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models and creation of multiview drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multiview drawing. (F. Sp.)

DFT 170 Engineering Graphics (2, 2, 3)
Prerequisites: None
Corequisites: None
This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.*

DFT 231 Jig and Fixture Design (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture. (F. Sp.)

DEVELOPMENTAL MATH

Initial student placement in MAT 050 and DMA courses is based on the Placement Guidelines. Students should begin developmental math courses at the appropriate level indicated by placement test scores.

MAT 050 Basic Math Skills (3 2 4)*
Prerequisites: None
Corequisites: None
This course is designed to strengthen basic math skills. Topics include properties, rounding, estimating, comparing, converting, and computing whole numbers, fractions, and decimals. Upon completion, students should be able to perform basic computations and solve relevant mathematical problems. (F. Sp.)

DMA 010 Operations With Integers (0.75 0.50 1)*
Prerequisites: Satisfactory Placement Test Score or MAT 050
Corequisites: None
This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions. (F. Sp. S.)

DMA 020 Fractions and Decimals (0.75 0.50 1)*
Prerequisites: DMA 010
Corequisites: None
This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals. (F. Sp. S.)

DMA 030 Proportion/Ratio/Rate/Percent (0.75 0.50 1)*
Prerequisites: DMA 010 and DMA 020
Corequisites: None
This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems. (F. Sp. S.)

DMA 040 Expressions/Linear Equations/ Inequalities (0.75 0.50 1)*
Prerequisites: DMA 010 through DMA 030
Corequisites: None
This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities. (F. Sp. S.)

DMA 050 Graphs/Equations of Lines (0.75 0.50 1)*
Prerequisites: DMA 010 through DMA 040
Corequisites: None
This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables. (F. Sp. S.)

DMA 060 Polynomial/Quadratic Applications (0.75 0.50 1)*
Prerequisites: DMA 010 through DMA 050
Corequisites: None
This course provides a study of problems involving algebraic representations of quadratic equations. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications. (F. Sp. S.)

DMA 070 Rational Expressions/Equations (0.75 0.50 1)*
Prerequisites: DMA 010 through DMA 060
Corequisites: None
This course provides a study of problems involving algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications. (F. Sp. S.)

DMA 080 Radical Expressions/Equations (0.75 0.50 1)*
Prerequisites: DMA 010 through DMA 070
Corequisites: None
This course provides a study of problems involving algebraic representations of the manipulation of radical expressions and the application of radical equations. Topics include simplifying and performing operations with radical expressions and rational exponents, solving radical equations, and determining the reasonableness of a solution. Upon completion, students should be able to find algebraic solutions to contextual problems with radical applications. (F. Sp. S.)

*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification as a full-time student.

DEVELOPMENTAL ENGLISH

Initial student placement in DRE courses is based on the Placement Guidelines. Students should begin developmental English courses at the appropriate level indicated by placement test scores.

DRE 096 Integrated Reading and Writing (2.50 1 3)*
Prerequisites: Placement Score
Corequisites: None
This course develops proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile® range of 860 to 1010. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs. (F. Sp.)

DRE 097 Integrated Reading Writing II (2.50 1 3)*
Prerequisites: DRE 096
Corequisites: None
This course develops proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile® range of 960 to 1115. Upon completion, students should be able to demonstrate and apply those skills toward understanding a variety of complex academic and career texts and composing essays incorporating relevant, valid evidence. (F. Sp.)

DRE 098 Integrated Reading Writing III (2.50 1 3)*
Prerequisites: DRE 097
Corequisites: None
This course develops proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught using texts primarily in the Lexile® range of 1100 to 1320 in order to prepare students to be career and college ready. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. (F. Sp. S.)

*These credits are institutional credits only and cannot be used for graduation. They are used for determining hour load for payment, eligibility for financial aid, or classification as a full-time student.

ECONOMICS

ECO 251 Principles of Microeconomics (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces economic analysis of individuals, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp.)

ECO 252 Principles of Macroeconomics (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp.)

EDUCATION

EDU 118 Principles and Practices of Instructional Assistant (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers the instructional assistant's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills, and identification of the optimal learning environment. Upon completion, students should be able to describe the supporting role of the instructional assistant, demonstrate positive communication skills, and discuss educational philosophy. (F. Sp.)

EDU 119 Introduction to Early Childhood Education (4 0 4)
Prerequisites: None
Corequisites: None
This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children. (F. Sp.)

EDU 131 Child, Family, and Community (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children. (F. Sp.)

EDU 144 Child Development I (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. (F.)

EDU 145 Child Development II (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. (F. Sp.)

EDU 146 Child Guidance (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/ acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors. (F. Sp.)

EDU 151 Creative Activities (3 0 3)
Prerequisites: None
Corequisites: DRE 097
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 dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments. (F.)

EDU 153 Health, Safety and Nutrition (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations. (F. Sp.)

EDU 154 Social, Emotional and Behavioral Development (3 0 3)
Prerequisites: (EDU 144 and EDU 145) or (PSY 244 and PSY 245)
Corequisites: DRE 097
This course covers the emotional/social development of children and the causes, expressions, prevention and management of challenging behaviors in all children. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and intervention strategies. Upon completion, students should be able to identify factors influencing emotional/ social development, utilizing screening measures, and designing positive behavioral supports. (F. Sp.)

EDU 161 Introduction to Exceptional Children (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers children with exceptionalities as life long learners within the context of the community, school and family. Emphasis is placed on inclusion, legal, social/political, environmental, and cultural issues relating to the teaching of children with exceptionalities. Upon completion, students should be able to demonstrate knowledge of identification processes, inclusive techniques, and professional practices and attitudes. (F. Sp.)

EDU 163 Classroom Management & Instruction (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success. (F. Sp.)

EDU 175 Introduction to Trade and Industrial Education (3 0 3)
Prerequisites: None
Corequisites: DRE 097
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. (F. Sp. S.)

EDU 176 Occupational Analysis and Course Development (3 0 3)
Prerequisites: None
Corequisites: DRE 097
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. (F. Sp. S.)

EDU 177 Instructional Methods (2 2 3)
Prerequisites: None
Corequisites: DRE 097
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. (F. Sp. S.)

EDU 179 Vocational Student Organization (3 0 3)
Prerequisites: None
Corequisites: DRE 097
This course covers planning and organizing vocational youth clubs by understanding the structure and operating procedures to use club activities for personal and professional growth. Topics include self-assessment to set goals, club structure, election and installation of officers, club activities, function of committees, running meetings, contest preparation, and leadership skills. Upon completion students should be able to set personal goals, outline club structure, elect and install officers. (F. Sp. S.)

EDU 184 Early Childhood Introduction Practicum (1 3 2)
Prerequisites: EDU 119 Corequisites: DRE 097
This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children; and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits. (F. Sp. S.)

EDU 185 Cognitive and Language Act (3 0 3)
Prerequisites: None
Corequisites: DRE 097
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. (Sp.)

EDU 214 Early Childhood Intermediate Practicum (1 9 4)
Prerequisites: EDU 119, (EDU 144 or PSY 244), EDU 146
Corequisites: DRE 098
This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting with the implementation of developmentally appropriate activities and environments for all children; modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits. (F. Sp.)

EDU 221 Children with Exceptional (3 0 3)
Prerequisites: (EDU 144 and EDU 145) or (PSY 244 and PSY 245)
Corequisites: DRE 098
This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice. (F. Sp.)

EDU 223 Specific Learning Disability (3 0 3)
Prerequisites: (EDU 144 and EDU 145) or (PSY 244 and PSY 245)
Corequisites: DRE 098
This course provides a comprehensive study of characteristics, alternative assessments, teaching strategies, placement options, inclusion, and family intervention for children with specific learning disabilities. Topics include causes, assessment instruments, learning strategies, and collaborative/inclusion methods for children with specific learning disabilities. Upon completion, students should be able to assist in identifying, assessing, and providing educational interventions for children with specific learning disabilities and their families. (F. Sp.)

EDU 234 Infants, Toddlers, and Twos (3 0 3)
Prerequisites: EDU 119
Corequisites: DRE 098
This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/twos development, plan/select activities/materials, and partner with diverse families. (F. Sp.)

EDU 243 Learning Theory (3 0 3)
Prerequisites: None
Corequisites: DRE 098
This course provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning and discuss the relationship between different types of intelligence to learning motivation. (F.)

EDU 244 Human Growth/Development (3 0 3)
Prerequisites: None
Corequisites: DRE 098
This course introduces lateral entry teachers to theories and ages and stages related to human growth and development from birth through adolescence. Emphasis is placed on development through the stages of a child's life in the areas of physical, emotional, social, intellectual, and moral development. Upon completion, students should be able to identify and describe milestones of each stage in all areas of development and discuss factors that influence growth. (Sp.)

EDU 245 Policies and Procedures (3 0 3)
Prerequisites: None
Corequisites: DRE 098
This course is designed to introduce new lateral entry teachers to the policies and procedures established by the local education agency. Topics include emergency situation procedures, acceptable discipline, chain of command, role of mentors, evaluation procedures, employment requirements, dress codes, and other policies and procedures. Upon completion, students should be able to explain the policies and procedures to students, parents, or others and discuss the purpose of each policy category. (Sp.)

EDU 248 Developmental Delays (3 0 3)
Prerequisites: (EDU 144 and EDU 145) or (PSY 244 and PSY 245)
Corequisites: DRE 098
This course covers the causes and assessment of developmental delays and individualized instruction and curriculum for children with developmental delays. Emphasis is placed on definition, characteristics, assessment, educational strategies, inclusion, family involvement, and services for children with developmental delays. Upon completion, students should be able to identify, assess, and plan educational intervention strategies for children with developmental delays and their families. (F. Sp.)

EDU 252 Math and Science Activities (3 0 3)
Prerequisites: None
Corequisites: DRE 098
This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials. (F. Sp.)

EDU 254 Music and Movement for Child (1 2 2)
Prerequisites: None
Corequisites: DRE 098
This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children. (F. Sp.)

EDU 259 Curriculum Planning (3 0 3)
Prerequisites: EDU 119
Corequisites: DRE 098
This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children's development, critique curriculum, plan for individual and group needs, and assess and create quality environments. (F. Sp.)

EDU 261 Early Childhood Administration I (3 0 3)
Prerequisites: None
Corequisites: DRE 098 and EDU 119
This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards. (F. Sp.)

EDU 262 Early Childhood Administration II (3 0 3)
Prerequisites: EDU 261
Corequisites: DRE 098 and EDU 119
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs. (F. Sp.)

EDU 271 Educational Technology (2 2 3)
Prerequisites: None
Corequisites: DRE 098
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. (F. Sp.)

EDU 280 Language and Literacy Experience (3 0 3)
Prerequisites: None
Corequisites: DRE 098
This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences. (F. Sp.)

EDU 281 Instructor Strategies: Reading and Writing (2 2 3)
Prerequisites: None
Corequisites: DRE 098
This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study. (F. Sp.)

EDU 284 Early Childhood Capstone Practicum (1 9 4)
Prerequisites: EDU 119, (EDU 144 or PSY 244), (EDU 145 or PSY 245), EDU 146, EDU 151, EDU 184 (Local), EDU 214 (Local)
Corequisites: DRE 098
This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits. *This course is required in the student's last semester (Local).* (F. Sp.)

EDU 285 Internship Experience-School Age (1 9 4)
Prerequisites: (EDU 144 or PSY 244), (EDU 145 or PSY 245), (EDU 118 or EDU 216), and EDU 163
Corequisites: DRE 098
This course is designed to allow students to apply skills in a quality public or private school environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors as indicated by assignments and onsite faculty visits. (F. Sp.)

EDU 289 Advanced Issues/School Age (2 0 2)
Prerequisites: None
Corequisites: DRE 098
This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers/teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations. (F. Sp.)

ENGINEERING

EGR 110 Introduction to Engineering Technology (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals. (F.)

EGR 150 Intro to Engineering (1, 2, 2)
Prerequisites: None
Corequisites: None
This course is an overview of the engineering profession. Topics include career opportunities, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, micro-computers in engineering. Upon completion, students will have a better understanding of the engineering process and profession. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.*

EGR 250 Statics/Strength of Mater (4 3 5)
Prerequisites: MAT 121 or MAT 171
Corequisites: None
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures. (F. Sp.)

EGR 285 Design Project (0 4 2)
Prerequisites: None
Corequisites: None
This course provides the opportunity to design an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects. (Sp.)

ELECTRICAL

ELC 111 Introduction to Electricity (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment. (F.)

ELC 112 DC/AC Electricity (3 6 5)
Prerequisites: None
Co-requisites: None
This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits. (F.)

ELC 113 Residential Wiring (2 6 4)
Prerequisites: None
Corequisites: None
This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print 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 residential electrical installations. (F.)

ELC 114 Commercial Wiring (2 6 4)
Prerequisites: None
Co-requisites: None
This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial 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 commercial electrical installations. (Sp.)

ELC 115 Industrial Wiring (2 6 4)
Prerequisites: None
Corequisites: None
This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment. (S.)

ELC 117 Motors and Controls (2 6 4)
Prerequisites: None
Corequisites: None
This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits. (Sp.)

ELC 118 National Electrical Code (1 2 2)
Prerequisites: None
Corequisites: None
This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC. (F.)

ELC 119 NEC Calculations (1 2 2)
Prerequisites: None
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. (Sp.)

ELC 127 Software for Technicians (1 3 2)
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. (Sp.)

ELC 128 Introduction to Programmable Logic Controller (PLC) (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/ installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs. (F.)

ELC 132 Electrical Drawings (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching, orthographic views and dimensions, and print reading. Upon completion, students should be able to interpret technical documents and prints and use basic drafting skills to prepare usable field drawings. (F. Sp.)

ELC 135 Electrical Machines (2 2 3)
Prerequisites: None
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. (Sp.)

ELC 138 DC Circuit Analysis (3 3 4)
Prerequisites: None
Corequisites: None
This course introduces DC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC 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, and analyze DC circuits; and properly use test equipment. (F.)

ELC 139 AC Circuit Analysis (3 3 4)
Prerequisites: None
Corequisites: None
This course introduces AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include AC voltages, circuit analysis laws and theorems, reactive components and circuits, transformers, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret AC circuit schematics; analyze and troubleshoot AC circuits; and properly use test equipment. (Sp.)

ELC 220 Photovoltaic Sys Tech (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications. (F.)

ELC 221 Adv PV Sys Designs (2 3 3)
Prerequisites: ELC 220
Corequisites: None
This course introduces specific elements in photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems. (Sp.)

ELC 228 Programmable Logic Controller (PLC) Applications (2 6 4)
Prerequisites: ELC 128 (Local)
Corequisites: 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. (Sp.)

ELC 229 Applications Project (1 3 2)
Prerequisites: None
Corequisites: None
This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project. (Sp.)

ELC 231 Electric Power Systems (3 2 4)
Prerequisites: ELC 112 (Local) or ELC 139 (Local)
Corequisites: None
This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and compare different types and sizes of circuit protection devices. (F.)

ELC 233 Energy Management (2 2 3)
Prerequisites: ELC 231 (Local)
Corequisites: None
This course covers energy management principles and techniques typical of those found in industry and commercial facilities, including load control and peak demand reduction systems. Topics include load and peak demand calculations, load shedding, load balance and power factor, priority scheduling, remote sensing and control, and supplementary/alternative energy sources. Upon completion, students should be able to determine energy management parameters, calculate demand and energy use, propose energy management procedures, and implement alternative energy sources. (Sp.)

ELECTRONICS

ELN 131 Analog Electronics I (3 3 4)
Prerequisites: ELC 112 (Local) or ELC 138 (Local)
Co-requisites: None
This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment. (Sp.)

ELN 133 Digital Electronics (3 3 4)
Prerequisites: None
Corequisites: None
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (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. (F.)

ELN 152 Fabrication Techniques (1 3 2)
Prerequisites: None
Corequisites: None
This course covers the fabrication methods required to create a prototype product from the initial circuit design. Topics include CAD, layout, sheet metal working, component selection, PC board layout and construction, reverse engineering, soldering, and other related topics. Upon completion, students should be able to design and construct an electronic product with all its associated documentation. (S.)

ELN 229 Industrial Electronics (3 3 4)
Prerequisites: ELC 112 (Local)
Corequisites: None
This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to construct and/or troubleshoot these devices for proper operation in an industrial electronic circuit. (Sp.)

ELN 231 Industrial Controls (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery. (S.)

ELN 232 Introduction to Microprocessors (3 3 4)
Prerequisites: None
Corequisites: None
This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment. (Sp.)

ELN 233 Microprocessor Systems (3 3 4)
Prerequisites: ELN 232 (Local)
Corequisites: None
This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment. (S.)

EMERGENCY MEDICAL SCIENCE

EMS 110 EMT-Basic (5 6 0 7)
Prerequisites: None
Corequisites: None
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT-Basic certification. (on demand)

EMS 122 EMS Clinical Practicum I (0 0 3 1)
Prerequisites: EMS 110
Corequisites: EMS 130
This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competence with fundamental paramedic level skills. (on demand)

EMS 130 Pharmacology I for EMS (1 3 0 2)
Prerequisites: EMS 110
Corequisites: EMS 122
This course introduces the fundamental principles of pharmacology and medication administration and is required for intermediate and paramedic certification. Topics include terminology, pharmacokinetics, pharmacodynamics, weights, measures, drug calculations, legislation, and administration routes. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology. (on demand)

EMS 131 Adv Airway Management (1 2 0 2)
Prerequisites: EMS 110
Corequisites: None
This course is designed to provide advanced airway management techniques and is required for intermediate and paramedic certification. Topics include respiratory anatomy and physiology, airway, ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance. (on demand)

EMS 140 Rescue Scene Management (1 3 0 2)
Prerequisites: None
Corequisites: None
This course introduces rescue scene management and is required for paramedic certification. Topics include response to hazardous material conditions, medical incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment. (F.)

EMS 150 Emerg Vehicles & EMS Comm (1 3 0 2)
Prerequisites: None
Corequisites: None
This course examines the principles governing emergency vehicles, maintenance of emergency vehicles, and EMS communication equipment and is required for paramedic certification. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance, and communication needs. (on demand)

EMS 160 Cardiology I (1 3 0 2)
Prerequisites: EMS 110
Corequisites: None
This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and basic rhythm interpretation in the monitoring leads. Upon completion, students should be able to recognize and interpret basic rhythms. (on demand)

EMS 220 Cardiology (2 6 0 4)
Prerequisites: EMS 122, EMS 130, and EMS 160
Corequisites: None
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, rhythm interpretation, cardiac pharmacology, and patient treatment. Upon completion, students should be able to certify at the Advanced Cardiac Life Support Provider level utilizing American Heart Association guidelines. (on demand)

EMS 221 EMS Clinical Practicum II (0 0 9 3)
Prerequisites EMS 121, EMS 122, and EMS 130
Corequisites None
This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care. (on demand)

EMS 231 EMS Clinical Pract III (0 0 9 3)
Prerequisites: EMS 221 and EMS 130
Corequisites: None
This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care. (on demand)

EMS 235 EMS Management (2 0 0 2)
Prerequisites: None
Corequisites: None
This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems. (F.)

EMS 240 Special Needs Patients (1 2 0 2)
Prerequisites: EMS 122 and EMS 130
Corequisites: None
This course includes concepts of crisis intervention and techniques of dealing with special needs patients and is required for paramedic certification. Topics include behavioral emergencies, abuse, assault, challenged patients, personal well-being, home care, and psychotherapeutic pharmacology. Upon completion, students should be able to recognize and manage frequently encountered special needs patients. (on demand)

EMS 241 EMS Clinical Practicum IV (0 0 9 3)
Prerequisites: EMS 130 and EMS 231
Corequisites: None
This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic. (on demand)

EMS 250 Adv. Medical Emergencies (2 3 0 3)
Prerequisites: EMS 122 and EMS 130
Corequisites: None
This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include pulmonology, neurology, endocrinology, anaphylaxis, gastroenterology, toxicology, and environmental emergencies integrating case presentation and emphasizing pharmacotherapeutics. Upon completion, students should be able to recognize and manage frequently encountered medical conditions based upon initial patient impression. (on demand)

EMS 260 Advanced Trauma Emergencies (1 3 0 2)
Prerequisites: EMS 122 and EMS 130
Corequisites: None
This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include hemorrhage control, shock, burns, and trauma to head, spine, soft tissue, thoracic, abdominal, and musculoskeletal areas with case presentations utilized for special problems situations. Upon completion, students should be able to recognize and manage trauma situations based upon patient impressions and should meet requirements of BTLS or PHTLS courses. (on demand)

EMS 270 Life Span Emergencies (2 2 0 3)
Prerequisites: EMS 122 and EMS 130
Corequisites: None
This course, required for paramedic certification, covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies and certify at the Pediatric Advanced Life Support Provider level. (on demand)

EMS 285 EMS Capstone (1 3 0 2)
Prerequisites: EMS 220, EMS 250, and EMS 260
Corequisites: None
This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events. (on demand)

ENGLISH

ENG 101 Applied Communications I (3 0 3)
Prerequisites: None
Corequisites: None
This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. *This is a diploma-level course.* (on demand)

ENG 111 Writing and Inquiry (3 0 3)
Prerequisites: DRE 098 or satisfactory placement test scores
Corequisites: None
This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in English composition.* (F. Sp. S.)

ENG 112 Writing/Research in the Disc (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course is also available through the Virtual Learning Community (VLC).* (F. Sp. S.)

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 analyze and interpret literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

ENG 232 American Literature II (3 0 3)
Prerequisites: ENG 112, ENG 113, or ENG 114
Corequisites: None
This course covers selected works in American literature from 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 analyze and interpret literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

ENG 241 British Literature I (3 0 3)
Prerequisites: ENG 112, ENG 113, or ENG 114
Corequisites: None
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F.)

ENG 242 British Literature II (3 0 3)
Prerequisites: ENG 112, ENG 113, or ENG 114
Corequisites: None
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (Sp.)

ENG 261 World Literature I (3 0 3)
Prerequisites: ENG 112, ENG 113, or ENG 114
Corequisites: None
This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

ENG 262 World Literature II (3 0 3)
Prerequisites: ENG 112, ENG 113, or ENG 114
Corequisites: None
This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

ENTREPRENEURSHIP

ETR 220 Innovation and Creativity (3 0 3)
Prerequisites: None
Corequisites: None
This course provides a study of developing and enhancing individual and organizational creativity and innovation. Topics include that innovation needs to be applied to products, services, and processes to increase competitive advantages and add value to businesses. Upon completion, students should be able to apply innovation and creativity principles in the work place. (F.)

ETR 230 Entrepreneur Marketing (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the techniques to correctly research and define the target market to increase sales for start up businesses or to expand current businesses. Topics include how to target market and meet customers' needs with a limited budget in the early stages of the life of a start up business. Upon completion, students should be able to demonstrate an understanding of how to correctly target market for a start-up business with limited resources. (Sp.)

ETR 240 Funding for Entrepreneurs (3 0 3)
Prerequisites: ACC 120
Corequisites: None
This course provides a focus on the financial issues and needs confronting entrepreneurs attempting to grow their businesses by attracting startup and growth capital. Topics include sources of funding including: angel investors, venture capital, IPO's, private placement, banks, suppliers, buyers, partners, and the government. Upon completion, students should be able to demonstrate an understanding of how to effectively finance a business venture. (Sp.)

ETR 270 Entrepreneurship Issues (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces current and emerging entrepreneurship issues and opportunities. Topics include franchising, import/export, small business taxes, legal structures, negotiations, contract management, and time management. Upon completion, students should be able to apply a variety of analytical and decision-making requirements to start a new business. (on demand)

ELECTRIC UTILITY SUBSTATION

EUS 110 Intro to Elect Util Ind (3 3 4)
Prerequisites: None
Corequisites: None
This course provides the student with an overview of the electric (power) utility industry. Topics include electric utility regulation and its scope, regulatory agencies and codes, electrical safety, electric system overview, electric generation, electric transmission, and electric distribution. Upon completion, students should be able to understand the need for electric utilities, their structure, and regulatory requirements on electric utilities. (F.)

EUS 130 Elect Util Print Reading (3 2 4)
Prerequisites: EUS 110
Corequisites: None
This course introduces the basic principles of reading electrical drawings used in the utility industry. Topics include functional diagrams, AC and DC control schematics, wiring diagrams, control wiring diagrams, and logic diagrams. Upon completion, the student should be able to explain the purpose and function of the various circuits and components in each type of electrical drawing. (Sp.)

FILM AND VIDEO PRODUCTION

FVP 227 Multimedia Production (2 3 3)
Prerequisites: None
Corequisites: None
This course covers technical terms used in the multimedia industry and introduces skills related to digital manipulation of audio and video materials. Emphasis is placed on technical terms used in multimedia work and integration of sound, video, graphics, and text into a single production. Upon completion, students should be able to define technical terms in multimedia work and work with a variety of computer hardware and software. (Sp.)

GEOGRAPHY

GEO 111 World Regional Geography (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp.)

GRAPHIC DESIGN

GRD 110 Typography I (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements. (F. Sp.)

GRD 121 Drawing Fundamentals I (1 3 2)
Prerequisites: None
Corequisites: None
This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works. (Sp.)

GRD 131 Illustration I (1 3 2)
Prerequisites: ART 131 or DES 125 or GRD 121
Corequisites: None
This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork. (F. Sp. S.)

GRD 132 Illustration II (1 3 2)
Prerequisites: GRD 131
Corequisites: None
This course is a continuation of GRD 131. Topics include editorial, product, fashion, and advertising illustrations. Upon completion, students should be able to demonstrate increased proficiency in creating quality illustrations from conceptualization through finished artwork. (F. Sp. S.)

GRD 133 Illustration III (1 3 2)
Prerequisites: GRD 132
Corequisites: None
This course is designed to strengthen visual techniques and conceptual approaches to illustration. Emphasis is placed on advanced rendering techniques, requirements, and limitations. Upon completion, students should be able to create comprehensive illustrations that meet client/printer requirements. (F. Sp. S.)

GRD 141 Graphic Design I (2 4 4)
Prerequisites: None
Corequisites: None
This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects. (F.)

GRD 142 Graphic Design II (2 4 4)
Prerequisites: DES 135 or GRD 141 or ART 121
Corequisites: None
This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects. (Sp.)

GRD 151 Computer Design Basics (1 4 3)
Prerequisites: None
Corequisites: None
This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool. (F. Sp.)

GRD 152 Computer Design Technology I (1 4 3)
Prerequisites: GRD 151
Corequisites: None
This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work. (F. Sp.)

GRD 153 Computer Design Technology II (1 4 3)
Prerequisites: GRD 152
Corequisites: None
This course covers advanced theories and practices in the field of computer design. Emphasis is placed on advanced use of color palettes, layers, and paths. Upon completion, students should be able to creatively produce designs and articulate their rationale. (F. Sp.)

GRD 160 Photo Fundamentals I (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality. (F. Sp.)

GRD 161 Photo Fundamentals II (1 4 3)
Prerequisites: GRD 160
Corequisites: None
This course is a continuation of GRD 160. Topics include conversions, toning, color, specialized equipment, lighting, processing, and other methods and materials. Upon completion, students should be able to demonstrate proficiency in producing photographic prints. (F. Sp.)

GRD 162 Photography Portfolio (1 4 3)
Prerequisites: GRD 161
Corequisites: None
This course provides an opportunity to develop a portfolio through research and review of previous photographic works. Topics include visual communication skills and presentation of works. Upon completion, students should be able to prepare and present a portfolio of their photographic works. (F. Sp.)

GRD 167 Photographic Imaging I (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces basic camera operations and photographic production. Topics include subject composition, depth of field, shutter control, light control, color, photo-finishing, and digital imaging, correction and output. Upon completion, students should be able to produce traditional and/or digital photographic prints with acceptable technical and compositional quality. (F. Sp.)

GRD 168 Photographic Imaging II (1 4 3)
Prerequisites: GRD 167
Corequisites: None
This course introduces advanced camera operations and photographic production. Topics include lighting, specialized equipment, digital image correction and output, and other methods and materials. Upon completion, students should be able to demonstrate proficiency in producing high quality photographic prints. (F. Sp.)

GRD 210 Airbrush I (1 2 2)
Prerequisites: None
Corequisites: None
This course covers the mechanics of airbrushing. Topics include care and maintenance of equipment, spraying techniques and surfaces, and selection of materials. Upon completion, students should be able to produce work demonstrating competent use of an airbrush. (F. Sp.)

GRD 233 Product Illustration (1 3 2)
Prerequisites: GRD 131 and GRD 152
Corequisites: None
This course covers the rendering and illustration of products for commercial purposes. Topics include viewpoint, styles, media, and subjects such as household, industrial, hardware, and sporting goods. Upon completion, students should be able to illustrate products using traditional line, continuous-tone, and digital media. (F. Sp. S.)

GRD 241 Graphic Design III (2 4 4)
Prerequisites: DES 136 or GRD 142
Corequisites: None
This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving. (Sp.)

GRD 242 Graphic Design IV (2 4 4)
Prerequisites: GRD 241
Corequisites: None
This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction. (Sp.)

GRD 263 Illustrative Imaging (1 4 3)
Prerequisites: GRD 151 or GRA 151
Corequisites: None
This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the 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. (F. Sp.)

GRD 280 Portfolio Design (2 4 4)
Prerequisites: GRD 142 and GRD 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 resume 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. (Sp.)

GRD 281 Design of Advertising (1 3 2)
Prerequisites: None
Corequisites: None
This course explores the origins, roles, scope, forms, and development of advertising. Emphasis is placed on advertising development from idea through production and the interrelationship of marketing to types of advertising, media, and organizational structure. Upon completion, students should be able to produce advertising for various media and demonstrate an understanding of the complexities and relationships involved in advertising design. (F. Sp.)

HEALTH

HEA 110 Personal Health/Wellness (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp. S.)

HEA 112 First Aid and CPR (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

HEA 120 Community Health (3 0 3)
Prerequisites: None
Corequisites: None
This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

HEALTHCARE MANAGEMENT

HMT 110 Intro to Healthcare Mgt (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the functions, practices, organizational structures, and professional issues in healthcare management. Emphasis is placed on planning, controlling, directing, and communicating within health and human services organizations. Upon completion, students should be able to apply the concepts of management within a healthcare service environment. (F.)

HMT 211 Long-Term Care Admin (3 0 3)
Prerequisites: HMT 110
Corequisites: None
This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to administer state and national standards and regulations as they apply to long-term care. (Sp.)

HMT 212 Mgt of Healthcare Org (3 0 3)
Prerequisites: None
Corequisites: None
This course examines current issues affecting the management of healthcare delivery systems. Topics include current problems, changes, and challenges in the healthcare environment. Upon completion, students should be able to identify current health care issues and their impact on healthcare management. (Sp.)

HISTORY

HIS 111 World Civilizations I (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

HIS 112 World Civilizations II (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

HIS 131 American History I (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

HIS 132 American History II (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores
Corequisites: None
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

HORTICULTURE

HOR 150 Intro to Horticulture (2 0 2)
Prerequisites: None
Corequisites: None
This course covers the history, development, and basic techniques of horticulture. Topics include propagation techniques, planting procedures, watering and fertility, plant growth, pest and disease control, and garden design and history. Upon completion, students should be able to demonstrate an understanding of the basic principles of horticulture. (F.)

HOTEL & RESTAURANT MANAGEMENT

HRM 110 Intro to Hosp & Tourism (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the growth and progress of the hospitality industry. Topics include tourism, lodging, resorts, gaming, restaurants, foodservice and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist within the hospitality industry. (F.)

HRM 140 Legal Issues Hospitality (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, relevant torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system and the concepts necessary to prevent or minimize organizational liability. (F.)

HRM 150 Training for Hospitality (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces techniques and methodology involved in developing training programs. Topics include job specification/description and breakdown, current and traditional training methods, coaching, evaluation, and management development. Upon completion, students should be able to produce job specifications, descriptions and breakdowns, and conduct technical training. (Sp.)

HUMANITIES

HUM 110 Technology and Society (3 0 3)
Prerequisites: None
Corequisites: None
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HUM 115 Critical Thinking (3 0 3)
Prerequisites: DRE 098 (L)
Corequisites: None
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp. S.)

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 for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

HUM 122 Southern Culture (3 0 3)
Prerequisites: None
Corequisites: None
This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture. *TThis course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

HUM 130 Myth in Human Culture (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an in-depth study of myths and legends. Topics included the varied sources of myths and their influence ont he individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HUM 170 The Holocaust (3 0 3)
Prerequisites: None
Corequisites: None
This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures, and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political, and economic factors which cumulatively resulted in the Holocaust. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

HUM 211 Humanities I (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HUM 212 Humanities II (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HUM 220 Human Values and Meaning (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HUM 230 Leadership Development (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

HYDRAULICS

HYD 110 Hydraulics/Pneumatics I (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting. (S.)

INDUSTRIAL SCIENCE

ISC 121 Environmental Health and Safety (3 0 3)
Prerequisites: None
Corequisites: None
This course covers workplace environmental health and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety. (F. Sp. S.)

ISC 132 Manufacturer Quality Control (2 3)3
Prerequisites: None
Corequisites: None
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment. (F.)

MACHINING

MAC 114 Introduction to Metrology (2 0 2)
Prerequisites: None
Corequisites: None
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments. (F.)

MAC 121 Introduction to Computer Numerical Controls (CNC) (2 0 2)
Prerequisites: None
Corequisites: None
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage. (F.)

MAC 122 CNC Turning (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers. (F.)

MAC 124 CNC Milling (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers. (F.)

MAC 141 Machining Applications I (2 6 4)
Prerequisites: None
Corequisites: None
This course provides an introduction to a variety of material-working processes that are common to the machining industry. Topics include safety, process-specific machining equipment, measurement devices, set-up and layout instruments, and common shop practices. Upon completion, students should be able to safely demonstrate basic machining operations, accurately measure components, and effectively use layout instruments. (F.)

MAC 141A Machining Appl I Lab (0 6 2)
Prerequisites: None
Corequisites: None
This course provides an introduction to a variety of material-working processes, in a laboratory setting, that are common to the machining industry. Topics include safety, process-specific machining equipment, measurement devices, set-up and layout instruments, and common shop practices. Upon completion, students should be able to safely demonstrate basic machining operations, accurately measure components, and effectively use layout instruments. (F.)

MAC 142 Machining Applications II (2 6 4)
Prerequisites: None
Corequisites: None
This course provides instruction in the wide variety of processes associated with machining. Topics include safety, equipment set-up, holding fixtures, tooling, cutting speeds and depths, metal properties, and proper finishes. Upon completion, students should be able to safely demonstrate advanced machining operations, accurately measure components, and produce accurate components with a proper finish. (Sp.)

MAC 142A Machining Appl II Lab (0 6 2)
Prerequisites: None
Corequisites: None
This course provides laboratory instruction in the wide variety of processes associated with machining. Topics include safety, equipment setup, holding fixtures, tooling, cutting speeds and depths, metal properties, and proper finishes. Upon completion, students should be able to safely demonstrate advanced machining operations, accurately measure components, and produce accurate components with a proper finish. (Sp.)

MAC 151 Machining Calculations (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations. (Sp.)

MAC 222 Advanced CNC Turning (1 3 2)
Prerequisites: MAC 122 (Local)
Corequisites: None
This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers. (Sp.)

MAC 224 Advanced CNC Milling (1 3 2)
Prerequisites: MAC 124 (Local)
Corequisites: None
This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers. (Sp.)

MAC 233 Appl in CNC Machining (2 12 6)
Prerequisites: None
Corequisites: None
This capstone course provides students the opportunity to apply skills learned throughout the curriculum. Emphasis is placed on production of parts and assemblies using modern CNC machine tools. Upon completion, students should be able to manufacture complex parts using a variety of CNC machine tools. (S.)

MAC 234 Adv Multi-Axis Machining (2 3 3)
Prerequisites: None
Corequisites: None
This course includes multi-axis machining using machining centers with multi-axis capabilities. Emphasis is placed on generation of machining center input with a CAM system and setup of pallet changer and rotary system for multi-axis machining fixtures. Upon completion, students should be able to convert CAD to output for multi-axis machining centers, including tooling, setup, and debugging processes. (Sp.)

MAC 234A Adv Multi-Axis Machining Lab (0 3 1)
Prerequisites: None
Corequisites: None
This course covers the application of multi-axis machining using machining centers with multi-axis capabilities. Emphasis is placed on generation of machining center input with a CAM system and setup of pallet changer and rotary system for multi-axis machining fixtures. Upon completion, students should be able to convert CAD to output for multi-axis machining centers, including tooling, setup, and debugging processes. (Sp.)

MAC 241 Jigs & Fixtures I (2 6 4)
Prerequisites: None
Corequisities: None
This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures. (F.)

MASONRY

MAS 140 Introduction to Masonry (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques. (F. Sp.)

MATHEMATICS

MAT 001 Math Skills Support (0 2 1)
Prerequisities: Take One Set:
Set 1: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-060, DMA-070, and DMA-080
Set 2: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and DMA-065
Set 3: MAT-121
Corequisites: MAT 171 (Local)
This course provides opportunities for students to build a stronger foundation for success in their corequisite math course by obtaining skills through a variety of instructional strategies. Emphasis is placed on foundational skills as well as concepts, skills, vocabulary and definitions necessary to master student learning outcomes of the co-requisite math course. Upon completion, students should be able to apply mathematical concepts and critical thinking skills to solve problems relevant to the student's co-requisite math course.

MAT 110 Math Measurement & Literacy (2 2 3)
Prerequisities: DMA-010, DMA-020, and DMA-030
Corequisites: None
This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results. (F. Sp.)

MAT 121 Algebra/Trigonometry I (2 2 3)
Prerequisities: DMA-010, 020, 030, 040, 050, and 060
Corequisites: None
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results. (on demand)

MAT 122 Algebra/Trigonometry II (2 2 3)
Prerequisities: MAT-121
Corequisites: None
This course is designed to cover concepts in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, transformations of functions, Law of Sines, Law of Cosines, vectors, and statistics. Upon completion, students should be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results. (on demand)

MAT 143 Quantitative Literacy (2 2 3)
Prerequisities: DMA 010, 020, 030, 040, 050, and DRE-098
Corequisites: None
This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F. Sp. S.)

MAT 152 Statistical Methods I (3 2 4)
Prerequisities: DMA 010, 020, 030, 040, 050, and DRE-098
Corequisites: None
This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F. Sp. S.)

MAT 171 Precalculus Algebra (3 2 4)
Prerequisities: Take One Set:
Set 1: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-060, DMA-070, and DMA-080
Set 2: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and DMA-065
Set 3: MAT-121
Corequisites: MAT 001 (Local)
This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F. Sp.)

MAT 172 Precalculus Trigonometry (3 2 4)
Prerequisites: MAT 171
Corequisites: None
This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F. Sp.)

MAT 263 Brief Calculus (3 2 4)
Prerequisites: MAT 171
Corequisites: None
This course is designed to introduce concepts of differentiation and integration and their applications to solving problems. Topics include 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 an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (on demand)

MAT 271 Calculus I (3 2 4)
Prerequisites: MAT 172
Corequisites: None
This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (F.)

MAT 272 Calculus II (3 2 4)
Prerequisites: MAT 271
Corequisites: None
This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the 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 select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (Sp.)

MAT 273 Calculus III (3 2 4)
Prerequisites: MAT 272
Corequisites: None
This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in mathematics.* (on demand)

MAT 280 Linear Algebra (2 2 3)
Prerequisites: MAT 271
Corequisites: None
This course provides an introduction to linear algebra topics. Emphasis is placed on the development of abstract concepts and applications for vectors, systems of equations, matrices, determinants, vector spaces, multi-dimensional linear transformations, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to linear algebra-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MAT 285 Differential Equations (2 2 3)
Prerequisites: MAT 272
Corequisites: None
This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MECHANICAL

MEC 110 Intro to CAD/CAM (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program. (Sp.)

MEC 161 Manufacturing Processes I (3 0 3)
Prerequisites: None
Corequisites: None
This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials. (Sp.)

MEC 180 Engineering Materials (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications. (Sp.)

MEC 181 Introduction to Computer Integrated Manufacturing (CIM) (2 0 2)
Prerequisites: None
Corequisites: None
This course introduces the elements of computer-integrated manufacturing(CIM). Topics include statistical process control, computer-aided design and manufacturing, numeric control, and flexible systems. Upon completion, students should be able to explain the major components of computer-integrated manufacturing. (F.)

MEC 231 Computer-Aided Manufacturing I (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces computer-aided design/manufacturing (CAD/CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD/CAM applications. (Sp. S.)

MEC 232 Computer-Aided Manufacturing II (1 4 3)
Prerequisites: MEC 231
Corequisites: None
This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software. (S.)

MEC 270 Machine Design (3 3 4)
Prerequisites: EGR 250 or EGR 251 and EGR 252
Corequisites: None
This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles. (S.)

MEC 271 Machine Design Project (0 3 1)
Prerequisites: None
Corequisites: MEC 270
This course provides an opportunity for involvement in the practical application of machine design by development of a project. Emphasis is placed on the design and engineering processes required to complete an approved project. Upon completion, students should be able to demonstrate the ability to progress from conceptual design to completed project. (S.)

MEDICAL TERMINOLOGY

MED 121 Medical Terminology I (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatments of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. (F. Sp. S.)

MED 122 Medical Terminology II (3 0 3)
Prerequisites: MED 121
Corequisites: None
This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatments of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. (F. Sp. S.)

MARKETING AND RETAILING

MKT 120 Principles of Marketing (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making. (F.)

MKT 123 Fundamentals of Selling (3 0 3)
Prerequisites: None
Corequisites: None
This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered. (Sp.)

MKT 220 Advertising and Sales Promotion (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application. (Sp.)

MKT 223 Customer Service (3 0 3)
Prerequisites: None
Corequisites: None
This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations. (Sp.)

MAINTENANCE

MNT 110 Introduction to Maintenance Procedures (1 3 2)
Prerequisites: None
Corequisites: None
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards. (S.)

MNT 222 Industrial Systems Schematics (1 2 2)
Prerequisites: None
Corequisites:` None
This course covers the reading and drawing of schematics and diagrams. Emphasis is placed on water and gas plumbing, hydraulic and pneumatic circuits, electrical circuits, and welding diagrams. Upon completion, students should be able to interpret and construct industrial schematics and diagrams. (F. S.)

MUSIC

MUS 110 Music Appreciation (3 0 3)
Prerequisites: None
Corequisites: None
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp. S.)

MUS 112 Introduction to Jazz (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

MUS 113 American Music (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

MUS 121 Music Theory I (3 2 4)
Prerequisites: None
Corequisites: None
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, rear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

MUS 122 Music Theory II (3 2 4)
Prerequisites: MUS 121
Corequisites: None
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (Sp.)

MUS 131 Chorus I (0 2 1)
Prerequisites: Appropriate vocal proficiency
Corequisites: None
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 132 Chorus II (0 2 1)
Prerequisites: MUS 131
Corequisites: None
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.* (on demand)

MUS 141 Ensemble I (0 2 1)
Prerequisites: Audition
Corequisites: None
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. The ensemble courses will feature show choir literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 142 Ensemble II (0 2 1)
Prerequisites: MUS 141
Corequisites: None
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 151 Class Music I (0 2 1)
Prerequisites: None
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.* (on demand)

MUS 151V Class Music I (0 2 1)
Prerequisites: None
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 151V is the first of two class voice courses. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 152 Class Music II (0 2 1)
Prerequisites: None
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. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.* (on demand)

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. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 161 Applied Music I (1 2 2)
Prerequisites: Audition (L)
Corequisites: None
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 162 Applied Music II (1 2 2)
Prerequisites: MUS 161
Corequisites: None
This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 221 Music Theory III (3, 2, 4)
Prerequisites: MUS 122
Corequisites: None
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.*

MUS 222 Music Theory IV (3,2,4)
Prerequisites: MUS 221
Corequisites: None
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as premajor and/or elective course requirement.*

MUS 231 Chorus III (0 2 1)
Prerequisites: MUS 132
Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 232 Chorus IV (0 2 1)
Prerequisites: MUS 231
Corequisites: None
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 241 Ensemble III (0 2 1)
Prerequisites: MUS 142
Corequisites: None
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 242 Ensemble IV (0 2 1)
Prerequisites: MUS 241
Corequisites: None
This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 261 Applied Music III (1 2 2)
Prerequisites: MUS 162
Corequisites: None
This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

MUS 262 Applied Music IV (1 2 2)
Prerequisites: MUS 261
Corequisites: None
This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

NETWORKING TECHNOLOGY

NET 125 Networking Basics (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols. (F.)

NET 126 Routing Basics (1 4 3)
Prerequisites: NET 125
Corequisites: None
This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs. (Sp.)

NET 225 Routing and Switching I (1 4 3)
Prerequisites: NET 126
Corequisites: None
This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP. (F.)

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. (Sp.)

NET 289 Networking Project (1 4 3)
Prerequisites: None
Corequisites: NET 226
This course provides an opportunity to complete a significant networking project from the design phase through 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. (Sp.)

NETWORKING OPERATING SYSTEM

NOS 110 Operating System Concepts (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is 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. (F.)

NOS 120 Linux/UNIX Single User (2 2 3)
Prerequisites: None
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. (F.)

NOS 130 Windows Single User (2 2 3)
Prerequisites: None
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. (Sp.)

NOS 220 Linux/UNIX Administration I (2 2 3)
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. (Sp.)

NOS 230 Windows Administration I (2 2 3)
Prerequisites: None
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. (on demand)

NURSING

NUR 101 Practical Nursing I (7 6 6 11)
Prerequisites: Enrollment in the Practical Nursing program
Corequisites: None
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including assessment, clinical decision making, professional behaviors, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching/ learning, safety, ethical principles, legal issues, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course. (F.)

NUR 102 Practical Nursing II (8 0 12 12)
Prerequisites: NUR 101 (Local)
Corequisites: BIO 168 (Local)
This course is designed to further develop the concepts within the three domains of the individual, nursing, and healthcare. Emphasis is placed on the concepts within each domain including clinical decision making, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching and learning, accountability, safety, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course. (Sp.)

NUR 103 Practical Nursing III (6 0 12 10)
Prerequisites: NUR 101, NUR 102, BIO 168 (Local)
Corequisites: BIO 169 (Local)
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on biophysical and psychosocial concepts, professional behaviors, healthcare systems, health policy, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide safe, quality, and individualized entry level nursing care. (S.)

NUR 107 LPN Refresher (9 0 9 1)2
Prerequisite: Previous LPN Licensure
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. (F. Sp. S.)

NUR 111 Introduction to Health Concepts (4 6 6 8)
Prerequisites: Acceptance into the Associate Degree Nursing Program as a generic student
Corequisites: BIO 168 (if not already completed)
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (F.)

NUR 112: Health-Illness Concepts (3 0 6 5)
Prerequisites: NUR 111
Corequisites: BIO 169 (if not already completed)
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (Sp.)

NUR 113: Family Health Concepts (3 0 6 5)
Prerequisites: NUR 111, PSY 241
Corequisites: BIO 175
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (F.)

NUR 114: Holistic Health Concepts (3 0 6 5)
Prerequisites: NUR 111
Corequisites: None
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (S.)

NUR 211: Health Care Concepts (3 0 6 5)
Prerequisites: NUR 111
Corequisites: None
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (Sp.)

NUR 212: Health System Concepts (3 0 6 5)
Prerequisites: NUR 114, PSY 241
Corequisites: BIO 175
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (F.)

NUR 213: Complex Health Concepts (4 3 15 10)
Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212
Corequisites: None
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care. (Sp.)

NUR 214 Nursing Transition Concepts (3 0 3 4)
Prerequisites: Acceptance into the Associate Degree Nursing Program as an advanced placement student
Co requisite: NUR 211
This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (Sp.)

OFFICE SYSTEMS TECHNOLOGY

OST 130 Comprehensive Keyboarding (2 2 3)
Prerequisites: None
Corequisites: None
This course is designed to develop keyboarding skills and introductory document formatting. Emphasis is placed on keyboarding techniques and formatting basic business documents. Upon completion, students should be able to create documents in an ever-changing workplace. (F. Sp.)

OST 134 Text Entry & Formatting (2 2 3)
Prerequisites: None
Corequisites: None
This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability. (F. Sp.)

OST 136 Word Processing (2 2 3)
Prerequisites: None
Corequisites: None
This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment. (F. Sp. S.)

OST 148 Med Ins & Billing (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces fundamentals of medical insurance and billing. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim. (F.)

OST 149 Medical 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. (F. Sp. S.)

OST 155 Legal Terminology (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and accurately use legal terms. (F.)

OST 156 Office Ethics (3 0 3)
Prerequisites: OST 134
Corequisites: None
This course introduces the complex ethical and legal issues involved in the role of administrative support personnel in a variety of offices. Emphasis is placed on ethics, diversity, morality, and ethical standards of the administrative support professional. Upon completion, students should be able to conduct themselves in an ethical manner appropriate to a variety of offices. (F.)

OST 164 Office Editing (3 0 3)
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. (F. Sp.)

OST 184 Records Management (2 2 3)
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. (Sp.)

OST 243 Medical Office Simulation (2 2 3)
Prerequisites: OST 148
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. (Sp.)

OST 247 Procedure Coding (2 2 3)
Prerequisites: MED 121 or OST 141
Corequisites: None
This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility. (Sp.)

OST 248 Diagnostic Coding (2 2 3)
Prerequisites: MED 121 or OST 141
Corequisites: None
This course provides an in-depth study of diagnostic coding for the medical office. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility. (F.)

OST 249 Med Coding Certification Prep (2 3 3)
Prerequisites: OST 247 and OST 248
Corequisites: None
This course provides instruction that will prepare students to sit for a national coding certification exam. Topics include diagnostic and procedural coding. Upon completion, students should be able to sit for various medical coding certification exams. (Sp.)

OST 264 Medical Auditing (3 0 3)
Prerequisites: OST 247 and OST 248
Corequisites: None
This course provides instruction on how to apply regulations and policies to perform medical record audits for provider services. Emphasis is placed on understanding the scope of an audit, statistical sampling methodologies, performing a medical record audit, and compiling data for reports to improve the revenue cycle for healthcare services. Upon completion, students should be able to perform a medical audit. (Sp.)

OST 286 Professional Development (3 0 3)
Prerequisites: None
Corequisites: None
This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society. (F.)

OST 289 Office Admin Capstone (2 2 3)
Prerequisites: OST 134 or OST 136, and OST 164
Corequisites: None
This course is designed to be a capstone course for the office professional and provides a working knowledge of administrative office procedures. Emphasis is placed on written and oral communication skills, office software applications, office procedures, ethics, and professional development. Upon completion, students should be able to adapt in an office environment. (Sp.)

PHYSICAL EDUCATION

PED 110 Fit and Well for Life (1 2 2)
Prerequisites: None
Corequisites: None
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

PED 113 Aerobics I (0 3 1)
Prerequisites: None
Corequisites: None
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 117 Weight Training I (0 3 1)
Prerequisites: None
Corequisites: None
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F.)

PED 120 Walking for Fitness (0 3 1)
Prerequisites: None
Corequisites: None
This course introduces fitness through walking. Emphasis is placed on stretching, conditioning excercies, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recerational walking program.. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 128 Golf-Beginning (0 2 1)
Prerequisites: None
Corequisites: None
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 130 Tennis-Beginning (0 2 1)
Prerequisites: None
Corequisites: None
This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 137 Badminton (0 2 1)
Prerequisites: None
Corequisites: None
This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 143 Volleyball-Beginning (0 2 1)
Prerequisites: None
Corequisites: None
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 152 Swimming-Beginning (0 2 1)
Prerequisites: None
Corequisites: None
This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 153 Swimming-Intermediate (0 2 1)
Prerequisites: PED 152
Corequisites: None
This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 155 Water Aerobics (0 3 1)
Prerequisites: None
Corequisites: None
This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PED 219 Disk Golf (0 2 1)
Prerequisites: None
Corequisites: None
This course introduces the fundamentals of disc golf. Emphasis is placed on basic throwing techniques, putting, distance driving, scoring, and single and doubles play. Upon completion, students should be able to perform the skills required in playing situations. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

PIPE FITTING

PFT 111 Piping & Valves (3 3 4)
Prerequisites: None
Corequisites: None
This course introduces the terminology, uses, types, and components of metallic and non-metallic industrial piping systems. Topics include identification and application of valves and fittings, joining techniques, drawing interpretation, and the safe installation of piping systems. Upon completion, students should be able to select the proper materials and equipment to safely construct basic industrial piping systems in accordance with design drawing. (F. Sp. S.)

PHILOSOPHY

PHI 215 Philosophical Issues (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F.)

PHI 240 Introduction to Ethics (3 0 3)
Prerequisites: ENG 111
Corequisites: None
This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, students should be able to apply various ethical theories to moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals, and issues arising from new technologies. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

PHYSICS

PHY 110 Conceptual Physics (3 0 3)
Prerequisites: DMA 010, 020, 030, 040, 050 (L)
Corequisites: PHY 110A
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences. This course is also available through the Virtual Learning Community (VLC).* (F.)

PHY 110A Conceptual Physics Lab (0 2 1)
Prerequisites: None
Corequisites: PHY 110
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (F.)

PHY 131 Physics-Mechanics (3 2 4)
Prerequisites: MAT 121 or MAT 171
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. (F.)

PHY 132 Physics-Electricity and Magnetism (3 2 4)
Prerequisites: PHY 131
Corequisites: None
This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. (Sp.)

PHY 151 College Physics I (3 2 4)
Prerequisites: MAT 171
Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

PHY 152 College Physics II (3 2 4)
Prerequisites: PHY 151
Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

PHY 251 General Physics I (3 3 4)
Prerequisites: MAT 271
Corequisites: MAT 272
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.* (on demand)

PHY 252 General Physics II (3 3 4)
Prerequisites: MAT 272 and PHY 251
Corequisites: None
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in natural sciences.* (on demand)

PLUMBING

PLU 111 Introduction to Basic Plumbing (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system. (F.)

PLU 211 Commercial/Industrial Plumbing (2 2 3)
Prerequisites: None
Corequisites: None
This course covers the installation of various commercial and industrial piping. Topics include piping in steam, gas, air, fire sprinklers, and other related topics. Upon completion, students should be able to select and install various piping systems for a variety of applications. (Sp.)

POLITICAL SCIENCE

POL 120 American Government (3 0 3)
Prerequisites: None
Corequisites: None
This course is a study of the origins, development, structure, and functions of American 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 process. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp.)

PSYCHOLOGY

PSY 110 Life Span Development (3 0 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to the study of human growth and development. Emphasis is placed on the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span and apply this knowledge to their specific field of study. (on demand)

PSY 150 General Psychology (3 0 3)
Prerequisites: DRE 097, or satisfactory placement test scores (L)
Corequisites: None
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

PSY 237 Social Psychology (3 0 3)
Prerequisites: PSY 150 or SOC 210
Corequisites: None
This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (on demand)

PSY 241 Developmental Psychology (3 0 3)
Prerequisites: PSY 150
Corequisites: None
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

PSY 281 Abnormal Psychology (3 0 3)
Prerequisites: PSY 150
Corequisites: None
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (Sp.)

RELIGION

REL 110 World Religions (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F. Sp.)

REL 111 Eastern Religions (3 0 3)
Prerequisites: DRE 098 or satisfactory placement test scores (L)
Corequisites: None
This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (on demand)

REL 211 Introduction to Old Testament (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (F.)

REL 212 Introduction to New Testament (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in humanities/fine arts.* (Sp.)

INFORMATION SYSTEMS SECURITY

SEC 110 Security Concepts (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy. (Sp.)

SOCIOLOGY

SOC 210 Introduction to Sociology (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: None
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp. S.)

SOC 213 Sociology of the Family (3 0 3)
Prerequisites: DRE 097, or satisfactory placement test scores (L)
Corequisites: None
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (on demand)

SOC 220 Social Problems (3 0 3)
Prerequisites: DRE 097, or satisfactory placement test scores (L)
Corequisites: None
This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a general education course in social/behavioral sciences.* (F. Sp.)

SPANISH

SPA 111 Elementary Spanish I (3 0 3)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: SPA 181
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities/fine arts for AA and AS only, can not be used to satisfy the Humanities requirement for AAS degrees.* (F. Sp.)

SPA 112 Elementary Spanish II (3 0 3)
Prerequisites: SPA 111
Corequisites: SPA 182
This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities/fine arts for AA and AS only, can not be used to satisfy the Humanities requirement for AAS degrees.* (F. Sp.)

SPA 120 Spanish for the Workplace (3 0 3)
Prerequisites: None
Corequisites: None
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, the students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity. (on demand)

SPA 181 Spanish Lab I (0 2 1)
Prerequisites: DRE 097 or satisfactory placement test scores (L)
Corequisites: SPA 111
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

SPA 182 Spanish Lab II (0 2 1)
Prerequisites: SPA 181
Corequisites: SPA 112
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (F. Sp.)

SPA 211 Intermediate Spanish I (3 0 3)
Prerequisites: SPA 112
Corequisites: SPA 281
This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities/fine arts for AA and AS only, can not be used to satisfy the Humanities requirement for AAS degrees.* (on demand)

SPA 212 Intermediate Spanish II (3 0 3)
Prerequisites: SPA 211
Corequisites: SPA 282
This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement general education core requirement in humanities/fine arts for AA and AS only, can not be used to satisfy the Humanities requirement for AAS degrees.* (on demand)

SPA 281 Spanish Lab III (0 2 1)
Prerequisites: SPA 182
Corequisites: SPA 211
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

SPA 282 Spanish Lab IV (0 2 1)
Prerequisites: SPA 281
Corequisites: SPA 212
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved for transfer under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement as a premajor and/or elective course requirement.* (on demand)

SUSTAINABILITY TECHNOLOGIES

SST 110 Introduction to Sustainability (3 0 3)
Prerequisites: None
Corequisites: None
This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts. (F. Sp.)

SST 120 Energy Use Analysis (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption. (F. Sp.)

SST 140 Green Bldg & Design Concepts (3 0 3)
Prerequisites: None
Corequisites: None
This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction. (F. Sp. S.)

SURGICAL TECHNOLOGY

SUR 110 Introduction to Surgical Technology (3 0 0 3)
Prerequisites: None
Corequisites: SUR 111
This course provides a comprehensive study of the operative environment, professional roles, moral/legal/ethical responsibilities, and medical communications used in surgical technology. Topics include historical development, professional behaviors, medical terminology, interdepartmental/peer/relationships, operating room environment/safety, pharmacology, anesthesia, incision sites, and physiology of wound healing. Upon completion, students should be able to apply theoretical knowledge of the course topics to the operative environment. (F.)

SUR 111 Perioperative Patient Care (5 6 0 7)
Prerequisites: None
Corequisites: SUR 110
This course provides theoretical knowledge for the application of essential operative skills during the perioperative phase. Topics include surgical asepsis, sterilization/disinfection, and perioperative patient care. Upon completion, students should be able to demonstrate the principles and practices of aseptic technique, sterile attire, basic case preparation, and other relevant skills. (F.)

SUR 122 Surgical Procedures I (5 3 0 6)
Prerequisites: SUR 110 and SUR 111
Corequisites: SUR 123
This course proveides and introdution to selected basic and intermediate surgical specialities that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment. (Sp.)

SUR 123 Surgical Clinical Practice I (0 0 21 7)
Prerequisites: SUR 110 and SUR 111
Corequisites: SUR 122
This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles. (Sp.)

SUR 134 Surgical Procedures II (5 0 0 5)
Prerequisites: SUR 123
Corequisites: None
This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clincal rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students shoudl be able to correlate, intergrate, and apply theoretical knowledge of the course topics to the clinical operative environment. (S.)

SUR 135 Surgical Clinical Practice II (0 0 12 4)
Prerequisites: SUR 123
Corequisites: SUR 134
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. (S.)

SUR 137 Professional Success Preparation (1 0 0 1)
Prerequisites: None
Corequisites: None
This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification. (S.)

TRANSPORTATION TECHNOLOGY

TRN 170 PC Skills for Transp (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces students to personal computer literacy and Internet literacy with an emphasis on the transportation service industry. Topics include service information systems, management systems, computer-based systems, and PC-based diagnostic equipment. Upon completion, students should be able to access information pertaining to transportation technology and perform word processing. (Sp.)

TRN 180 Basic Welding for Transp (1 4 3)
Prerequisites: None
Corequisites: None
This course covers the terms and procedures for welding various metals used in the transportation industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standard. (F.)

TRN 180A Basic Welding for Transp Lab (0 3 1)
Prerequisites: None
Corequisites: TRN 180
This course provides a laboratory experience for enhancing student skills in welding and cutting procedures associated with the transportation industry. Emphasis is placed on safety and precautionary measures, setup/operation of MIG equipment, metal identification, welds/joints, techniques, inspection of welds/joints, cutting processes 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. (F.)

WORK-BASED LEARNING

WBL 110 World of Work (1 0 1)
Prerequisites: None
Corequisites; None
This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work. (F. Sp. S.)

WBL 111 Work-Based Learning I (0 10 1)
Prerequisites: None
Corequisites: None
This course provides a work-based learning 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. (on demand)

WBL 115 Work-Based Learning Seminar I (1 0 1)
Prerequisites: None
Corequisites: WBL 111, WBL 112, WBL 113 or WBL 114
Theories, techniques, and methods observed in the work settings will be discussed. Students will integrate ideas related in course work and work-based learning seminar situations. This course is designed to coordinate the classroom and industry experience. WBL 111 and WBL 115 must be taken the same term. (on demand)

WBL 121 Work-Based Learning II (0 10 1)
Prerequisites: None
Corequisites: None
This course provides a work-based learning 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. (on demand)

WEB TECHNOLOGIES

WEB 110 Internet/Web Fundamentals (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines. (F. Sp.)

WEB 115 Web Markup and Scripting (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards. (Sp.)

WEB 140 Web Development Tools (2 2 3)
Prerequisites: None
Corequisites: None
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets. (Sp.)

WEB 182 PHP Programming (2 2 3)
Prerequisites: CIS 115
Corequisites: None
This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language. (F.)

WEB 210 Web Design (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites. (F.)

WEB 225 Content Management Sys (2 2 3)
Prerequisites: WEB 110
Corequisites: None
This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website. (F.)

WEB 250 Database Driven Websites (2 2 3)
Prerequisites: DBA 110
Corequisites: None
This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards. (on demand)

WEB 285 Emerging Web Technologies (2 2 3)
Prerequisites: None
Corequisites: None
This course will explore, discuss, and research emerging technologies in the web arena. Emphasis is placed on exposure to up-and-coming technologies relating to the web, providing hands-on experience, and discussion of practical implications of these emerging fields. Upon completion, students should be able to articulate issues relating to these technologies. (Sp.)

WELDING

WLD 110 Cutting Processes (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness. (F.)

WLD 112 Basic Welding Processes (1 3 2)
Prerequisites: None
Corequisites: None
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes. (S.)

WLD 115 SMAW (Stick) Plate (2 9 5)
Prerequisites: None
Corequisites: None
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes. (F.)

WLD 116 SMAW (Stick) Plate/Pipe (1 9 4)
Prerequisites: WLD 115
Corequisites: None
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions. (F.)

WLD 117 Industrial SMAW (1 4 3)
Prerequisites: None
Corequisites: None
This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, student should be able to safely perform SMAW fillet and groove welds on carbon steel plate with prescribed electrodes. (F. Sp.)

WLD 121 GMAW (MIG) FCAW/Plate (2 6 4)
Prerequisites: None
Corequisites: None
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions. (Sp.)

WLD 122 GMAW (MIG) Plate/Pipe (1 6 3)
Prerequisites: WLD 121
Corequisites: None
This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry. (Sp.)

WLD 131 GTAW (TIG) Plate (2 6 4)
Prerequisites: None
Corequisites: None
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials. (Sp.)

WLD 132 GTAW (TIG) Plate/Pipe (1 6 3)
Prerequisites: WLD 131
Corequisites: None
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry. (F.)

WLD 141 Symbols and Specifications (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding. (Sp.)

WLD 143 Welding Metallurgy (1 2 2)
Prerequisites: None
Corequisites: None
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding. (Sp.)

WLD 151 Fabrication I (2 6 4)
Prerequisites: WLD 110 (Local) and WLD 115 (Local)
Corequisites: None
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment. (Sp.)

WLD 215 SMAW (Stick) Pipe (1 9 4)
Prerequisites: WLD 115 or WLD 116
Corequisites: None
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions. (F.)

WLD 231 GTAW (TIG) Pipe (1 6 3)
Prerequisites: WLD 132
Corequisites: None
This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions. (Sp.)

WLD 261 Certification Practices (1 3 2)
Prerequisites: WLD 115 and WLD 121 and WLD 131
Corequisites: None
This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes. (F.)

WLD 262 Inspection and Testing (2 2 3)
Prerequisites: None
Corequisites: None
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes. (Sp.)

WHEELS OF LEARNING

WOL 110 Basic Construction Skills (2 3 3)
Prerequisites: None
Corequisites: None
This course introduces the student to basic safety, tools, and skills commonly found in the construction related trades. Topics include safety, basic math, blueprints, hand and power tools, and rigging. Upon completion, students should have successfully completed the core curricula as identified by the National Center for Construction Education and Research. (F. Sp. S.)

DEPARTMENT PROGRAM OUTLINES

The title of Isothermal Community College's Quality Enhancement Plan (QEP) is "Start Strong. Finish Stronger." The focus is removing barriers to completion by strengthening educational planning at Isothermal.

The following Department Program Outlines are designed to assist students in educational planning by identifying educational pathways and enrolling in the correct sequence of courses for completing degrees, diplomas, or certificates in a timely manner. Students may "Start Strong. Finish Stronger" by establishing a Student Master Academic Plan (MAP), working with their advisors to stay on track, completing their programs of study in the most efficient way possible, and situating themselves for the achievement of their future educational and career goals. A Student Master Academic Plan (MAP) will be completed as a part of the college student success course (ACA 115 or 122) or by working with an advisor.

Students must meet with their advisor every semester. Some may think of this as a "pit stop" in making sure students are on the quickest path to completion. Students are flagged until they have met with their advisors and been cleared to proceed with registration.

Remember that the most current information for mapping out a Master Academic Plans (MAP) and monitoring progress is available through Patriot Port. The following Department Program Outlines should be used in addition to the program evaluation tool located in Patriot Port.

Advisor Information:
Norma Mott
nmott@isothermal.edu
828-395-1687

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Associate Degree Nursing - General Track (A45110)

Total Required Hours 70

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
1st Semester	NUR 111	Introduction to Business	8	16		FA	A
	BIO 168	Anatomy and Physiology I	4	6	Satisfactory placement scores or DRE 097	FA, SP, SU	A
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	1		FA, SP, SU	A
	PSY 150	General Physchology	3	3	Satisfactory placement scores or DRE 097	FA, SP, SU	A
			17				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
2nd Semester	NUR 112	Health Illness Concepts (8 wks)	5	9	NUR 111	SP	A
	NUR 211	Health Care Concepts (8 wks)	5	9	NUR 111	SP	A
	BIO 169	Anatomy & Physiology	4	6	BIO 168	FA, SP, SU	A
			14				

***NUR 214 Nursing Transition Concepts** 4 LPN License all related courses (Non Nur) must be completed prior to entry

Advanced Placement Students enter 2nd Semester and Take NUR 214, NUR 211 & BIO 169.

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
3rd Semester	NUR 114	Holistic Health Concepts	5	9	NUR 111, 112, 211	SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	PSY 241	Developmental Psychology	3	3	PSY 150	FA, SP, SU	A
			11				

***Nur 214 Nursing Transition Concepts** **4** LPN License All related courses(Non-Nursing) must be completed prior to entry

Advanced Placement students (from a concept-based PNE program enter 3rd semester & take NUR 214, NUR 114, ENG 112 & BIO 169.
(Credit is awarded for NUR 111, 112, & 211) All related courses(Non-Nursing) must be completed prior to entry.

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
4th Semester	NUR 113	Family Health Conccepts	5	9	NUR 111, 112, 211, 114	SP	A
	NUR 212	Health Systems Concepts	5	9	NUR 111, 112, 211, 114, 113	SP	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	BIO 175	Microbiology	3	4	BIO 168, 169	FA, SP, SU	A
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
5th Semester	NUR 213	Comples Health Concepts	10	22	NUR 111, 112, 211, 114, 113, 212,	SP	A
		Approved Humanities Elective	3	3	Varies	FA, SP, SU	A
			13				
		ART 111 Art Appreciation	3	3		FA, SP, SU	
		MUS 110 Music Appreciation	**3**	3		FA, SP, SU	
		MUS 112 Introduction to Jazz	**3**	3		SP	
		PHI 215 Phillosophical Issues	**3**	3	ENG 111	FA, SP	
		PHI 240 Introduction to Ethics	**3**	3	ENG 111	FA, SP	
		HUM 115 Critical Thinking	**3**	3		FA, SP, SU	

Credit Hours are Class, Lab, & Clinical added together.

Advisor Information:
Assigned through the Advising Center
Office of Learning Support and Retention
828-395-1436

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Associate in Arts (A10100)

Total Required Hours 60

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	3		FA, SP, SU	A
	SOC SCI	Social Science	3	3	Varies	FA, SP, SU	A
	HUM	Humanities	3	3	Varies	FA, SP, SU	A
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement or DMA 10, 20, 30, 40 ,50 & DRE 098	FA, SP, SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement or DRE 098	FA, SP, SU	A
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	MAT 152	Statistical Methods	4	5	Satisfactory placement or DMA 10, 20, 30, 40 ,50 & DRE 098	FA, SP, SU	A
	SOC SCI	Social Science	3	3	Varies	FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	ELEC	Pre Major Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	SOC SCI	Social Science	3	3	Varies	FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	NAT SCI	Natural Science	4	4	Varies	FA, SP	A
	P.M. ELEC	Pre Major Elective	3	3	Varies	FA, SP	A
	PED	Health & Wellness	1	1		FA, SP	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	SOC/BEH S	Social/ Behav Sci Elective	3	3	Varies	FA, SP, SU	A
	HUM	Humanities/Fine Arts	3	3	Varies	FA, SP, SU	A
	NAT SCI	Natural Science	4	4	Varies	FA, SP	A
	PED	Health & Wellness	1	1		FA, SP	A
	P.M.ELEC	Pre-Major elective	3	4	Varies	FA, SP	A

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Advisor Information:
Advising Center - Office of LSR - 828-395-1436
or **Dale Gaddis** - LLC, 828-395-1500

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Associate in Engineering (A10500)

Total Required Hours 60

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	MAT 271	Calculus 1	4	5	Satisfactory placement scores or MAT 171 & 172	FA, SP	A
	EGR 150	Intro to Engineering	2	3		FA	A
	CHM 151	General Chemistry 1	4	5	Satisfactory placement scores or DMA 10, 20, 30, 40, 50, 60, 70 & 80	FA	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	MAT 272	Calculus 2	4	5	MAT 271	FA, SP	A
	ENG 112	Writing/Research	3	3	ENG 111	FA, SP, SU	A
	ECO 151	Princ. Of Microeconomics	3	3		FA, SP	A
	SOC SCI	Social Science	3	3	Varies	FA, SP, SU	A
	HUM	Humanities/Fine Arts	3	3	Varies	FA, SP, SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	MAT 273	Calculus 3	4	5	MAT 272	FA, SP	A
	PHY 251	General Physics 1	4	5	MAT 271	FA	A
	HUM	Humanities/Fine Arts	3	3	Varies	FA, SP, SU	A
	P.M. ELEC	Pre Major Elective	varies	varies	Varies	FA, SP, SU	A

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	PHY 252	General Physics 2	4	5	PHY 251 & MAT 272	SP	A
	P.M. ELEC	Pre Major Elective	varies	varies	Varies	FA, SP, SU	A
	P.M. ELEC	Pre Major Elective	varies	varies	Varies	FA, SP, SU	A
	P.M. ELEC	Pre Major Elective	varies	varies	Varies	FA, SP, SU	A

Advisor Information:
Advising Center - Office of LSR - 828-395-1436
or *Jonathan Jones*, Arts and Sciences
828-395-1768, Student Center

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Associate in Fine Arts in Music (A10700)

Total Required Hours 61-63

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	3		FA, SP, SU	A
	MUS 121	Music Theory I	4	5		FA	A
	MUS 141	Ensemble I	1	2	Audition	FA, SP	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement or DRE 098	FA, SP, SU	A
	ACA 122	Transfer Success	1	2		FA, SP, SU	A
	MUS 151V	Class Music (Voice)	1	2		FA	A
	MUS 161	Applied Music I	2	2	Audition	FA, SP	A

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	OR						
	MAT 171/171A	Pre-Calculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP	A
	HIS 111	World Civilizations I	3	3	Satisfactory placement scores or DRE 097	FA, SP, SU	A
	OR						
	HIS 112	World Civilizations II	3	3	Satisfactory placement scores or DRE 097	FA, SP, SU	A
	MUS 122	Music Theory II	4	5	MUS 121	SP	A
	MUS 131	Chorus I	1	2	Appropriate vocal proficiency	FA, SP	A
	MUS 152V	Class Music II (Vocal)	1	2	MUS 151	SP	A
	MUS 162	Applied Music II	2	2	MUS 161	FA, SP	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	NAT SCI	Natural Science	4	4	Varies	FA, SP	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A
	MUS 151	Class Music I	1	2		FA	A
	MUS 142	Ensemble II	1	2	MUS 141	FA, SP	A
	MUS 221	Music Theory III	4	5	MUS 122	FA	A
	MUS 261	Applied Music III	2	2	MUS 162	FA, SP	A

15

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	MUS 110	Introduction to Maintenance Procedures	3	3		SP	A
	OR						
	MUS 112	Industrial Systems Schematics	3	3		FA, SP	A
	OR						
	SPA 111/181	Elementary Spanish/Lab	3	3	Satisfactory placement scores or DRE 097	FA, SP	
	MUS 132	Chorus II	1	2	MUS 131	FA, SP	A
	MUS 152	Class Music II	1	2	MUS 151	SP	A
	MUS 222	Music Theory IV	2	2	MUS 261	FA, SP	A
	UGETC Fine Arts/COM/HUM		3	3	Varies	FA, SP, SU	A

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Advisor Information:
Assigned through the Advising Center
Office of Learning Support and Retention
Student Center
828-395-1436

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Associate in Science (A10400)

Total Required Hours 60/61

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	3		FA, SP, SU	A
	Eng 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	MAT 171	Pre-Calculus Alegbra*	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP	A
	NAT. SCI	Natural Science*	4	4	Varies	FA, SP	A
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A

15

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	MAT 172	Pre Calculus Trigenometry*	4	5	MAT 171	FA, SP	A
	SOC SCI	Social Science	3	3	Varies	FA, SP, SU	A
	NAT. SCI	Natural Science*	4	4	Varies	FA, SP	A
	ELEC	Pre Major Elective	3	3	Varies	FA, SP	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	MAT 271	Calculus I*	4	5	MAT 171 & 172	FA, SP	A
	HUM/SS	Hum or Soc Sci Elective	3	3	Varies	FA, SP, SU	A
	NAT SCI	Natural Science*	4	4	Varies	FA, SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	P.M. ELEC	Pre-Major Elective	4	4	Varies	FA, SP	A
	P.M.ELEC	Pre-Major Elective	4	4	Varies	FA, SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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***Advisor information*:**
Accounting, Business Sciences
Mr. Rick Childress, 828-395-1641, rchildress@isothermal.edu
Mrs. Marisa Sudano, 828-395-1426, msudano@isothermal.edu
Please contact the Department of Business Sciences at
828-395-1670, Business Sciences Building, for your assigned advisor

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Accounting (A25100)

Total Required Hours 64-66

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A, D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C1-C3
	BUS 110	Introduction to Business	3	3		FA, SP	A
	BUS 125	Personal Finance	3	3		FA, SP	A
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C2
			14				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP	A, D, C1
	ACC 122	Financial Accounting II	3	3	ACC 120	SP	A, D, C3
	ACC 129	Individual Income Tax	3	3		SP	A, D, C2
	ACC 150	Accounting Software Applications	2	2	ACC 120	SP	A, D, C1-3
	CTS 130	Spreadsheet	3	4	CIS 110	FA, SP, SU	A, D
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 140	Payroll Accounting	2	2	ACC 120	FA	A, D, C1, C3
	ACC 220	Intermediate Accounting	4	5	ACC 120	FA	A, D
	BUS 253	Leadership and Management Skills (Track A)	3	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	BUS 115	Business Law	3	3		FA	A, D
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A, D
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A, D
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
			15-16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 180	Practices in Bookkeeping	3	3	ACC 120	SP	A, D, C3
	BUS 137	Principles of Management (Track A)	3	3		FA, SP	A
	BUS 225	Business Finance (Track B)	3	3	ACC 120	SP	A
	BUS 260	Business Communication (Track B)	3	3	ENG 110 or ENG 111	SP	A
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			16-19				

A A25100 Accounting
D D25100 Accounting
C1 C25100 General Accounting Certificate
C2 C25100A Computerized Accounting Certificate
C3 C25100B Payroll Accounting, A/R, A/P Clerk Certificate

Advisor Information:
Zachary Freeman
Applied Sciences and Engineering Technology
828-395-1534
zfreeman@isothermal.edu

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Advertising and Graphic Design (A30100)

Total Required Hours 76

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	DES 135	Prin. & Elem of Design	4	6		FA,	A, C
	GRD 141	Graphic Design I	4	6		FA	A, C
	GRD 151	Computer Design Basics	3	5		FA	A, C
	GRD 160	Photo Fundamentals I	3	5		FA, SP	A, C
	GRD 110	Typography I	3	4		FA	A
			18				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	GRD 121	Drawing Fund.I	2	4		SP	A, C
	GRD 142	Graphic Design II	4	6	GRD 141	SP	A
	GRD 152	Computer Design Tech I	3	5	GRD 151	SP	A
	GRD 161	Photo Fundamentals	3	5	GRD 160	FA,SP	A
	GRD 281	Design of Advertising	2	4		SP	A
			17				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	GRD 131	Illustration I	2	4	GRD 121	FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
			11				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	GRD 132	Illustration II	2	4	GRD 131	FA, SP, SU	A
	GRD 241	Graphic Design III	4	6	GRD 142	FA	A
	GRD 153	Computer Design Tech II	3	5	GRD 152	FA	A
	GRD 162	Photo Portfolio	3	5	GRD 161	FA,SP	A
	ENG 112	Writing/Research in the Disciplines	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	GRD 263	Illustrative Imaging	3	5	GRD 151	FA, SP,	A
	GRD 242	Graphic Design IV	4	6	GRD 241	SP	A
	GRD 280	Portfolio Design	4	6	GRD 142	SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	ELEC	CHOOSE FROM ELECTIVES	3		Varies		A
	ELEC	CHOOSE FROM ELECTIVES	3		Varies		A
			20				

OPTIONAL ELECTIVES Choose 4 SH from the course below:

Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathways
ART 131 Drawing I	3	6		FA, SP,	A
ART 132 Drawing II	3	6	ART 131	FA, SP,	A
ART 140 Basic Painting	2	4		FA, SP,	A
GRD 133 Illustration III	2	4	GRD 132	FA, SP, SU	A
GRD 233 Product Illustration	2	4	GRD 133 & GRD 152	FA, SP, SU	A
MKT 220 Advertising and Sales Pro	3	3		SP,	A
SPA 120 Spanish for the Workplace	3	3		FA,SP,	A
GRD 167 Photographic ImagingI	**3**	**5**		FA, SP,	A
GRD 168 Photographic ImagingII	**3**	**5**	GRD 167	FA, SP,	A
WBL 111 Work-Based Learning I	1	10		FA, SP,	A
WBL 121 Work-Based Learning II	1	10		FA, SP,	A
WEB 110 Internet Fundamentals	3	4		FA, SP,	A

Advisor Information:
Kim Alexander, Dean of Business Sciences
Agribusiness Technology
Business Sciences
kalexander@isothermal.edu 828-395-1759

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Agribusiness Technology - Equine Business Track (A15100)
Total Required Hours 69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	Success & Study Skills	1	2		FA, SP, SU	A
	ANS 116	Introduction to the Equine Industry	3	3		FA, SU	A,C
	AGR 170	Soil Science	3	4		FA	A
	ENG 111	Wrtiting & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP	A
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A
	AGR 139	Introduction to Sustainable Agriculture	3	3		FA	A
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 125	Personal Finance	3	3		FA, SP, SU	A
	ANS 115	Animal Feeds and Nutrition	3	4		SP	A,C
	AGR 140	Agriculture Chemicals	3	3		SP	A
	BUS 230	Small Business Management	3	3		SP	A,C
	AGR 111	Basic Farm Maintenance	3	3		SP	A
	ANS 180	Equine Production	4	5		SP	A,C
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ANS 110	Animal Sciences	3	3		FA, SU	A
	BIO 111	General Biology	4	3		FA, SP, SU	A
	ECO 252	Pinciples of Macroeconomics	3	3		FA, SP, SU	A
	AGR 213	Ag Law & Finance	3	3		FA	A
	AGR 210	Agriculture Accounting	3	3		FA	A
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OR						
	ENG 112	Writing/Research in the Disciplines	3	3	ENG 111	FA, SP, SU	A
			19				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ECO 251	Principles of Microeconomics	3	3		FA, SP, SU	A
	AGR 214	Agriculture Marketing	3	3		SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	AGR 261	Agronomy	3	3		FA	A
	AGR 212	Farm Business Management	3	3		SP	A
	WBL 111	Work Based Learning I	1	10	Last Semester	FA, SP	A
			16				

Agribusiness Technology - Degree "A" 15100
Equine Business Technololgy - Certificate "C" 15100-01

Advisor Information:
Kim Alexander, Dean of Business Sciences
Agribusiness Technology
Business Sciences

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Agribusiness Technology - General Business Track (A15100)
Total Required Hours 69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	Success & Study Skills	1	2		FA, SP, SU	A
	BIO 111	General Biology	4	3		FA, SP, SU	A
	MKT 120	Principles of Marketing	3	3		FA	A
	AGR 170	Soil Science	3	3		FA	A,C
	ANS 110	Animal Science	3	3		FA, SU	A,C
	AGR 139	Introduction to Sustainable Agriculture	3	3		FA	A,C
			17				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Wrtiting & Inquiry	3	3	Satisfactory placement or DRE 098	FA, SP	A
	BUS 125	Personal Finance	3	3		FA, SP	A
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A
	AGR 111	Basic Farm Maintenance	3	3		SP	A
	AGR 140	Agriculture Chemicals	3	3		SP	A
	BUS 110	Introduction to Business	3	3		FA, SP	A
			15				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Financial Accounting	4	5		FA, SP, SU	A
	ECO 252	Pinciples of Macroeconomics	3	3		FA, SP	A
	BUS 230	Small Business Management	3	3		SP	A
	AGR 213	Ag Law & Finance	3	3		FA	A
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OR						
	ENG 112	Writing/Research in the Disciplines	3	3	ENG 111	FA, SP, SU	
	AGR 210	Agriculture Accounting	3	3		FA	A
			19				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	AGR 214	Agriculture Marketing	3	3		SP	A,C
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	ECO 251	Principles of Microeconomics	3	3		FA, SP, SU	A
	AGR 261	Agronomy	3	3		SP	A
	AGR 212	Farm Business Management	3	3		SP	A
	WBL 111	Work Based Learning I	1	10	Last Semester	FA, SP	A
			16				

Agribusiness Technology - Degree "A" "C" 15100 & C-002

***Advisor Information*:**
Broadcasting & Technology, Applied Sciences & Engineering
Jay Coomes, jcoomes@isothermal.edu, 828-395-1575
Communications Building

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Broadcasting and Production Technology (A30120)

Total Required Hours 72/73

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPT 110	Introduction to Broadcasting	3	3		FA	A, D
	BPT 131	Audio/Radio Production I	4	8		FA	A, D, C
	BPT 140	Introduction to TV Systems	2	2		FA	A, D, C
	BPT 135	Radio Performance I (or)	2	6		FA, SU	A, D, C
	BPT 235	TV Performance I	2	6		FA, SP	A, D, C
	BPT 231	Video/TV Production I	4	8		FA	A, D, C
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory Placement scores or DRE 098	FA, SP, SU	A, D
		BPT Options:					
	BPT 241	Broadcast Journalism I	4	5		FA	A
	BPT 250	Institutional Video	3	5		FA	A, D, C
	CIS 110	Introduction to Computers	3	4		FA,SP,SU	A, D
	WEB 110	Internet/Web Fundamentals	3	4		FA	A
			19				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPT 112	Broadcast Writing	4	5		SP	A, D
	BPT 132	Audio/Radio Production II	4	8	BPT 131	SP	A, D, C
	BPT 232	Video/TV Production II	4	8	BPT 231	SP	A, D, C
	BPT 136	Radio Performance II (or)	2	6	BPT 135	FA, SP	A, D, C
	BPT 236	TV Performance II	2	6	BPT 235	FA, SP	A, D, C
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	FVP 227	Multimedia Production	3	5		SP	A
		BPT Options:					
	BPT 121	Broadcast Speech I	3	5		SP	A, D, C
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C
			20				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
		BPT Options:					
	BPT 220	Broadcast Marketing	3	3		SU	A
	CIS 110	Introduction to Computers	3	4		FA. SP. SU	A, D
			6				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPT 111	Broadcast Law and Ethics	3	3		FA	A, D
	BPT 137	Radio Performance III (or)	2	6	BPT 136	FA, SP	A, D
	BPT 237	TV Performance III	2	6	BPT 236	FA, SP	A, D
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	BPT 241	Broadcast Journalism I	4	5		FA	A
	BPT 250	Institutional Video	3	5		FA	A, C
	Hum Elec	Humanities Elective (or)	3	3	varies	FA, SP, SU	A
	Soc Elec	Social Science Elective	3	3	varies	FA, SP, SU	A, D
		BPT Options::					
	BPT 241	Broadcast Journalism I	4	5		FA	A
	BPT 250	Institutional Video	3	5		FA	A,C
	BPT 260	Multi-Track Recording	3	4	BPT 132	FA	A, C
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D
	WEB 110	Internet/Web Fundamentals	3	4		FA	A
			18-19				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPT 113	Broadcast Sales	3	3		SP	A, D
	BPT 285	Broadcast Capstone Course	3	7	BPT132 or BPT232	SP	A
	BPT 138	Radio Performance IV (or)	2	6	BPT 137	FA, SP	A
	BPT 238	TV Performance IV	2	6	BPT 237	FA, SP	A
	Hum Elec	Humanities Elective (or)	3	3	Varies	FA, SP, SU	A
	Soc Elec	Social Science Elective	3	3	Varies	FA, SP, SU	A, D
	WBL 111	Work-Based Learning I	1	10	Last Semester	FA, SP	A, D
		BPT Options:					
	BPT 121	Broadcast Speech I	3	5		SP	A, D, C
	BPT 215	Broadcast Programming	3	3		SP	A
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D
			18				

***Advisor information*:**
Building Construction Technology
Applied Sciences & Engineering
Michael Lyda, 828-395-1605
mlyda@isothermal.edu
Rear side of Business Sciences

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	
		DMA 020		DMA 060	

Last Name First Name Name Called Student ID#

Building Construction Technology (A35140)

Total Required Hours 76/77

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D, C
	ARC 112	Construction Materials & Method	4	5		FA, SP, SU	A, D, C
	BPR 130	Print Reading-Construction	3	3		FA	A, D, C
	CAR 111	Carpentry I	8	18		FA, SP, SU	A, D, C
	WOL 110	Basic Construction Skills	3	5		FA, SP, SU	A, D, C
			19				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ARC 131	Building Codes	3	4	ARC 112 or CAR 111	SP	A, D, C
	TECH	Technical Elective	3	3	Varies	SP	A, D
	CST 131	OSHA/Safety/Certification	3	4		SP	A, D, C
	CST 251	Electrical Wiring Systems	3	4		SP	A, D, C
	MAT 110 or Higher	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020,030 or varies for higher MAT courses	FA, SP	A, D
	SST 140	Green Building & Design Conc.	3	3		FA, SP, SU	A, D, C
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	CMT 120	Codes & Inspections	3	3		FA	A, D, C
	CST 221	Statics & Structures	4	6	MAT 121 and ARC 112	FA	A, D
	TECH	Technical Elective	3	4	Varies	FA	A, D, C
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP	A, D
	TE-CAR 112	Carpentry II	8	18	CAR 111	FA, SP, SU	A, C
			21				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	TECH	Technical Elective	3	3	Varies	FA, SP	A, C
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	HUM	Humanities/Fine Arts Elective	3	3	Varies	Varies	A
	SOC SCI	Social/Behavioral Elective	3	3	Varies	Varies	A
	TE-CAB 111	Cabinetmaking I	7	13		FA, SP	A
			19				

TE = ***Recommended Technical Electives***

Use your program evaluation tool on Patriot Port to see all of your technical elective options.

ADVISOR INFORMATION:

Business Administration: Banking & Finance

Rick Childress, 828/395-1641, rchildress@isothermal.edu
Scott Hutchins, 828/395-1986, shutchins@isothermal.edu
Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu

For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Banking & Finance (A25120B)

Total Required Hours 66/67

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BAF 110	Principles in Banking	3	3		FA	A, D, C2
	BUS 110	Introduction to Business	3	3		FA	A, D, C0,C6
	BUS 125	Personal Finance	3	3		FA, SP	A, D, C2
	CIS 110	Introduction to Computers	3	3		FA, SP, SU	A, D, C0
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BAF 222	Money and Banking	3	3		SP	A, C2
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP	A, D*
	HUM	Humanities Elective	3	3	Varies		A, D*
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C2,C6
	BAF 141	Law & Banking: Principles	3	3		FA	A
	BUS 115	Business Law I	3	3		FA	A, D, C0
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C6
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A, C2
	ACC 150	Software Applications	2	2	ACC 120	SP	A
	BAF 131	Fundamentals of Bank Lending	3	3	ACC 120	SP	A
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			16/17				

A A25120B Business Administration - Banking and Finance Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C2 C25120B Banking and Finance Certificate
C6 C25120N Business Economics Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

ADVISOR INFORMATION:

Business Administration, Business Accounting

Rick Childress, 828/395-1641, rchildress@isothermal.edu
Scott Hutchins, 828/395-1986, shutchins@isothermal.edu
Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu
For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Business Accounting (A25120A)

Total Required Hours 65/66

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D C1,C6
	BUS 110	Introduction to Business	3	3		FA, SP	A, D,C0,C6
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 125	Personal Finance	3	3		FA, SP	A, D, C0
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C0, C1
			17				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A, C1
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
			12				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 220	Intermediate Accounting *	4	5	ACC 120	FA	A
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D, C6
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 180	Practices in Bookkeeping	3	3	ACC 120	SP	A, C1
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	ENG 112	Writing/Rsrch in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
	HUM	Humanities Elective	3	3	Varies		A
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			16/17				

A A25120A Business Administration - Business Accounting Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C1 C25120A Business Accounting Certificate
C6 C25120N Business Economics Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

ADVISOR INFORMATION:

Business Administration: Business Technology

Rick Childress, 828/395-1641, rchildress@isothermal.edu
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Marisa Sudano, 828/395-1426, msudano@isothermal.edu

For additional program information please call Dept of Business at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Business Technology (A25120T)

Total Required Hours 67/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA, SP	A, D,C0,C2
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 125	Personal Finance	3	3		FA, SP	A, D, C0
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A,D,CO,C4
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D, C4
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C2
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D*
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A, D*
	WEB 210	Web Design	3	4		SP	A, C4

18

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C2
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	CTS 115	Information Sys. Business Concepts	3	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C2

16/17

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP, SU	A
	DBA 110	Database Concepts	3	5		SP, SU	A, C4
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A

17-18

A A25120T Business Administration - Business Technology Degree
D D25120 Business Administration Diploma
C0 C25120 General Business Administration Certificate
C2 C25120N Business Economics Certificate
C4 C25120T Business Technology Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

ADVISOR INFORMATION:

Business Administration: Entrepreneurial Innovations

Rick Childress, 828/395-1641, rchildress@isothermal.edu
Scott Hutchins, 828/395-1986, shutchins@isothermal.edu
Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu

For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Entrepreneurial Innovations (A25120E)

Total Required Hours 67/68

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA, SP	A, D, C0, C3, C6
	BUS 139	Entrepreneurship I	3	3		FA	A, C3
	BUS 125	Personal Finance	3	3		FA, SP	A, D, C0
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C0
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C6
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	BUS 230	Small Business Management	3	3		SP	A, C3
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C6
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	ETR 220	Innovation and Creativity	3	3		FA	A, C3
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A, D*
			18				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			14/15				

A A25120E Business Administration - Entrepreneurial Innovations Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C3 C25120E Entrepreneurial Innovations Certificate
C6 C25120N Business Economics Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

ADVISOR INFORMATION:

Business Administration: General Business

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Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu

For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - General Business (A25120G)

Total Required Hours 67-68

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA, SP	A, D, C0, C6
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 125	Personal Finance	3	3		FA, SP	A, D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C0
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	Elective	Choose From List Below	3	3	Varies		A
	Elective	Choose From List Below	3	3	Varies		A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D*
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C6
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C6
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	Elective	Choose From List Below	3	3	Varies		A
	HUM	Humanities Elective	3	3	Varies		A, D*
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			17/18				

General Business Electives (Choose 8 Credits)

ACC 129 Individual Income Tax (SP) 3 credits
ACC 140 Payroll Accounting (F) 2 credits
ACC 150 Accounting Software Applications (SP) 2 credits
ACC 180 Bookkeeping (SP) 3 credits
ACC 220 Intermediate Accounting I (F) 4 credits
BUS 139 Entrepreneurship I (F) 3 credits
BUS 225 Business Finance (on demand) 3 credits
BUS 230 Small Business Management (SP) 3 credits
CIS 115 Intro. to Programming & Logic (3 credits
CTS 115 Information Sys. Business Concepts (F) 3 credits
DBA 110 Database Concepts (SP) 3 credits
ETR 220 Innovation and Creativity (F) 3 credits
HRM 110 Introduction to Hospitality (F) 3 credits
HRM 140 Legal Issues - Hospitality (F) 3 credits
HRM 150 Training for Hospitality (SP) 3 credits
MKT 123 Fundamentals of Selling (SP) 3 credits
MKT 220 Advertising and Sales Promotion (SP) 3 credits
MKT 223 Customer Service (SP) 3 credits
OST 130 Comprehensive Keyboarding (F,SP) 3 credits
OST 136 Word Processing (F,SP) 3 credits
OST 286 Professional Development (F) 3 credits
WEB 210 Web Design (F) 3 credits
WEB 285 Emerging Web Technologies (F) 3 credits

A A25120G Business Administration - General Business Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C6 C25120N Business Economics Certificate

***Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.**

ADVISOR INFORMATION:

Business Administration: Hospitality

Rick Childress, 828/395-1641, rchildress@isothermal.edu
Scott Hutchins, 828/395-1986, shutchins@isothermal.edu
Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu
For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Hospitality (A25120H)

Total Required Hours 66/67

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA, SP	A, D,C0,C6
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 125	Personal Finance	3	3		FA. SP	A, D, C0
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C0
	HRM 110	Introduction to Hospitality & Tourism	3	3		FA	A, D, C4
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C4
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D*
	HRM 150	Training for Hospitality	3	3		SP	A, C4
	MKT 223	Customer Service	3	3		SP	A, C4
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C6
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C6
	HRM 140	Legal Issues - Hospitality	3	3		FA	A, C4
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0
			3				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A, D*
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			13/14				

A A25120H Business Administration - Hospitality Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C4 C25120H Hospitality Certificate
C6 C25120N Business Economics Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

Business Administration diploma must also complete 6 general education hours from the following: ECO 252, ENG 111, ENG112/COM 231, MAT or HUM.

ADVISOR INFORMATION:

Business Administration: Marketing & Sales

Rick Childress, 828/395-1641, rchildress@isothermal.edu
Scott Hutchins, 828/395-1986, shutchins@isothermal.edu
Melissa Johnson, 828/395-1524, johnsonm@isothermal.edu
Marisa Sudano, 828/395-1426, msudano@isothermal.edu

For additional program information call Dept. of Business Sciences at 395-1670.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Business Administration - Marketing and Sales (A25120M)

Total Required Hours 67/68

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA, SP	A, D,C0,C6
	BUS 115	Business Law	3	3		FA	A, D, C0
	BUS 125	Personal Finance	3	3		FA, SP	A, D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C0
	MKT 120	Principles of Marketing	3	3		FA	A, D, C0,C5
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, C6
	BUS 137	Principles of Management	3	3		FA, SP	A, D, C0
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A, D, C6
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D*
	MKT 123	Fundamentals of Selling	3	3		SP	A, C5
	MKT 223	Customer Service	3	3		SP	A, C5
			15				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 153	Human Resource Management	3	3		FA	A, D
	BUS 253	Leadership and Management Skills	3	3		FA	A
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D*, C6
	HUM	Humanities Elective	3	3	Varies		A, D*
	WEB 285	Emerging Web Technologies	3	4		FA	A, C5
			18				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A, D*
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A, D*
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D*
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D*
	WBL 110	World of Work	1	1	Last Semester		A
			14/15				

A A25120M Business Administration - Marketing and Sales Degree
D D25120 Business Administration Diploma
C0 C25120 Business Administration Certificate
C5 C25120M Marketing and Sales Certificate
C6 C25120N Business Economics Certificate

Business Administration diploma must also complete 9 general education hours from the following: ENG 111, ENG 112 or COM 231, & ECO 252 or HUM or MAT.

***Advisor Information**:*
Collision Repair and Refinishing Technology,
Applied Sciences & Engineering
Phillip Fischer
pfischer@isothermal.edu
828-395-1428
Auto Body Shop

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Collision Repair and Refinishing Technology (D60130)

Total Required Hours 48

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010,020,030	FA, SP	D
	TRN 180/180A	Basic Weld Trans	4	8		FA	D,C
	AUB 111	Painting and Refinish	4	8		FA	D,C
	AUB 121	Non Struct. Damage 1	3	5		FA	D,C
	AUB 131	Structural Damage 1	4	6		FA	D,C
	AUB 160	Body Shop Operations	1	1		FA	D

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	AUB 136	Plastics and Adhesives	3	5		SP	D
	AUB 112	Painting and Refinishing II	4	8	AUB 111	SP	D,C
	AUB 122	Non Structural Damage II	4	8	AUB 121	SP	D,C
	TRN 170	PC Skills for Transport	2	3		SP	D
	AUB 162	Autobody Estimating	2	3		SP	D
	ENG 101	Applied Communications I	3	3			D
	OR						
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	D

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Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	AUB 132	Structural Damage II	4	8	AUB 131	SU	D,C
	AUB 114	Special Finishes	2	3	AUB 111	SU	D
	AUB 150	Automotive Detailing	2	4		SU	D
	BUS 230	Small Business Management	3	3		FA, SP,SU	D
	OR						
	CIS 110	Intro to Computers	3	4		FA, SP,SU	D

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Advisor Information:
Electronic Engineering Technology,
Applied Sciences & Engineering
Steve Hollifield
shollifield@isothermal.edu
828-395-1521
Chester Peeler
828-395-1627
cpeeler@isothermal.edu

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Computer Engineering Technology (A40160)

Total Required Hours 73-75

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115*	Success & Study Skills	1	2		FA, SP, SU	A,D
	CET 111	Computer Upgrade and Repair	3	5		FA	A,D,C
	EGR 110	Intro to Engineering Technology	2	3		FA	A,D,C
	ELC 138	DC Circuit Analysis	4	6		FA	A,D,C
	ELN 133	Digital Electronics	4	6		FA	A,D,C
	MAT 121**	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 10,20,30,40,50,60	FA,SP	A,D
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA,SP	A,D

17 or 18

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A
	ELC 139	AC Circuit Analysis	4	6		SP	A,D,C
	ELN 131	Analog Electronics I	4	6	ELC 112 or ELC 138	SP	A,D,C
	ELN 232	Introduction to Microprocessors	4	6		SP	A,D,C
	MAT 122***	Algebra/Trigonometry II	3	4	MAT 121	SP	A
	OR						
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 and DRE 098	FA, SP, SU	A
	OR						
	MAT 172	Precalculus Trigonometry	4	4	MAT 171	FA,SP	A

18 or 19

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CET 161	Procedural Programming	3	5		SU	A,C
	ELN 152	Fabrication Techniques	2	4		SU	A,C
	ELN 233	Microprocessor Systems	4	6	ELN 232	SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ATR 211	Robot Programming	3	5		FA	A,C
	ELC 128	Introduction to PLCs	3	5		FA	A,C
	ENG 111	Writing and Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A,D
	PHY 131	Physics of Mechanics	4	5	MAT 121 or MAT 171	FA, SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 132	Electrical Drawings	2	4		SP	A
	ELC 127	Software for Technicians	2	4	ELC 111, 112, or ELC 138	SP	A,C
	PHY 132	Physics of Electricity & Mag	4	5	PHY 131	SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	ENG 112	Writing and Research in the Discpline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A

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*ACA 122 may be substituted for ACA 115

**MAT 171 may be substituted for MAT 121 but requires addt'l DMA 070-080 prerequisite

***MAT 172 may be substituted for MAT 122 but requires MAT 171 prerequisite

***MAT 121 & 122 do NOT lead to Calculus. Students planning to pursue a bachelor's degree in engineering should take MAT 171 & 172 instead.**

Advisor Information:
Computer Integrated Machining,
Applied Sciences & Engineering
Jeff Waters, Machine shop
jwaters@isothermal.edu
828-395-1406

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Computer Integrated Machining (D50210)

Total Required Hours 48

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPR 111	Blueprint Reading	2	3		FA	D, C
	MAC 122	CNC Turning	2	4		FA	D, C
	MAC 124	CNC Milling	2	4		FA	D, C
	MAC 121	Intro to CNC	2	2		FA	D, C
	MAC 141	Machine Applications I	4	8		FA	D,C
	MAC 141A	Machine Applications I Lab	2	6		FA	D,C

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MEC 110	Intro to CAD/CAM	2	3		SP	D
	MAC 151	Machining Calculations	2	3		SP	D, C
	MAC 222	Adv. CNC Turning	2	4	MAC 122	SP	D,C
	MAC 224	Adv. CNC Milling	2	4	MAC 124	SP	D,C
	MAC 142	Machine Applications II	4	8	MAC 141	SP	D,C
	MAC 142A	Machine Applications II Lab	2	6	MAC 141A	SP	D,C
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	D
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060		

13/14

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 101	Applied Communication	**3**	**3**			D
	OR						
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	D
	DFT 121	Intro to GD&T	2	3		SU	D
	CIS 110	Intro to Computers	3	4		FA, SP, SU	D
	MEC 231	Computer Aided Manufacturing	3	5		SP, SU	D
	MAC 233	Applications to CNC Machining	6	14	MAC 142	SU	D,C

Advisors Information:
Cosmetology, Health & Public Services
Connie Toney, *ctoney@isothermal.edu*
(828)395-1439

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Cosmetology (A55140)

Total Required Hours 74

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered
	ACA 115	Success and Study Skills	1	2		FA,SP,SU
	OR					
	ACA 122	CollegeTransfer Success	1	2		FA,SP,SU
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA,SP,SU
	COS 111	Cosmetology Concepts I	4	4		FA,SP,SU
	COS 112	Salon I	8	24		FA,SP
			16			

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered
	COS 113	Cosmetology Concepts II	4	4		FA,SP
	COS 114	Salon II	8	24		FA,SP
	COS ELEC	Cosmetology Elective (see below)			Varies	
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA,SP,SU
	OR					
	COM 231	Public Speaking	3	3		FA,SP,SU
			15			

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered
	COS 223	Cont Hair Coloring	2	4	COS 111, COS 112	SU
	COS ELEC	Cosmetology Elective (see below)			Varies	
	COS ELEC	Cosmetology Elective (see below)			Varies	SU
	COS 225	Advanced Hair Coloring	2	4	COS 223	SU
	COS 119	Esthetics Concepts I	2	2		SU
			6			

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered
	COS 117	Cosmetology Concepts IV	2	2		FA,SP
	COS 118	Salon IV	7	21		FA,SP
	MAT 110	Math Measurement & Literacy	3	3	Satisfactory placement scores or DMA 010, 020, 030	FA,SP,SU
	SOC SCI	Social Science Elective	3	3	Varies	
			15			

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered
	COS 115	Cosmetology Concepts III	4	4		FA,SP
	COS 116	Salon III	4	12		FA,SP
	HUM	Humanities Elective	3	3	Varies	FA,SP,SU
	CIS 110	Intro to Computers	3	3		FA,SP,SU
			14			

Cosmetology Electives - Take 7 credit hours from the list below.

BUS 137 Principles of Management
BUS 230 Small Business Management
BUS 253 Leadership & Management Skills
COS 119 Esthetics Concepts I
COS 121 Manicure/Nail Technology I
COS 222 Manicure/Nail Technology II
COS 224 Trichology and Chemistry
COS 240 Contemporary Design
COS 250 Computerized Salon Ops
WBL 111 Work- Based Learning I
WBL 115 Work-Based Learning Seminar I

***Advisor Information*:**
Criminal Justice, Health & Public Services
Thomas Tarker
ttarker@isothermal.edu 828-395-1448
Applied Sciences Building, 1H

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Criminal Justice Technology (A55180)

Total Required Hours 70

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA,SP,SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA,SP,SU	A
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA,SP,SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA,SP,SU	A
	CJC 111	Introduction to Criminal Justice	3	3		FA,SP,SU	A
	CJC 113	Juvenile Justice	3	3		FA,SP,SU	A
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CJC 131	Criminal Law ***	3	3		FA,SP	A
	PSY 150	General Psychology	3	3	Satisfactory placement scores or DRE 097	FA,SP	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA,SP,SU	A
	POL 120	American Government	3	3	Satisfactory placement scores or DRE 097	FA,SP,SU	A
	OR						
	SOC 210	Introduction to Sociology	3	3	Satisfactory placement scores or DRE 097	FA,SP,SU	A
	CJC 212	Ethics and Community Relations	3	3	CO-REQ CJ 210	FA,SP,SU	A
	CJC 112	Criminology	3	3		FA,SP,SU	A
			21				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CJC 221	Investigative Principles ***	3	3		FA,SP	A
	CJC 231	Constitutional Law	3	4		FA,SP	A
	CIS 110	Introduction to Computers	2	3		FA,SP,SU	A
	CJC 121	Law Enforcement Operations ***	3	3		FA,SP,SU	A
	CJC 120	Interviews/Interrogations ***	1	2		FA,SP,SU	A
	CJC ELEC	Elective Choose one of: CJC 151, CJC 222, CJC 223	3	3		FA,SP,SU	A
	HUM	Humanities Elective	3	3	Varies	FA,SP,SU	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CJC 122	Community Policing	3	3		FA,SP	A
	CJC 232	Civil Liability	3	3		FA,SP	A
	CJC 132	Court Procedures	3	3		FA,SP	A
	CJC 141	Corrections	3	3		FA,SP	A
	CJC 225	Crisis Intervention ***	3	3		FA,SP	A
	CJC 255	Issues in Criminal Justice App.	3	3	CJC 111, 221, 231	FA,SP	A
			18				

BLET - Basic Law Enforcement Training (C55120)

	CJ 100	Basic Law Enforcement ***	19				

***Advisor Information*:**
Early Childhood Degree -
Health & Public Services
Dr. Alice L. McCluney
amccluney@isothermal.edu
828-395-1444

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Early Childhood Education Degree (A55220)

Total Required Hours 67/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 119	Intro to Early Childhood Education	4	4	None	FA,SP	A,D,C
	EDU 131	Child, Family, & Community	3	3	None/DRE 097	FA	A,D
	EDU 144	Child Development I	3	3	None/DRE 097	FA	A,D
	EDU 151	Creative Activities	3	3	None/DRE 097	FA	A,D,C
	EDU 252	Math & Science Activities	3	3	None/DRE 098	FA	A
	ACA 115	Success and Study Skills	1	2		FA,SP,SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA,SP,SU	A

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 145	Child Development II	3	3	None/DRE 097	SP	A,D
	EDU 146	Child Guidance	3	3	None/DRE 097	SP	A,D,C
	EDU 153	Health, Safety, & Nutrition	3	3	None/DRE 097	SP	A,D
	EDU 184	Ealry Childhood Intro Practicum	2	4	EDU 119/DRE 097	FA,SP	A,D,C
	ELECTIVE		3	3	Varies	FA, SP, SU	A
	EDU 259	Curriculum Planning	3	3	EDU 119/DRE 098	SP	A,D,C

17

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	3		FA,SP,SU	A,D
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA,SP,SU	A,D
	AST 111/111A, BIO 111, CHM 131/131A, CHM 151, MAT 110, MAT 143, MAT 152, MAT 171, or PHY 151	Math or Natural Science	3	4	Varies	FA,SP,SU	A,D

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 214	Early Childhood Interm Practicum	4	10	EDU 119, EDU 144, EDU 146/DRE 098	FA,SP	A
	EDU 234	Infants, Toddlers, & Twos	3	3	EDU 119/DRE 098	FA	A,D
	ELECTIVE		3	3	Varies	FA, SP, SU	A
	EDU 280	Language & Literacy Activities	3	3	None/DRE 098	FA	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 221	Children with Exceptionalities	3	3	EDU 144 & EDU 145/DRE 098	SP	A,D
	EDU 284	Early Childhood Capstone Pract.	4	10	EDU 119, EDU 144, EDU 145, EDU 146, EDU 151, EDU 184, EDU 214/ DRE 098	FA,SP	A
	ENG 112	Writing/Research	3	3	ENG 111/NONE	FA,SP,SU	A
	HUM ELE	Elective	3	3	Varies	FA,SP,SU	A
	PSY 150	General Psychology	3	3	None	FA,SP,SU	A

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Advisor Information:
Electrical Systems Technology,
Applied Sciences & Engineering
Glenn Gibert
ggibert@isothermal.edu
828-395-1497
Communications Bld/Office Room 145

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Electrical Systems Technology (A35130)

Total Required Hours 69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 112	DC/AC Electricity	5	9		FA	A,D,C
	ELC 113	Residential Wiring	4	8		FA	A,D,C
	ELC 118	National Electrical Code	2	3		FA	A,D
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP	A,D
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
			15				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 114	Commercial Wiring	4	8		SP	A,D,C
	ELC 119	NEC Calculations	2	3		SP	A,D
	ELC 117	Motors & Controls	4	8		SP	A,D,C
	ELC 135	Electrical Machines 1	3	4		SP	A,D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A,D
			16				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 115	Industrial Wiring	4	8		SU	A,D,C
	ELN 231	Industrial Controls	3	5		SU	A,D,C
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A,D
	TECH	Technical Elective	2	4	Varies	FA, SP, SU	A
			12				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 128	Intro to PLC	3	5		FA	A
	ELN 133	Digital Electronics	4	6		FA	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			13				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 228	PLC Applications	4	8	ELC 128	SP	A
	ELC 229	Applications Project	2	4		SP	A
	ELN 229	Industrial Electronics	4	6		SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
			13				

Advisor Information:
Electronic Engineering Technology,
Applied Sciences & Engineering
Steve Hollifield
shollifield@isothermal.edu
828-395-1521
Chester Peeler
828-395-1627
cpeeler@isothermal.edu

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Electronic Engineering Technology (A40200)

Total Required Hours 73-75

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A,D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A,D
	CET 111	Computer Upgrade and Repair	3	5		FA	A,D,C
	EGR 110	Intro to Engineering Technology	2	3		FA	A,D,C
	ELC 138	DC Circuit Analysis	4	6		FA	A,D,C
	ELN 133	Digital Electronics	4	6		FA	A,D,C
	MAT 121**	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA,SP	A,D
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA,SP	A,D
			17/18				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A
	ELC 139	AC Circuit Analysis	4	6		SP	A,D,C
	ELN 131	Analog Electronics I	4	6	ELC 112 or ELC 138	SP	A,D,C
	ELN 232	Introduction to Microprocessors	4	6		SP	A,D,C
	MAT 122***	Algebra/Trigonometry II	3	4	MAT 121	SP	A
	OR						
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 and DRE 098	FA, SP, SU	A
	OR						
	MAT 172	Precalculus Trigonometry	4	5	MAT 171	FA,SP	A
			18/19				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CET 161	Procedural Programming	3	5		SU	A,C
	ELN 152	Fabrication Techniques	2	4		SU	A,C

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ATR 211	Robot Programming	3	5		FA	A,C
	ELC 128	Introduction to PLCs	3	5		FA	A,D,C
	ENG 111	Writing and Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A,D
	PHY 131	Physics of Mechanics	4	5	MAT 121 or MAT 171	FA, SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 132	Electrical Drawings	2	4		SP	A
	ELC 127	Software for Technicians	2	4	ELC 111, 112, or ELC 138	SP	A,C
	PHY 132	Physics of Electricity & Mag	4	5	PHY 131	SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	ELC 228	PLC Applications	4	8	ELC 128	FA	A,C
	ENG 112	Writing and Research in the Discpline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
			18				

**MAT 171 may be substituted for MAT 121 but requires addt'l DMA 070-080 prerequisite
***MAT 172 may be substituted for MAT 122 but requires MAT 171 prerequisite

***MAT 121 & 122 do NOT lead to Calculus. Students planning to pursue a bachelor's degree in engineering should take MAT 171 & 172 instead.**

For additional program information, please contact the Department of Business Sciences at 828/395-1670.

You may also contact the following program instructors:
Mr. Rick Childress, 828/395-1641, rchildress@isothermal.edu
Mr. Scott Hutchins, 828/395-1986, shutchins@isothermal.edu

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Entrepreneurship (A25490)

Total Required Hours 67/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	BUS 110	Introduction to Business	3	3		FA	A
	BUS 139	Entrepreneurship I	3	3		FA	A, C1
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, C2
	ETR 220	Innovation & Creativity	3	3		FA	A, C1
	BUS 115	Business Law I	3	3		FA	A

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Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WEB 140	Web Development Tools	3	3		SP	A
	BUS 137	Principles of Management	3	3		SP	A, C1
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	ETR 230	Entrepreneurial Marketing	3	3		SP	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A

18/19

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 120	Principles of Financial Accounting	4	5		FA, SP, SU	A, C1, C2
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A
	CTS 130	Spreadsheet	3	4	CIS 110	FA, SP	A
	COM 231	Public Speaking	3	3		FA, SP, SU	A
		Program Elective	3	3	Varies	FA, SP, SU	A

16/17

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACC 121	Principles of Managerial Acct	4	5	ACC 120	FA, SP, SU	A, C2
	BUS 260	Business Communication	3	3	ENG 110 or ENG 111	SP	A
	ETR 240	Funding for Entrepreneurs	3	3	ACC 120	SP	
	ECO 251	Principles of Microeconomics	3	3		FA, SP	A
	BUS 245	Entrepreneurship II	3	3	BUS 139	SP	A
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A

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Program Electives (choose 1 class)

ACC 129 *BUS 153* *BUS 253* *CTS 115* *MKT 120* *MKT 220 ACC 180 (C2)* *BUS 230* *BUS 255* *CTS 125* *MKT 123*

A A25490 Entrepreneurship Degree
C C25490 Entrepreneurship Certificate

General Occupational Technology
Advisor: **Tina M Porter**
828-395-1621
tporter@isothermal.edu

General Occupational Technology – (A55280)

Students Name: _____

Students ID#: _____

Student Email Address: _____

Student Current Phone Information: _____

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date:* _____
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle, and Patriot Port accounts*

Step 2: Developmental courses must be completed or exempted:

MATH		MATH		ENGLISH/READING	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040*		*DRE 097*	
DMA 020		*DMA 050*		*DRE 098*	

Step 3: General Education Courses: Must complete all below

		Credit hours	*Grade*	*Semester*
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
ENG 112	Writing/Research in Disciplines	3.0		
BIO 168	Anatomy & Physiology I	4.0		
BIO 169	Anatomy & Physiology II	4.0		
PSY 150	General Psychology	3.0		
PSY 241	Developmental Psychology	3.0		
CIS 110	Introduction to Computers	3.0		
MED 121	Medical Terminology I	3.0		
MED 122	Medical Terminology II	3.0		
MAT 143	Quantitative Literacy	3.0		
Humanities Requirement**		3.0		

****Choose one of these: ART 111, HUM 115, MUS 110, MUS 112, PHI 240 and PHI 241**

Step 4: Choose ONLY one Track

RN Track	LPN Track	Surg. Tech Track	Health Transfer Track
BIO 111	BIO 175 or 275	BIO 155	BIO 111
BIO 175 or 275	BIO 155	BIO 175 or 275	MAT 152
BIO 155	ISC 121	ISC 121	SOC 210

Step 5: Other Major Required Courses: *Must choose 21 credit hours*

Course	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*
BIO 111	4	CHM 131	3	CTS 130	3	ISC 121	3	PSY 281	3	SPA 120	3
BIO 155	3	CHM 131A	1	HEA 110	3	MAT 152	4	SOC 210	3	SPA 181	1
BIO 163	5	CHM 132	4	HEA 112	2	OST 136	3	SOC 213	3	WEB 110	3
BIO 175	3	CHM 151	3	HEA 120	3	OST 148	3	SOC 220	3		
BIO 275	4	COM 231	3	ISC 110	1	OST 149	3	SPA 111	3		

Total Required Credit hours: 66-68

Step 6: Must have a Grade Point Average of 2.00, your GPA currently: _____ Date: _____

Step 7: Apply for Graduation!

Additional Humanities Course Selection: ***Can only take one humanities for the entire program***

ART 114	ENG 241	HUM 120	HUM 211	PHI 215
ART 115	ENG 242	HUM 122	HUM 212	REL 110
ENG 231	ENG 261	HUM 130	MUS 113	REL 111
ENG 232	ENG 262	HUM 170	MUS 114	REL 211
				REL 212

Other Courses taken:

_____ _____ _____

General Occupational Technology
Advisor: **Tina M Porter**
828-395-1621
tporter@isothermal.edu

General Occupational Technology- Diploma (D55280)

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date: _____*
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle, and Patriot Port accounts.*

Step 2: Developmental courses must be completed or exempted:

MATH		***MATH***		**ENGLISH/READING**	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040*		*DRE 097*	
DMA 020		*DMA 050*		*DRE 098*	

Step 3: General Education Courses: Must Completed all below

		Credit hours	*Grade*	*Semester*
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
BIO 168	Anatomy & Physiology I	4.0		
BIO 169	Anatomy & Physiology II	4.0		
PSY 150	General Psychology	3.0		
PSY 241	Developmental Psychology	3.0		
CIS 110	Introduction to Computers	3.0		

Step 4: Other Major Required Courses: Must choose *18 credit hours*

Course	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*	*Course*	*Credit hr.*
BIO 111	4	CHM 131	3	CTS 130	3	ISC 121	3	OST 136	3	SOC 213	3
BIO 155	3	CHM 131A	1	HEA 110	3	MAT 143	3	OST 148	3	SOC 220	3
BIO 163	5	CHM 132	4	HEA 112	2	MAT 152	4	OST 149	3	SPA 111	3
BIO 175	3	CHM 151	3	HEA 120	3	MED 121	3	PSY 281	3	SPA 120	3
BIO 275	4	COM 231	3	ISC 110	1	MED 122	3	SOC 210	3	SPA 181	1
										WEB 110	3

Total Required Credit hours: 39

Step 5: Must have a Grade Point Average of 2.00, your GPA currently: _____ Date_____

Step 6: Apply for Graduation!

Other Courses taken that maybe from General Occupational Tech. (*Advisor Only)*

_____ _____ _____
_____ _____ _____
_____ _____ _____

General Occupational Technology
Advisor: **Tina M Porter**
828-395-1621
tporter@isothermal.edu

General Occupational Technology- Certificate - (*C55280)*

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date: _____*
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle and Patriot Port accounts*

Step 2: Developmental courses must be completed or exempted:

MATH		**MATH**		**ENGLISH/READING**	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040*		*DRE 097*	
DMA 020		*DMA 050*		*DRE 098*	

Step 3: General Education Courses:

		Credit Hours	*Grade*	*Semester*
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
BIO 168	Anatomy & Physiology I	4.0		
BIO 169	Anatomy & Physiology II	4.0		
PSY 150	General Psychology	3.0		
PSY 241	Developmental Psychology	3.0		

Step 4: Must have a Grade Point Average of 2.00, your GPA currently: _____ Date: _____

Step 5: Apply for graduation!

Other Courses taken that maybe from General Occupational Tech. (*Advisor Only)*

_____ _____ _____
_____ _____ _____
_____ _____ _____

Pre-Associated Degree Nursing
Advisor: **Tina M Porter**
828-395-1621
tporter@isothermal.edu

Pre-ASSOCIATES DEGREE NURSING – (A55280)

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date: _____*
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle, and Patriot Port accounts*
- ☐ *Attend a Health Science Information Meeting (must be attended each year and before deadline date) Date: _____*

Step 2: Developmental courses must be completed or exempted before deadline date:

MATH		***MATH***		**ENGLISH/READING**	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040*		*DRE 097*	
DMA 020		*DMA 050*		*DRE 098*	

Step 3: Pre-requisites must be completed before deadline date:

NOTE: *If students had high school biology and/or chemistry with a grade of "B" or higher, students will be exempted in this area, otherwise will have to take on the college level.*

		Credit hours	*Grade*	*Semester*
BIO 111	General Biology I (***encouraged, unless already have BIO 168)***	4.0		
CHM 131 & 131A	General Chemistry & Lab	4.0		

Step 4: General Education Courses:

		Credit hours	Grade	Semester
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
ENG 112	Writing & Research in Discovery	3.0		
PSY 150	General Psychology	3.0		
PSY 241	Developmental Psychology	3.0		
BIO 168	Anatomy & Physiology I	4.0		
BIO 169	Anatomy & Physiology II	4.0		
BIO 175*	General Microbiology	3.0		
BIO 275*	Microbiology	4.0		
Humanities Requirement**		3.0		

*** Only take one, Not both.**

**** Choose one of these: ART 111, HUM 115, MUS 110, MUS 112, PHI 240 and PHI 241**

Step 5: Must have a Grade Point Average of 2.50, your GPA is currently _____ Date: _____

Step 6: Must be on the NC registry for Certified Nursing Assistant before first day of class, if accepted

Nurse Aid: I II Expiration Date: _____ License #: _____

Step 7: NOTE: Pick up Packet & Reference forms before deadline date that is suggested.

Suggested Deadline date: _____ If accepted, Semester begins: _____

Other Courses taken that maybe from General Occupational Tech. (*Advisor only*)

_____ _____ _____

_____ _____ _____

Pre-License Practical Nursing Advisor:
Tina M Porter
828-395-1621
tporter@isothermal.edu

Pre-License Practical Nursing
(A55280)

Students Name: _____
Students ID#: _____
Student Email Address: _____
Student Current Phone Information: _____

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date:* _____
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle, and Patriot Port accounts*
- ☐ *Attend a Health Science Information Meeting (must be attended each year and before deadline date) Date:* _____

Step 2: Developmental courses must be completed or exempted before deadline date:

MATH		MATH		ENGLISH/READING	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040*		*DRE 097*	
DMA 020		*DMA 050*		*DRE 098*	

Step 3: General Education Courses:

		Credit hours	Grade	Semester
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
PSY 150	General Psychology	3.0		
BIO 168	Anatomy & Physiology I	4.0		
BIO 169	Anatomy & Physiology II	4.0		
BONUS POINTS:				
PSY 241	Developmental Psychology	3.0		
MED 121	Medical Terminology I	3.0		
MED 122	Medical Terminology II	3.0		
BIO 155	Nutrition	3.0		

Step 4: Must have a Grade Point Average of 2.00, your GPA is currently _____ Date: _____

Step 5: Must be on the NC registry for Certified Nursing Assistant before first day of class, if accepted

Nurse Aid: I II Expiration Date: _____ License #: _____

Step 6: NOTE: Pick up Packet & Reference forms before deadline date that is suggested

Suggested Deadline Date: _____ **If accepted, Semester begins:** _____

Other Courses taken that maybe from General Occupational Tech. (*Advisor Only*)

_____ _____ _____
_____ _____ _____
_____ _____ _____

Pre-Surgical Technology Advisor:
Tina M Porter
828-395-1621
tporter@isothermal.edu

Pre- Surgical Technology – (A55280)

Step 1: All items below must be completed by deadline date:

- ☐ *Complete the college application https://www.isothermal.edu/admissions/index.html*
- ☐ *Submit official high school or GED transcripts to the admissions office*
- ☐ *Submit official college transcripts to the admissions office*
- ☐ *Completed or be exempted from the Placement test, Date: _____*
- ☐ *Meet with Advisor, Register for classes*
- ☐ *Sign into your Student email, Moodle, and Patriot Port accounts*
- ☐ *Attend a Health Science Information Meeting (must be attended each year and before deadline date) Date: _____*

Step 2: Developmental courses must be completed or exempted before deadline date:

MATH		***M*ATH**		**ENGLISH/READING**	
MAT 050		*DMA 030*		*DRE 096*	
DMA 010		*DMA 040**		*DRE 097*	
DMA 020		*DMA 050**		*DRE 098*	

**** DMA that are not required for the program.***

Step 3: General Education Courses:

		Credit Hours	*Grade*	*Semester*
ACA 122	College Transfer Success	1.0		
ENG 111	Writing & Inquiry	3.0		
CIS 110	Introduction to Computers	3.0		
BIO 163	Basic Anatomy & Physiology	4.0		
BIO 175*	General Microbiology	3.0		
BIO 275*	Microbiology	4.0		
BIO 168**	Anatomy & Physiology I	4.0		
BIO 169**	Anatomy & Physiology II	4.0		
MED 121***	Medical Terminology I	3.0		
MED 122***	Medical Terminology II	3.0		

*** Choose only one of these, do not take both.**
**** Director prefers BIO 168 & 169**
*****Director encourages students to complete:**

Step 4: Must have a Grade Point Average of 2.00, your GPA currently: _____ Date: _____

Step 5: CPR Requirement:

American Heart Association **only,** Basic Life Support Date Expires: _____

Step 6: NOTE: Pick up Packet before deadline date that is suggested

Suggested Deadline Date: _____ If accepted, Semester begins: _____

Other Courses taken that maybe from General Occupational Tech. (*Advisor Only*)

_____ _____ _____ _____
_____ _____ _____ _____
_____ _____ _____ _____

******All SUR courses will be on the campus of Cleveland Community College******

Advisor Information:
Industrial Systems Technology,
Applied Sciences & Engineering
Lee Roach, 828-395-1628
lroach@isothermal.edu
Applied Sciences Builidng, 1G

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Industrial Systems Technology (A50240)

Total Required Hours 74

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	BPR 111	Blueprint Reading	2	3		FA, SP, SU	A, C
	TECH	Technical Elective	3	4	Varies	FA, SP, SU	A
	Choose one math from below:						
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A
	MAC 141	Machine Applications I	4	8		FA	A
			13/14				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	AHR 160	Refrig. Cert.	1	1		SP	A
	AHR 120	HVACR Maint.	2	4		SP	A, C
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A
	MAC 142	Machine Applications II	4	8	MAC 141	SP	A
	TECH	Technical Elective	3	5	Varies	FA, SP, SU	A
			16				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A, C
	ELC 115	Industrial Wiring	4	8		SU	A, C
	MNT 110	Intro to Maint. Proc.	2	4		SU	A
	MNT 222	Ind. Sys. Schematics	2	3		SU	A
	WLD 112	Basic Welding Proc.	2	4		SU	A, C
			13				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	ELC 112	DC/AC Electricity	5	9		SP	A
	ELC 128	Intro to PLC	3	5		SP	A, C
	PLU 111	Intro to Plumbing	2	4		SP	A, C
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OR						
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	AHR 130	HVAC Controls	3	4	ELC 111 or ELC 112	SP	A
	PLU 211	Commercial Plumbing	3	4		FA, SP, SU	A
	TECH	Technical Elective	4	5	Varies	SP	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
			16				

Pipefitting Technology (C5024002)
WLD 112
PFT 111
WLD 117
WOL 110

Advisor Information:
***Dana Anderson*, Web Programming Instructor**
danderson@isothermal.edu
828-395-1523

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Information Technology - Computer Programming and Development (A25590C)

Total Required Hours 68/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Expository Writing	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	CIS 115	Intro to Programming & Logic	3	5	Satisfactory placement scores or DMA 010, 020, 030, 040	FA	A, C
	CIS 110	Intro to Computers	3	4		FA, SP	A
	ACA 122	College Transfer Success	1	1		FA, SP, SU	A
	CTI 110	Web, PGM, & Database Foundation	3	3		FA, SP	A
	CTI 140	Virtualization Concepts	3	5		FA	A
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	WEB 115	Web Markup & Scripting (Elective)	3	4		SP	A, C
	CTS 115	Info Sys Business Concepts	3	4		SP	A
	WEB 140	Web Development Tools (Elective)	3	4		FA, SP	A
	CSC 139	Intro Visual Basic	3	5		SP	A, C
	NET 125	Networking Basics	3	5		SP	A
			18				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CTI 120	Network & Security Foundation	3	5		SP	A
	WEB 182	PHP Programming	3	4	Web 115	FA	A
	CSC 134	Intro C++ Programming	3	5		FA	A, C
	CSC 239	Adv Visual Basic	3	5	CSC 139	FA	A
	NET 126	*Routing Basics (Group 2)*	*3*	*3*	*NET 125*	*FA*	*A*
			18				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WEB 250	Database Driven Websites(Elective)	3	4	Web 182	SP	A
	ECO 251	Principles of Miroeconomics	3	3		FA, SP	A
	CTS 240	Project Management	3	3		FA	A
	WBL 110	World of Work	1	1	Last Semester	FA, SP, SU	A
	CSC 234	Adv C++ Programming	3	5	CSC 134	SP	A
	HUM	Humanities Elective	3		Varies	FA, SP, SU	A
			16				

Choose <u>one</u> (3 hrs)

Registered		Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MAT 110	Mathematical Measurement & Lit	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A

NOTE: *Summer offerings subject to change* *Revised: 3/21/17 kf*

Computer Programming - Degree "A"
Computer Programming - Certificate "C"

Advisor Information:
***Dana Anderson*, Web Programming Instructor**
danderson@isothermal.edu
828-395-1523
Business Sciences, Room 104

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Information Technology - IT Business Support (A25590I)

Total Required Hours 65/66

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Expository Writing	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	D
	CIS 115	Intro to Programming & Logic	3	5	Satisfactory placement scores or DMA 010, 020, 030, 040	FA	D
	ACA 122	College Transfer Success	1	1		FA, SP, SU	D
	MAT - See Below						
	CTI 110	Web, PGM, & Database Foundation	3	3		FA, SP	D
	HUM	Humanities Elective	3		Varies		D

13

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DBA 110	Database Concepts	3	5		SP	D, C
	CTS 130	Spreadsheets	3	4		SP	D, C
	CIS 110	Intro to Computers	3	4		FA, SP	D, C
	WEB 115	Web Markup & Scripting	3	4		SP	D
	CTS 115	Info Sys Business Concepts	3	4		SP	D
	Web 140	Web Development Tools (Elective)	3	4		FA, SP	D, C

15

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BUS 110	Introduction to Business	3	3		FA, SP, SU	D
	BUS 115	Business Law	3	3		FA	D
	BUS 137	Principles of Management	3	3		FA, SP	D
	CSC 139	Adv Visual Basic (Elective)	3	4		FA	D
	CTI 120	Network Security Foundation	3	5		FA	D

15

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CSC 139	Intro Visual Basic (Elective)	3	5		SP	D
	COM 231	Public Speaking	3	3		FA, SP, SU	D
	WEB 285	Emerging Web Technologies	3	3		FA, SP	D
	CTS 240	Project Management	3	3		SP	D
	WBL 110	World of Work	1	1	Last Semester	FA, SP, SU	D
	NET 125	Networking Basics (Elective)	3	3		FA, SP	D

16

Choose <u>one</u> (3 hrs)

Registered		Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MAT 110	Mathematical Measurement & Lit	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	D
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	D
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	D

***NOTE:** Summer offerings subject to change* *Revised: 4/15*

IT Business Support - Diploma "D"

Blain R. Jones
Computer Information/Networking Technology
Lead Instructor
Business Sciences, Rm 132
bjones@isothermal.edu, 828-395-1459

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Information Technology - Networking Management (A25590N)

Total Required Hours 69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	CTI 110	Web, Pgm, & DB Foundation	3	4		FA	A
	CTI 120	Network & Sec Foundation	3	4		FA	A
	ENG 111	Expository Writing	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	NET 125	Networking Basics	3	5		FA	A, C
	NOS 110	Operating System Concepts	3	5		FA	A, C
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CTS 115	Info Systems Business Concept	3	3		SP	A
	CTS 120	Hardware/Software Support	3	5		SP	A
	MAT 152	Statistical Methods I	3	5		FA,SP,SU	A
	NOS 230	Windows Admin I	3	4		FA	A
	NET 126	Routing Basics	3	5	NET 125	SP	A, C
			15				

Registered	1st Summer	Course Name	Credit Hours	Credit Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Introduction to Computers	**3**	**4**		FA,SP,SU	A
	HUM	Humanities/Fine Arts	**3**	**3**	Varies	FA,SP,SU	A
			6				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 115	Introduction to Program & Logic	3	5	Satisfactory placement scores or DMA 010, 020, 030, 040	FALL	A
	COM 231	Public Speaking	3	3		FA,SP,SU	A
	NET 225	Routing and Switching I	3	5	NET 126	FA	A, C
	NOS 120	Linux/UNIX Single User	3	4	NOS 110	FA	A
		Major Course Elective	3	3	Varies	FA,SP	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CTS 240	Project Management	3	4		SP	A, C
	NET 226	Routing and Switching II	3	5	NET 225	SP	A, C
	ECO 252	Principles of Macroeconomics	3	3		FA,SP	A
	NOS 220	Linux/Unix Admin I	3	4	NOS 120	SP	A
	WBL 110	World of Work	1	1		FA,SP	A
		Major Course Elective	3	3	Varies	FA,SP	A
			16				

Networking Technology - Degree "A" 25 34 0

Networking Technology - Certicate "C" 25 34 0

Advisor Information:
***Dana Anderson*, Web Programming Instructor**
danderson@isothermal.edu
828-395-1523

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Information Technology - Web administration and Design (A25590W)

Total Required Hours 68/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Expository Writing	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	CIS 115	Intro to Programming & Logic	3	5	Satisfactory placement scores or DMA 010, 020, 030, 040	FA	A, C
	CIS 110	Intro to Computers	3	4		FA, SP	A
	ACA 122	College Transfer Success	1	1		FA, SP, SU	A
	CTI 110	Web, PGM, & Database Foundation	3	3		FA, SP	A
	WEB 210	Web Design	3	4		FA	A, C
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WEB 115	Web Markup & Scripting	3	4		SP	A, C
	CTS 115	Info Sys Business Concepts	3	4		SP	A
	WEB 140	Web Development Tools	3	4		FA, SP	A, C
	CSC 139	Intro Visual Basic (Elective)	3	5		SP	A
	NET 125	Networking Basics (Elective)	3	5		SP	A
			15				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	NOS 120	Linux/UNIX/Single User	3	5		FA	A
	CTI 120	Network & Security Foundation	3	5		FA	A
	WEB 182	PHP Programming	3	4	WEB 115	FA	A
	CSC 239	Adv Visual Basic (Elective)	3	5	CSC 139	FA	A
	CSC 134	*C++ Programming (Group 2)*	*3*	*5*		*FA*	*A*
	NET 126	*Routing Basics (Group 2)*	*3*	*4*		*FA*	*A*
			18				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WEB 250	Database Driven Websites	3	4		SP	A
	ECO 251	Principles of Miroeconomics	3	3		FA, SP	A
	CTS 240	*Project Management (Group 2)*	*3*	*3*		*SP*	*A*
	WBL 110	World of Work	1	1	Last Semester	FA, SP, SU	A
	HUM	Humanities Elective	3		Varies		A
	COM 231	Public Speaking	3	3		FA, SP, SU	A
			16				

Choose <u>one</u> (3 hrs)

Registered		Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MAT 110	Mathematical Measurement & Lit	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, & DRE 098	FA, SP, SU	A

NOTE: *Summer offerings subject to change* *Revised 3/21/17 kf*

Web Technologies - Degree "A"
Web Technologies - Certificate "C"

***Advisor Information*:**
Manufacturing Technology
Lee Roach, 828-395-1628
Applied Sciences & Engineering
lroach@isothermal.edu
Applied Sciences, 1G

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Manufacturing Technology - Track A (A50320)

Total Required Hours 73

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	MAC 114	Intro to Metrology	2	2		FA	A, C
	EGR 110	Intro to Engneering	2	3		FA	A
	ISC 132	Manf. Quality Control	3	5		FA	A
	MAC 121	Intro to CNC	2	2		FA	A, C
	ELC 111	Intro to Electricity	3	4		FA	A
	MEC 181	Intro to CIM	2	2		FA	A
			15				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	MEC 231	Comp.-Aided Manufacturing	3	5		SP	A, C
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	MEC 161	Manf. Process I	3	3		SP	A, C
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	
			15/16				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A
	WLD 112	Basic Welding Processes	2	4		SU	A
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A, C
	MEC 232	Comp.-Aided Manufacturing II	3	5	MEC 231	SP	A, C
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP	A
			14				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 128	Intro to PLC	3	5		FA	A
	DFT 111	Tech. Drafiting I	2	4		FA	A, C
	DFT 111A	Tech. Drafting I Lab	1	3		FA	A, C
	DFT 151	CAD I	3	5		FA	A, C
	MAC 141	Machining Applications I	4	8		FA	A
	MAC 141A	Machining Applications I Lab	2	6		FA	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	DFT 112	Tech. Drafiting II	2	4		FA	A
	DFT 112A	Tech. Drafting II Lab	1	3		FA	A
	MEC 180	Engineering Matls	3	5		SP	A, C
	DFT 152	CAD II	3	5		SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP	A
			15				

Certificate CNC - C5032001
MAC 121
DFT 151
MAC 122
MAC 124
MEC 231
MEC 232

Certificate Manufacturing - C5032002
DFT 111
ISC 121
MAC 141
MAC 121
MEC 161
MEC 180
DFT 111a

Advisor Information:
Manufacturing Technology - Machining Track
Applied Sciences & Engineering
Lee Roach, 828-395-1628
lroach@isothermal.edu
Applied Sciences Building, 1G

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Manufacturing Technology - Track B Machining (A50320)

Total Required Hours 73

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	BPR 111	Print Reading	2	3		FA	A
	MAC 122	CNC Turning	2	4		SP	A, C
	MAC 124	CNC Milling	2	4		SP	A, C
	MAC 121	Intro to CNC	2	2		FA	A, C
	MAC 141	Machining Applications I	4	8		FA	A
	MAC 141A	Machining Applications I Lab	2	6		FA	A
			15				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MAC 222	Adv. CNC Turning	2	4	MAC 122	SP	A
	MAC 224	Adv. CNC Milling	2	4	MAC 124	SP	A
	MAC 142	Machining Applications II	4	8	MAC 141	SP	A
	MAC 142A	Machining Applications II Lab	2	6	MAC 141	SP	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060		
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121		
			13/14				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A, C
	MAC 233	Applications in CNC Machining	6	14	MAC 142	SU	A
			15				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	MAC 114	Intro to Metrology	2	2		FA	A, C
	TECH	Technical Elective	2	3	Varies	FA	A
	ISC 132	Manf. Quality Control	3	5		FA	A
	DFT 111	Tech. Drafiting I	2	4		FA	A, C
	DFT 111A	Tech. Drafting I Lab	1	3		FA	A, C
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	TECH	Technical Elective	3	5	Varies	SP	A, C
	MEC 161	Manf. Process I	3	5		SP	A, C
	MEC 180	Engineering Matls	3	5		SP	A, C
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP	A
			15				

Certificate CNC - C5032001
- MAC 121
- DFT 151
- MAC 122
- MAC 124
- MEC 231
- MEC 232

Certificate Manufacturing - C5032002
- DFT 111
- ISC 121
- MAC 141
- MAC 121
- MEC 161
- MEC 180
- DFT 111a

Bobbi Hodge, *Instructor*
Applied Sciences & Engineering Technology
bhodge@isothermal.edu 828-395-4235
AS&ET 1B

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Mechanical Drafting Technology - Track A Architectual (A50340)

Total Required Hours 72

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DFT 111	Technical Drafting I	2	4		FA	A, D, C
	DFT 111A	Tehncial Drafing I Lab	1	3		FA	A, D, C
	DFT 151	CAD I	3	5		FA	A, D, C
	ARC 111	Intro to Arch Technology	3	7		Fall	A, D
	ACA 115	Success & Study Skills	1	2		FA	A
	OR						
	ACA 122	College Transfer Success	1	2		FA	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A
	MNT 222	Industrial Systems Schematics	2	3		Fall	A, D

15

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DFT 112	Technical Drafting II	2	4	DFT 111/111A	SP	A, D, C
	DFT 112A	Technical Drafting II Lab	1	3	DFT 111/111A	SP	A, D, C
	DFT 152	CAD II	3	5		SP	A, D, C
	ARC 114	Architectural CAD	2	4		SP	A, D
	MEC 180	Engineering Materials	3	5		SP	A, D, C
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A, D
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D

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Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	SOC SCI	Social Science Elect.	3	3	Varies	FA, SP, SU	A
	TECH	Technical Elective	2	3	Varies	FA, SP, SU	A, D
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DDF 211	Design Process I	4	7		FA	A
	DFT 153	CAD III	3	5		FA	A, D
	CST 111	Construction I	4	6		FA	A
	SST 110	Intro to Sustainability	3	3		FA	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DDF 221	Design Drafting Project	2	4		SP	A
	DFT 154	Intro to Solid Modeling	3	5	DDF 221	SP	A, D
	CST 112	Construction II	4	6		SP	A
	SST 140	Green Building & Design	3	3		SP	A
	MEC 161	Manufacturing Processes	3	3		SP	A, D

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Bobbi Hodge, *Instructor*
Applied Sciences & Engineering Technology
bhodge@isothermal.edu 828-395-4235
AS&ET 1B

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Mechanical Drafting Technology - Track B Mechanical (A50340)

Total Required Hours 72

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DFT 111	Technical Drafting I	2	4		FA	A, D, C
	DFT 111A	Tehncial Drafing I Lab	1	3		FA	A, D, C
	DFT 151	CAD I	3	5		FA	A, D, C
	MAC 121	Intro to CNC	2	2		FA	A, D
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A
	MNT 222	Industrial Systems Schematics	2	3		FA	A, D
			14				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DFT 112	Technical Drafting II	2	4	DFT 111/111A	SP	A, D, C
	DFT 112A	Technical Drafting II Lab	1	3	DFT 111/111A	SP	A, D, C
	DFT 152	CAD II	3	5		SP	A, D, C
	MEC 231	Comp.-Aided Manufacturing	3	5		SP	A, D
	MEC 180	Engineering Materials	3	5		SP	A, D, C
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A, D
			15				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DFT 121	Intro to GD&T	2	3		SU	A, D
	HYD 110	Hydraulics/Pneum.	3	5		SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	TECH	Technical Elective	2	3	Varies	SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
			13				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DDF 211	Design Process I	4	7		FA	A
	DFT 153	CAD III	3	5		FA	A, D
	MAC 141	Machining Applications I	4	8		FA	A
	MAC 141A	Machining Applications I Lab	2	6		FA	A
	ISC 132	Mfg. Quality Control	3	5		FA	A
			16				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	DDF 221	Design Drafting Project	2	4		SP	A
	DFT 154	Intro to Solid Modeling	3	5	DDF 221	SP	A, D
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	MEC 161	Manufacturing Processes	3	3		SP	A, D
			14				

Advisor Information
Mechanical Engineering Technology Degree
Applied Sciences & Engineering Technology, 1G
Lee Roach, 828-395-1628

Academic Development (If Applicable)		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Mechanical Engineering Technology - Track A (A40320)

Total Required Hours 75/76

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	MAC 114	Intro to Metrology	2	2		FA	A
	EGR 110	Intro to Engneering	2	3		FA	A
	ISC 132	Manf. Quality Control	3	5		FA	A, C
	MAC 121	Intro to CNC	2	2		FA	A
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A
	MEC 181	Intro to CIM	2	2		FA	A
			15/16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	MEC 231	Comp.-Aided Manufacturing	3	5		SP	A, C
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP	A
	MEC 161	Manf. Process I	3	3		SP	A, C
	MAT 122	Algebra/Trigenometry	3	4	MAT 121	FA, SP, SU	A
	OR						
	MAT 152	Statistical Methods I	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
	OR						
	MAT 172	Precalcuclus Trigonometry	4	5	MAT 171	FA, SP, SU	A
			15/16				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A, C
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A
	MEC 232	Comp.-Aided Manufacturing II	3	5		SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			12				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	SP	A
	DFT 154	Intro to Solid Modeling	3	5		FA	A
	DFT 151	CAD I	3	5		FA	A, C
	MAC 141	Machining Applications I	4	8		FA	A
			13				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	EGR 250	Statics and Strengths of Matl's	5	7	MAT 121 or 171	FA	A
	MEC 180	Engineering Matl's	3	5		SP	A, C
	PHY 131	Physics -Mechanics	4	5	MAT 121 or 171	SP	A
	OR						
	PHY 151	College Physics I	4	5	MAT 171	SP	A
			15				

Registered	2nd Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	MEC 270	Machine Design	4	6		SU	A
	MEC 271	Machine Design Project	1	3	Co-req. MEC 270	SU	A
			5				

Advisor Information:
Mechanical Engineering Technology-Mechatronics
Applied Sciences & Engineering Technology, 1G
Lee Roach, 828-395-1628
lroach@isothermal.edu

Academic Development (If Applicable)					
		DMA 010		DMA 050	
DRE 096		DMA 020		DMA 060	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Mechanical Engineering Technology - Track B Mechatronics (A40320)

Total Required Hours 75/76

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	ELC 112	DC/AC Electricity	5	9		FA	A
	ELN 133	Digital Electronics	4	6		FA	A
	ISC 132	Man. Quality Control	3	5		FA, SP, SU	A, C
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A

16/17

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	ELN 229	Industrial Electronics	4	6		SP	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A
	MEC 161	Manf. Process I	3	3		SP	A, C

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Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A, C
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ELC 128	Intro to PLC	3	5		FA	A
	DFT 151	CAD I	3	5		FA	A, C
	PHY 131	Physics-Mechanics	4	5	MAT 121 or 171	FA	A
	OR						
	PHY 151	College Physics	4	5	MAT 171	FA	A
	MAC 141	Machining Applications I	4	8		FA	A

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Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	EGR 285	Design Project	2	4		Last	A
	PHY 132	Physics Elec/Magnet.	4	5	PHY 131	SP	A
	EGR 250	Statics and Strengths of Matl'	5	7	MAT 121 or 171	FA	A
	MEC 180	Engineering Matls	3	5		SP	A, C
	DFT 154	Intro to Solid Modeling	3	5		FA	A

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Lee Roach, *Instructor*
Applied Sciences & Engineering Technology
lroach@isothermal.edu 828-395-1628
AS&ET 1G

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Mechanical Engineering Technology - Track C Drafting (A40320)

Total Required Hours 75/76

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	DFT 151	CAD I	3	5		FA	A, C
	DFT 111	Tech. Drafting I	2	4		FA	A
	DFT 111A	Tech. Drafting I Lab	1	3		FA	A
	MAC 121	Intro to CNC	2	2		FA	A
	ISC 132	Manf. Quality Control	3	5		FA	A, C
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP, SU	A
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP, SU	A

15/16

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A
	MEC 231	Comp.-Aided Manufacturing	3	5		SP	A, C
	DFT 112	Tech. Drafting II	2	4		SP	A
	DFT 112A	Tech. Drafting II Lab	1	3		SP	A
	DFT 152	CAD II	3	5		SP	A
	MEC 161	Manf. Process I	3	3		SP	A, C

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Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	HYD 110	Hydraulics/Pneum.	3	5		SU	A, C
	ISC 121	Environ. Health & Safety	3	3		FA, SP, SU	A
	DFT 121	Intro to GD&T	2	3		SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A

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Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP, SU	A
	DDF 211	Design Process I	4	7		FA	A
	PHY 131	Physics-Mech.	4	5	MAT 121 or 171	FA, SP	A
	OR						
	PHY 151	Coll. Phy.	4	5	MAT 171	FA, SP	A
	MAC 141	Machining Applications I	4	8		FA	A

18

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	DFT 154	Intro to Solid Modeling	3	5		SP	A
	EGR 250	Statics and Strengths of Matl'	5	7	MAT 121 or 171	SP, SU	A
	MEC 180	Engineering Matls	3	5		SP	A, C
	DDF 221	Design Drafting Proj.	2	4	DFT 111, 112, and 151	SP	A

16

Advisor Information:
Tiffany Cooper, CPC
Medial Office Administration Lead Instructor
Office: Business Sciences, Room 110

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Student ID#

Medical Office Administration - Healthcare Administration (A25310H)

Total Required Hours 68-71

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D
	MED 121	Medical Terminology I	3	3		FA, SP, SU	A, D, C1
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OST 164	Office Editing	3	3		FA	A, D
	OST 148	Med Ins & Billing	3	3		FA	A, D, C12
			16	20			

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	HUM	Humanities Elective	3	3	Varies		A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	OST 134	Text Entry & Formatting	3	3	Ost 130 or skills	FA, SP	A, D
	MED 122	Medical Terminology II	3	3	MED 121	FA, SP, SU	A, D, C1
	OST 149	Medical Legal Issues	3	3		SP	A, D
	CIS 110	Introduction to Computers	3	3		FA, SP, SU	A, D, C12
			18	18			

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	HMT 110	Intro to Healthcare Mgmt	3	3		FA	A, C2
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	BIO 163	Basic Anatomy & Physiology	4	6	Satisfactory placement scores or DRE 097	FA	A
	OR						
	MAT 110	Math Measurement & Literacy	3	3	Satisfactory placement scores or DMA 010, 020, 030	FA	A
	CTS 130	Spreadsheet	3	3		FA, SP, SU	A
	Elective	Elective	3	3	Varies		A
	BUS 153	Human Resource Mgmt	3	3		FA	A, C2
			19 / 18	21 / 18			

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	HMT 211	Long Term Care Admin	3	3		SP	A, C2
	OST 184	Records Management	3	3		SP	A
	OST 289	Office Admin Capstone	3	4	*OST 134 OR OST 136, & OST 164	SP	A
	HMT 212	Mgmt of Healthcare Org	3	3		SP	A, C2
	OST 243	Medical Office Simulation	3	3	OST 148	SP	A, D
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A, D
			16	17	***State prerequisites are bolded.**		

Electives:	ACC 120	BUS 260
	OST 286	WEB 285
	OST 136	

Pathway Code Legend:
Medical Office Administration - Degree (A)
Medical Office Administration - Diploma (D)
Medical Office Administration - Certificate (C)
Certificates:
General (1)
Healthcare Administration (2)
Medical Billing & Coding (3)
Patient Services Representative (4)

Advisor Information:
Tiffany Cooper, CPC
Medial Office Administration Lead Instructor
Office: Business Sciences, Room 110

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Student ID#

Medical Office Administration - Medical Billing and Coding (A25310M)

Total Required Hours 68-71

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D
	MED 121	Medical Terminology I	3	3		FA, SP, SU	A, D, C13
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OST 164	Office Editing	3	3		FA	A, D
	OST 148	Med Ins & Billing	3	3		FA	A, D, C1
			16	18			

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	HUM	Humanities Elective	3	3	Varies		A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	OST 134	Text Entry & Formatting	3	3	Ost 130 or skills	FA, SP	A, D
	MED 122	Medical Terminology II	3	3	MED 121	FA, SP, SU	A, D, C13
	OST 149	Medical Legal Issues	3	3		SP	A, D
	CIS 110	Introduction to Computers	3	3		FA, SP, SU	A, D, C1
			18	18			

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	OST 248	Diagnosis Coding	3	4	MED 121	FA	A, C3
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	BIO 163	Basic Anatomy & Physiology	4	6	Satisfactory placement scores or DRE 097	FA	A
	OR						
	MAT 110	Math Measurement & Literacy	3	3	Satisfactory placement scores or DMA 010, 020, 030	FA	A
	Elective	Elective	3	3	Varies		A
	CTS 130	Spreadsheet	3	3		FA, SP, SU	A
			16 / 15	19 / 16			

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	OST 247	Procedure Coding	3	4	MED 121	SP	A, C3
	OST 289	Office Admin Capstone	3	4	*OST 134 OR OST 136, & OST 164	SP	A
	OST 243	Medical Office Simulation	3	3	OST 148	SP	A, D
	OST 184	Records Management	3	3		SP	A
	OST 249	Med Coding Certification Prep	3	5	OST 247 & OST 248	SP	A, C3
	OST 264	Medical Auditing	3	3	OST 247 & OST 248	SP	A, C3
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A, D
			19	23	***State prerequisites are bolded.**		

Electives:	ACC 120	BUS 260
	OST 286	WEB 285
	OST 136	

Pathway Code Legend:
Medical Office Administration - Degree (A)
Medical Office Administration - Diploma (D)
Medical Office Administration - Certificate (C)
Certificates:
General (1)
Healthcare Administration (2)
Medical Billing & Coding (3)
Patient Services Representative (4)

Advisor Information:
Tiffany Cooper, CPC
Medial Office Administration Lead Instructor
Office: Business Sciences, Room 110
tcooper@isothermal.edu 828-395-1638

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Student ID#

Medical Office Administration - Patient Services Representative (A25310S)

Total Required Hours 68-71

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D
	MED 121	Medical Terminology I	3	3		FA, SP, SU	A, D, C1
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	OST 164	Office Editing	3	3		FA	A, D
	OST 148	Med Ins & Billing	3	3		FA	A, D, C12
			16	18			

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	HUM	Humanities Elective	3	3	Varies		A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	OST 134	Text Entry & Formatting	3	3	Ost 130 or skills	FA, SP	A, D
	MED 122	Medical Terminology II	3	3	MED 121	FA, SP, SU	A, D, C1
	OST 149	Medical Legal Issues	3	3		SP	A, D
	CIS 110	Introduction to Computers	3	3		FA, SP, SU	A, D, C12
			18	18			

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	OST 286*	Professional Development	3	3		FA	A, C4
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	BIO 163	Basic Anatomy & Physiology	4	6	Satisfactory placement scores or DRE 097	FA	A
	OR						
	MAT 110	Math Measurement & Literacy	3	3	Satisfactory placement scores or DMA 010, 020, 030	FA	A
	BUS 125	Personal Finance	3	3		FA, SP, SU	A, C
	Elective	Elective	3	3	Varies		A
	CTS 130	Spreadsheet	3	3		FA, SP, SU	A
			19 / 18	21 / 18			

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites*	Semester Offered	Pathway
	BUS 260*	Business Communications	3	3	ENG 111	SP	A, C
	OST 184	Records Management	3	3		SP	A
	OST 289	Office Admin Capstone	3	4	*OST 134 OR OST 136, & OST 164	SP	A
	MKT 223	Customer Service	3	3		SP	A, C4
	OST 243	Medical Office Simulation	3	3	OST 148	SP	A, D
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A, D
			16	17			

***State prerequisites are bolded.**

Electives:	ACC 120	BUS 260*
	OST 286*	WEB 285
	OST 136	

Pathway Code Legend:
Medical Office Administration - Degree (A)
Medical Office Administration - Diploma (D)
Medical Office Administration - Certificate (C)
Certificates:
General (1)
Healthcare Administration (2)
Medical Billing & Coding (3)
Patient Services Representative (4)

Advisor Information:
Health and Public Services
Dr. Alice L. McCluney, 828-395-1444
amccluney@isothermal.edu
Applied Sciences Building, Room 2

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 030		DMA 070	
DRE 098		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Occupational Education (A55320)

Total Required Hours 66/67

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1	2		FA, SP, SU	A,D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A,D
	EDU 175	Intro to Trade & Industrial Edu	3	3	None/DRE 097	FA, SP, SU	A,D,C
	EDU 289	Advanced Issues/School Age	2	2	None/DRE 097	FA, SP	A
	EDU 177	Instructional Methods	3	4	None/DRE 097	FA, SP, SU	A,D,C
	EDU 179	Vocational Student Organizations	3	3	None/DRE 097	FA, SP, SU	A,D,C
	ISC 121	Environmental Health & Safety	3	3		FA, SP, SU	A,D,C
			15				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 161	Intro to Children with Exceptional	3	3	None/DRE 097	SP	A
	EDU 271	Educational Technology	3	4	None/DRE 098	FA, SP, SU	A,D,C
	EDU 281	Instructional Strat/Read & Write	3	3	None/DRE 098	Sp	A,D,C
	CIS 110	Intro to Computers	3	4		FA, SP, SU	A,D
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A,D
			15				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	*EDU 163	Classroom Management	3	3	None/DRE 097	FA	A,D
	EDU 244	Human Growth/Development	3	3	None/DRE 097	FA/SP	A
	EDU 131	Child Family & Community	3	3	None/DRE 097	FA	D
	EDU 176	Occupational Analysis & Course Dev	3	3	None/DRE 097	FA	A,D
	PSY 150	General Psychology	3	3	None/DRE 097	FA, SP, SU	A,D
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	EDU 245	Policies/Procedures	3	3	None/DRE 97	FA,SP	A
	EDU 243	Learning Theory	3	3	None/DRE 97	FA, SP	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
			15				

Rebecca Haney
Office Administration Instructor
Business Sciences, Room 103
rhaney@isothermal.edu 828-395-1305

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Office Administration - Customer Service (A25370C)

Total Required Hours 66/67

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A, D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	BUS 110	Introduction to Business	3	3		FA	A
	BUS 115	Business Law	3	3		FA	A, D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C,
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D, C, CS
	OST 164	Office Editing	3	3		FA	A, D, C,
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ENG 111	Writing and Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	MKT 223	Customer Service	3	3		SP	A, CS
	OST 134	Text Entry & Formatting	3	4		FA, SP	A, D, C, CS
	OST 184	Records Management	3	4		SP	A, D
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	BUS 253	Leadership and Management	3	3		FA	A, CS
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	OST 136	Word Processing	3	3		FA, SP	A, D, C,
	OST 286	Professional Development	3	3		FA	A, D, CS
	WEB 285	Emerging Web Technologies	3	4		FA	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	BUS 260	Business Communication	3	3	ENG 111	SP	A
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	HUM	Humanities Elective	3	3		FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OST 289	Office Admin Capstone	3	4	OST 134 or OST 136, and OST 164	SP	A, D
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			16/17				

A 25370 Office Administration Customer Service Degree
D 25370 Office Administration General Diploma
C 25370 Office Administration General Certificate
C 25370CS Office Administration Customer Service Certificate

Rebecca Haney
Office Administration Instructor
Business Sciences, Room 103
rhaney@isothermal.edu 828-395-1305

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Office Administration - Finance (A25370F)

Total Required Hours 64/65

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A, D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D, CF
	BUS 115	Business Law	3	3		FA	A, D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C,
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D, C, CS
	OST 164	Office Editing	3	3		FA	A, D, C,
			17				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ACC 121	Principles of Managerial Accounting	4	5	ACC 120	SP	A
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ENG 111	Writing and Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	BUS 125	Personal Finance	3	3		FA, SP	A
	OST 134	Text Entry & Formatting	3	4		FA, SP	A, D, C, CF
	OST 184	Records Management	3	4		SP	A, D, CF
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ACC 140	Payroll Accounting	2	3		FA	A
	ECO 252	Principles of Macroeconomics	3	3		Fall, Spring	A, D
	OST 136	Word Processing	3	3		Fall, Spring	A, D, C
	OST 286	Professional Development	3	3		FA	A, D
	COM 231	Public Speaking	3	3		Fall, Spring, Summer	A
			14				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ACC 150	Accounting Software Applications	2	3	ACC 120	SP	A, CF
	ACC 180	Bookkeeping	3	3	ACC 120	SP	A
	HUM	Humanities Elective	3	3	Varies	FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OST 289	Office Admin Capstone	3	4	OST 134 or OST 136, and OST 164	SP	A, D
	WBL 110	World of Work	1	1	Last Semester	Fall, Spring	A
			15/16				

A 25370F Office Administration Office Finance Degree
D 25370 Office Administration General Diploma
C 25370 Office Administration General Certificate
C 25370CF Office Administration Office Finance Certificate

Rebecca Haney
Office Administration Instructor
Business Sciences, Room 103
rhaney@isothermal.edu 828-395-1305

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Office Administration - Legal Office (A25370L)

Total Required Hours 66/67

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathways
	ACA 115	Success & Study Skills	1	2		FA, SP, SU	A, D
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP, SU	A, D
	OST 155	Legal Terminology	3	3		FA	A, CL
	BUS 115	Business Law	3	3		FA	A, D
	CIS 110	Introduction to Computers	3	4		FA, SP, SU	A, D, C,
	OST 130	Comprehensive Keyboarding	3	4		FA, SP	A, D, C, CS
	OST 164	Office Editing	3	3		FA	A, D, C,
			16				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	ACC 120	Principles of Financial Acct	4	5		FA, SP, SU	A, D
	CTS 130	Spreadsheet	3	4		FA, SP, SU	A, D
	ENG 111	Writing and Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A, D
	MKT 223	Customer Service	3	3		SP	A
	OST 134	Text Entry & Formatting	3	4		FA, SP	A, D, C, CL
	OST 184	Records Management	3	4		SP	A, D
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	COM 231	Public Speaking	3	3		FA, SP, SU	A
	BUS 153	Human Resource Management	3	3		FA	A
	OST 136	Word Processing	3	3		FA, SP	A, D, C, CL
	OST 286	Professional Development	3	3		FA	A, D
	OST 156	Legal Office Procedures	3	4	**OST 134**	FA	A
			15				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	
	BUS 260	Business Communication	3	3	ENG 111	SP	A
	ECO 252	Principles of Macroeconomics	3	3		FA, SP	A, D
	HUM	Humanities Elective	3	3		FA, SP, SU	A
	MAT 110	Math Measurement & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A, D
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OR						
	MAT 152	Statistical Methods	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A, D
	OST 289	Office Admin Capstone	3	4	OST 134 or OST 136, and OST 164	SP	A, D
	WBL 110	World of Work	1	1	Last Semester	FA, SP	A
			16/17				

A 25370L Office Administration Degree Concentration Legal
D 25370 Office Administration General Diploma
C 25370 Office Administration General Certificate

Advisor Information:
Kim Amos, *Interim Director Practical Nurse Education*
Health & Public Services
kamos@isothermal.edu 828-395-1446

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

Practical Nursing Diploma (D45660)

Total Required Hours 45

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 122	College Transfer Success	1	1	none	FA, SP, SU	D
	BIO 168	Anatomy & Physiology I	4	6	Satisfactory placement scores or DRE 097	FA, SP, SU	D
	NUR 101	Practical Nursing I	11	19	Admission to PNE	FA	D
	PSY 150	General Psychology	3	3	Satisfactory placement scores or DRE 097	FA, SP, SU	D
			19				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BIO 169	Anatomy & Physiology II	4	6	BIO 168	FA, SP, SU	D
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	D
	NUR 102	Practical Nursing II	7	9	NUR 102AB	SP	D
			14				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	NUR 103	Practical Nursing III	9	15	NUR 102BB	SP	D
			9				

Advisor Information:
Kim Amos, *Interim Director Practical Nurse Education*
Health & Public Services
kamos@isothermal.edu 828-395-1446

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

LPN Refresher Course (C45390)

Total Required Hours 12

Registered	Course Number	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	NUR 107	LPN Refresher Course	12	288	Previously licensed as an LPN	FA, SP, SU	C

***Advisor Information*:**
School Age Education Degree, Health & Public Services
Dr. Alice L. McCluney
amccluney@isothermal.edu, 828-395-1444

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) Student ID#

School Age Education Degree (A55440)

Total Required Hours 67/69

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 118	Princ & Pract of Inst Assistants	3	3	None/DRE 097	FA	A
	EDU 119	Intro to Early Childhood Education	4	4	None	FA, SP	A
	EDU 131	Child, Family, & Community	3	3	None/DRE 097	FA	A
	EDU 144	Child Development I	3	3	None/DRE 097	FA	A
	EDU 151	Creative Activities	3	3	None/DRE 097	FA	A
	ACA 115	Success and Study Skills	1	2		FA,SP,SU	A
	OR						
	ACA 122	College Transfer Success	1	2		FA,SP,SU	A
			17				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 145	Child Development II	3	3	None/DRE 097	SP	A
	EDU 146	Child Guidance	3	3	None/DRE 097	SP	A
	EDU 184	Early Childhood Intro Practicum	2	4	EDU 119/DRE 097	FA, SP	A
	EDU 259	Curriculum Planning	3	3	EDU 119/DRE 098	SP	A
	EDU 281	Instructional Strat/Read & Write	3	3	None/DRE 098	SP	A
	EDU 289	Advance Issues/School Age	2	2	None/DRE 098	SP	A
			16				

Registered	1st Summer	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	CIS 110	Intro to Computers	3	3	None	FA, SP, SU	A
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP, SU	A
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP, SU	A
	OR						
	MAT 143	Quantitative Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050 & DRE 098	FA, SP, SU	A
			9				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 163	Classroom Management	3	3	None/DRE 097	SP	A
	EDU 214	Early Childhood Interm Practicum	4	10	EDU 119, EDU 144, EDU 146/DRE 098	FA, SU	A
	ENG 112	Writing/Research	3	3	ENG 111/None	FA, SP, SU	A
	EDU 271	Educational Technology	3	4	None/DRE 098	FA, SP, SU	A
			13				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites/ Corequisites	Semester Offered	Pathway
	EDU 221	Children with Exceptionalities	3	3	EDU 144 & EDU 145/DRE 098	SP	A
	EDU 284	Early Childhood Capstone Pract.	4	10	EDU 119, EDU 144, EDU 145, EDU 146, EDU 151, EDU 184, EDU 214/ DRE 098	FA, SP	A
	EDU 285	Internship Exp-School Age	4	10	EDU 144, EDU 145, EDU 118, & EDU 163/DRE 098	FA	A
	HUM ELEC	Elective	3	3	Varies	FA, SP, SU	A
	SOC SCI	Elective	3	3	Varies	FA, SP, SU	A
			17				

The Surgical Technology program is a competitive admission program. Students are considered pre-health students and must complete additional admission requirements before they can be accepted into the actual surgical technology courses.
See www.isothermal.edu/healthsciences for more information or contact Tina Porter at 395-1621.

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name (Name Called) ID#

Surgical Technolgy Diploma (D45740)

Total Required Hours 48-49

Registered	1st Fall	Course Name	Credit Hours	Lab Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	ACA 115	Success and Study Skills	1		2		FA,SP,SU	D
	BIO 163	Basic Anatomy & Physiology	5		6	Satisfactory placement scores or DRE 097	FA	D
	ENG 111	Writing & Inquiry	3		3	Satisfactory placement scores or DRE 098	FA,SP,SU	D
	SUR 110	Intro to Surg. Tech.	3		3	Acceptance into Surgical Technology Program	FA	D
	SUR 111	Periop. Patient Care	7		11		FA	D
			19					

Registered	Spring Term	Course Name	Credit Hours	Lab Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BIO 175	General Microbiology	3		4	BIO 110, 111,163,165, or 168	FA,SU	D
	OR							
	BIO 275	Microbiology	4		6	BIO 110, 111,163,165, or 168	SP	D
	CIS 110	Intro to Computers	3		4		FA,SP,SU	D
	Sur 122	Surgical Procedures I	6		8	SUR 110 &111	SP	D
	Sur 123	Sur. Clinical Pratice I		21	7	SUR 110 &111	SP	D
			16					

Registered	Summer Term	Course Name	Credit Hours	Lab Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	Sur 134	Surgical Procedures II	5		5	SUR 123	SU	D
	Sur 135	Sur. Clinical Practive II	4	12		SUR 123	SU	D
	Sur 137	Prof. Success Prep.	1		1	SUR 123	SU	D
			10					

***Advisors Information*:**
Welding Technology, *Applied Sciences & Engineering Technology*
Nathan Fisher
nfisher@isothermal.edu 828-395-1515

Academic Development (If Applicable)					
DRE 096		DMA 010		DMA 050	
DRE 097		DMA 020		DMA 060	
DRE 098		DMA 030		DMA 070	
		DMA 040		DMA 080	

Last Name First Name Name Called Student ID#

Welding Technology (A5420)

Total Required Hours 70/71

Registered	1st Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	BPR 111	Blueprint Reading	2	3		FA, SP	A, D, C
	WLD 110	Cutting Processes	2	4		FA, SP	A, D, C
	WLD 115	SMAW (Stick) Plate	5	11		FA, SP	A, D, C
	WLD 116	SMAW (Stick) Plate/Pipe	4	10	WLD 115	FA, SP	A, D, C
	WOL 110	Basic Construction Skill	3	5		FA, SP	A, D, C
	ACA 115	Success and Study Skills	1	2		FA, SP	A
	OR						
	ACA 122	College Transfer Success	1	2		FA, SP	A
			18				

Registered	1st Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WLD 141	Symbols & Specs.	3	4		FA, SP	A, D, C
	WLD 143	Welding Metallurgy	2	3		FA, SP	A, D, C
	WLD 121	GMAW (Mig) Plate	4	8		FA, SP	A, D, C
	WLD 131	GTAW (Tig) Plate	4	8		FA, SP	A, D, C
	WLD 122	GMAW (Mig) Plate/Pipe	3	7	WLD 121	FA, SP	A, D, C
	ENG 111	Writing & Inquiry	3	3	Satisfactory placement scores or DRE 098	FA, SP	A, D
			19				

Registered	2nd Fall	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WLD 215	SMAW (Stick) Pipe	4	10	WLD 115 & 116	FA, SP	A, D, C
	WLD 132	GTAW (Tig) Plate/Pipe	3	7	WLD 131	FA, SP	A, D, C
	WLD 261	Certification Practices	2	4	WLD 115,121 & 131	FA, SP	A, D, C
	ENG 112	Writing/Research in the Discipline	3	3	ENG 111	FA, SP, SU	A
	OR						
	COM 231	Public Speaking	3	3		FA, SP	A
	HUM	Humanties Elective	3	3	Varies	FA, SP	A
	CIS 110	Intro to Computers	3	4		FA, SP	A
			18				

Registered	2nd Spring	Course Name	Credit Hours	Contact Hours	Prerequisites	Semester Offered	Pathway
	WLD 231	GTAW (Tig) Pipe	3	7	WLD 131	FA, SP	A, C
	WLD 151	Fabrication 1	4	8	WLD 110 & 115	FA, SP	A
	WLD 262	Inspection & Testing	3	4		FA, SP	A, C
	SOC SCI	Social Science Elective	3	3	Varies	FA, SP	A
	MAT 110	Math Measurements & Literacy	3	4	Satisfactory placement scores or DMA 010, 020, 030	FA, SP	A, D
	OR						
	MAT 121	Algebra/Trigonometry I	3	4	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060	FA, SP	A, D
	OR						
	MAT 171	Precalculus Algebra	4	5	Satisfactory placement scores or DMA 010, 020, 030, 040, 050, 060, 070, 080 or MAT 121	FA, SP	A, D
			16				

ADMINISTRATORS AND FACULTY

Kathy Ackerman ..... Dean of Arts and Sciences
B.A., Bowling Green State University; M.A., UNC-Charlotte; Ph.D., University of South Carolina

Kim Alexander…… ..... Dean of Business Sciences
A. A., Grand Rapids Community College; B.A., Grand Valley State University; M.M. Aquinas College-Michigan

Danielle Aley……. ..... Director of Bookstore Operations
A. A., Isothermal Community College

Kim Amos ..... Interim Director Practical Nursing
A.A.S., Isothermal Community College; A.A.S., Cleveland Community College; BSN., M.S., Western Carolina University; Certified Nurse Educator (CNE), National League for Nursing; PhD Education, Capella University

Dana Anderson..... Computer Programming/Web Technologies
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B.S., California State College

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B.S., Gardner-Webb University

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Rebecca E. S. Cleland ..... Evening Librarian
B.A., M.S.L.S., University of Tennessee

Ruth Colnot ..... Student Activities Coordinator
B.A., Georgetown College; M.A., University of Georgia

Jay Coomes ..... Broadcasting and Production Technology
B.A., Central State University

Tiffany Cooper ..... Medical Office Administration
A.A.S., Western Piedmont Community College; B.S., Gardner-Webb University; M.A., Appalachian State University; Certified Professional Coder

Marin Crosbie ..... FITW Grant Success Coach
B.A., Duke University; M.S., Valdosta State University

Lisa Courtney ..... Success Coach Advisor
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Betsy Cuthbertson ..... Nurse Aide and Allied Health Program Coordinator
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B.A., King College; M.A., East Tennessee State University

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Pamela Ellis ..... Director of Financial Aid
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ASE Master Technician; DuPont Refinish OEM Certified; Bronze Level PPG Certification

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B.S., Eastern Michigan University

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B.S., Appalachian State University

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B.S., M.S., University of North Carolina – Charlotte

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Johnathan Jones ..... Music
B.A., Tarleton State University; M.A., Pennsylvania State University

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A.D.N. Gaston College, B.S.N. - University of North Carolina - Charlotte, M.S.N. Case Western Reserve University, C.N.M., Frontier School of Midwifery/Family Nursing; DNP, Case Western Reserve University

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A.A., Art Institute of Atlanta

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R.N., B.S.N., M.S.N., Western Carolina University

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B.S. and M.S., University of Tennessee at Knoxville

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A.A.S., Isothermal Community College

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B.S., University of Central Florida; M.S., Western Carolina University

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B.S., M.B.A., M.DIV., Gardner-Webb University

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B.A., Davidson College

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B.S., UNC-Charlotte

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B.S., Minnesota State University-Mankato; M.S., Minnesota State University-Mankato

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Marian Price ..... Foothills Nursing Consortium
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Leslie Rhom ..... Foothills Nursing Consortium
A.A., Gardner Webb University; B.S., UN-Charlotte; MSN, University of South Alabama

Paula Rogalski ..... Testing Coordinator
B.S., Westfield State College; M.A., Liberty University

Lee Roach ..... Mechanical Engineering Technology/Manufacturing Technology/Industrial Systems Technology
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Johnny Smith ..... Dean of Health and Public Service
B.A., Carson-Newman; M.A. and Ed.S., Ed.D., Appalachian State University

Loreen Smith ..... English
B.A., Stony Brook University; B.A. and M.Ed., Georgia State University

Angela Snyder ..... Supplemental Instruction Coordinator
B.S., Appalachian State University

Kimberly Snyder ..... Director of Advising and Success Center
B.S., Gardner Webb University; M.A., Appalachian State University; N.C.C; L.P.C.

James Spratt ..... Math
B.S., Western Carolina University, M.S., Western Carolina University

Karen Spratt ..... Academic Development Mathematics
A.A., Isothermal Community College; B.S., Western Carolina University; M.A., Appalachian State University

Susan Straw ..... Manager of the Campus Print Shop
A.A.S., Chowan University; A.A.S., A.A., Isothermal Community College; B.S., Appalachian State University

Marisa Sudano ..... Business Administration/Accounting
A.A., Hibbing Community College; B.A.S., University of Minnesota; M.B.A., St. Cloud State University

Chuck Summey ..... Intramural and Athletics Coordinator
B.S., Lenior-Rhyne

Thomas Tarker ..... Criminal Justice Technology
A.A.S., Stanly Community College; B.S., Western Carolina University; M.S., Fayetteville State University

Joy Thomson ..... Welding Technology
NCCER Craft Instructor

Connie Toney……..... .....Cosmetology
A.A.S., Isothermal Community College; B.A., Limestone College

Pat Wall ..... Office Administration
B.S., University of South Carolina; M.A., Western Carolina University

Robby Walters ..... Chief Information Officer
B.S., University of NC-Charlotte

Jeff Waters ..... Computer-Integrated Machining
Haas CNC Turning Center Certification, Haas Vertical Machining Center Certification, Gibbs Cam Certification,
NCCER Craft Instructor

Bret Watson ..... Physical Education
B.S., Appalachian State University; M.A., Gardner Webb University

Traci Martin Whitton ..... Mechanical Drafting Technology
A.A.S., Isothermal Community College; B.S., Western Carolina University

Charles P. Wiggins ..... Director of Library Services
B.F.A., University of North Carolina-Asheville; M.F.A., East Carolina University; M.L.I.S., University of North Carolina-Greensboro

Russell Wicker ..... Director of Performing Arts and Conference Center
B.A., Appalachian State University

Carolyn Young ..... Broadcasting and Production Technology
B.A., Muskingum College

FACILITIES

ADMINISTRATION BUILDING
Academic Development office, faculty, and classrooms, Arts and Sciences office, faculty, labs and classrooms, Assessment, Planning and Research Office, Business Office, Human Resources, Math Lab, Presidential Office Suite, Public Information Office, Webmaster, Writing Center

APPLIED SCIENCES AND ENGINEERING TECHNOLOGY BUILDING
Applied Sciences office, faculty, classrooms, BLET, Computer Engineering Technology, Criminal Justice, Early Childhood, Electronics Technology

BUSINESS SCIENCES/AUTOBODY BUILDING
Business Sciences office, faculty, and classrooms, Blue Room 112, Red Room 137, Chocolate Room 136, Banking and Finance, Marketing and Retailing, Computer Programming, Computer Information Technology, Entrepreneurship, Information Systems Security, Medical Office Administration, Networking Technology, Office Administration, Web Technologies, Accounting Lab, Computer Lab, Isothermal Career Development Center

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

THE FOUNDATION: A CENTER FOR LEARNING AND THE ARTS
Basic Skills/Adult High School/GED, Customized Training and Development, Continuing Education, Defensive Driving, Truck Driving, Small Business Center, Visitor Information, Box Office, Performing Arts & Conference Center, Seminar Rooms, Stage

INFORMATION TECHNOLOGY BUILDING
IT Department, Coordinator of Technology Enhanced Learning, Isothermal Digital Education Academy (IDEA)

LIBRARY
Library staff offices and workspace, book, audiovisual, and periodical collections, student/public computer access, Old Tryon Room, Arts & Sciences Computer Lab, Library Auditorium

LIFELONG LEARNING CENTER
Arts & Sciences faculty and classrooms, REaCH office, faculty, and classrooms, Supplemental Instruction, faculty and classrooms

MACHINING TECHNOLOGY BUILDING
Manufacturing Technology, Mechanical Engineering Technology

MAINTENANCE BUILDING
College Vehicle Reserve, Shipping & Receiving

POLK CENTER
The Polk County Center office, non-credit classes, Adult Basic Education, GED, CNA, English as a Second Language (ESL), curriculum classes

THE RUTHERFORDTON LEARNING CENTER
Associate Degree Nursing (ADN), Compensatory Education, EMT, ESL, Licensed Practical Nursing (LPN), Lifelong Learning classes, Nurse Aide, Truck Driver Training

STUDENT CENTER
Admissions Office, Advising and Success Center, Placement and High School Equivalency Testing, Campus Bookstore, Campus Enforcement, Arts & Sciences faculty and classrooms; Cosmetology, Employee Fitness Center, Financial Aid Office, Gym & Pool, Physical Education, Student Activities, Student Services, Visitor Information, Records Office, Dean of Students, Student Government Association, Career Readiness Certification (CRC) lab, Workforce Innovation and Opportunity Act (WIOA), Verterans Affairs, Help Desk, Pearson Vue Test Center, REaCH classroom and lunchroom, Disability Services, Career and Academic Counseling, Career Services, Pre-Health Sciences Advising, Success Coaching

WELDING TECHNOLOGY BUILDING
Classrooms, Computer lab, Metrology/Inspection Room, Offices, Indoor Shop, Outdoor Shop Tool Storage

WHITE HOUSE
Construction Trades

Appendix A-General Education Competencies

GENERAL COMPETENCIES EXPECTED OF ISOTHERMAL GRADUATES

Because we believe an education is more than an accumulation of credits earned through completion of a variety of courses, and because we want graduates of our programs to be successful at whatever their next step may be—either getting a job or transferring to another college—, it is essential that they exhibit the general education skills described on the following pages. All of these skills are basic to getting along in the world of work. They are skills employers tell us they want most in people they hire. They are skills necessary to success in daily life. Our expected general education outcomes are as follows:

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

Criteria for achieving these outcomes were developed by campus-wide assessment teams and have been adopted for use in all curriculum programs throughout the college. On the following pages, we provide these criteria in the form of assessment rubrics. Your instructors will be using these to assess your work.

WHAT STUDENTS CAN EXPECT OF ISOTHERMAL

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

- Meet student needs by demonstrating professional, friendly, and courteous service in all aspects of student life
- Maintain high professional and academic standards
- Serve as role models in the development of leadership skills
- Respect diversity and treat all students fairly
- Be available to students and 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.

WRITTEN COMMUNICATION RUBRIC

	4 – EXEMPLARY	3 - PROFICIENT	2 - EMERGING	1 - NOVICE
Context and Purpose	**Demonstrates** a thorough understanding of context, audience and purpose and follows instructions of assigned task, including an effective introduction and conclusion.	**Demonstrates** adequate consideration of context, audience, and purpose and follows instructions of assigned task, including an introduction and conclusion.	**Demonstrates** awareness of context, audience and purpose and attempts to follow instructions of assigned task, including a minimal introduction and conclusion.	**Demonstrates** minimal attention to context, audience, purpose, and instructions of assigned task.
Focus	**Formulates** a clear, strong, and defendable thesis and **focuses** all parts of the work on that thesis by staying on point and not introducing new ideas.	**Formulates** a clear and defendable thesis and **focuses** nearly all parts of the work on that thesis, mostly staying on point and not introducing new ideas.	**Formulates** an adequate thesis and **attempts** to focus the work on the thesis, staying on point somewhat but perhaps introducing an unrelated idea or two.	**Formulates** a weak and/or indefensible thesis and **demonstrates** little understanding of focus.
Development	Effectively **develops** the thesis with many specific, relevant, and compelling details, facts, examples, illustrations, quotations, etc. that indicate mastery of the subject.	**Develops** the thesis with specific, convincing, and relevant details, facts, examples, illustrations, quotations, etc.	**Uses** relevant content to explore the subject through most of the work but points are overly general and/or rarely supported by specifics.	**Uses** simple or inadequate content to explore the subject through some of the work.
Organization	**Organizes** major and supporting ideas logically, consistently, and with clear transitions which smoothly link ideas.	**Organizes** major and supporting ideas logically with some transitions to smoothly link ideas.	**Arranges** ideas in a somewhat logical organization to prevent confusion.	**Arranges** ideas in a confusing order.
Mechanics	**Uses** graceful language that skillfully communicates meaning with clarity, concision, and fluency, in correct and varied sentence structure and is virtually free of errors.	**Uses** straightforward language that generally conveys meaning with few errors and shows understanding of correct and varied sentence structure.	**Uses** language that generally conveys meaning with clarity, although writing may contain some errors, including sentence structure. **Shows** an attempt to proofread for errors.	**Uses** language that sometimes impedes meaning because of errors, usage and/or sentence structure and **shows** lack of proofreading.
Supporting materials/ information literacy (if applicable)	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic; adjusts topic accordingly. **Integrates** and **balances** paraphrasing, summarization, and quotation to support thesis and points, while respecting source material's original context. **Uses** proper references & citations for all sources.	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic. **Integrates** paraphrasing, summarization, and quotation to support thesis and points. **Uses** proper references & citations for all sources.	**Selects** sources that are relevant to the topic, but some may lack authority, accuracy, reliability, or timeliness. **Relies** too heavily on paraphrasing or summarization or quotation of information supporting thesis and points. **Uses** references & citations for sources with a minimum of errors or problems. **May** commit incremental plagiarism	**Selects** sources that are irrelevant or only marginally relevant to the topic and lack authority, accuracy, reliability, and timeliness. **Omits** information supporting thesis and points, or sources were quoted only, or sources were improperly quoted. **Neglects** references or citations, or references or citations have significant errors. **May commit** egregious forms of plagiarism, whether deliberate or not.

Sept. 2013

PRESENTATION SKILLS RUBRIC

	4 - EXEMPLARY	3 - PROFICIENT	2 - EMERGING	1 - NOVICE
Purpose	**Conveys** a clear purpose and a compelling central idea	**Conveys** a clear purpose and central idea	**Conveys** a purpose and central idea but could be clearer	**Needs to establish** a sense of purpose and a central idea
Content	**Presents** material that fits and **supports** the purpose and central idea in a creative, engaging, and insightful way Thoroughly **develops** distinct main points Optional: **Creates** superior visual aids that clearly relate to and enhance the presentation	**Presents** material that sufficiently fits and supports the purpose and central idea Adequately **develop**s distinct main points Optional: **Creates** good visual aids that need minor improvement but relate to and enhance the presentation	**Presents** relevant material that fits the purpose and central idea but needs more supporting information **Presents** discernible main points, but they need to be clearer and more fully developed Optional: **Creates** visual aids that need substantial improvement but relate to and enhance the presentation	**Needs** solid, relevant material to support the presentation **Needs** discernible main points Optional: **Needs** relevant visual aids to enhance the presentation
Organization	**Uses** a logical, well-constructed pattern that fits the purpose of the presentation **Unifies** ideas with smooth transitions and clear signals **Creates** a presentation that flows seamlessly	**Uses** a recognizable pattern that fits the purpose of the presentation **Unifies** ideas with some transitions and signals **Creates** a presentation that flows well overall	**Uses** a pattern that generally fits the purpose of the presentation **Needs** clearer transitions and signals **Creates** a presentation that generally flows but sometimes seems disjointed	**Needs** an identifiable, logical pattern **Needs** transitions and/or signals to move the speech along **Creates** a presentation that seems disjointed
Language (includes word choice, grammar, and punctuation)	**Uses** language that is vivid and completely clear, accurate, and appropriate for the situation or occasion	**Uses** language that is completely clear, generally accurate, and generally appropriate for the situation or occasion	**Uses** language that is generally clear and appropriate for the situation or occasion but has glaring inaccuracies that detract from the presentation	**Needs** language that is much clearer, more accurate, and more appropriate for the situation or occasion
Delivery	**Maintains** exceptional eye contact, volume, vocal variety, and nonverbal communication (gestures, facial expressions, stance, and dress) **Speaks** at a rate that is completely easy to follow and understand **Conveys** meaning with well-placed, non-vocalized pauses (“um,” “uh”) **Incorporates** visual aids (if used) smoothly and effectively	**Maintains** good eye contact, volume, vocal variety, and nonverbal communication (gestures, facial expressions, stance, and dress) **Speaks** at a rate that is generally easy to follow and understand **Seldom fills** pauses with “um,” “uh,” etc. **Incorporates** visual aids (if used) effectively overall but could use more polish	**Maintains** some eye contact, volume, vocal variety, and nonverbal communication (gestures, facial expressions, stance, and dress) **Sometimes speaks** too quickly and/or indistinctly **Often fills** pauses with “um,” “uh,” etc. **Incorporates** visual aids (if used) with some difficulty	**Reads** notes or manuscript to the audience; needs substantial work on volume, variety, and nonverbal communication **Consistently speaks** too quickly and/or indistinctly **Consistently fills** pauses with “um,” “uh,” etc. **Incorporates** visual aids (if used) with much difficulty
Supporting materials/ information literacy (if applicable)	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic; adjusts topic accordingly **Integrates** and **balances** paraphrasing, summarization, and quotation to support thesis and points, while **respecting** source material’s original context **Uses** proper references & citations for all sources	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic **Integrates** paraphrasing, summarization, and quotation to support thesis and points **Uses** proper references & citations for all sources	**Selects** sources that are relevant to the topic, but some may lack authority, accuracy, reliability, or timeliness **Relies too heavily** on paraphrasing or summarization or quotation of information supporting thesis and points **Uses** references & citations for sources with a minimum of errors or problems **May plagiarize** incrementally	**Selects** sources that are irrelevant or only marginally relevant to the topic & lack authority, accuracy, reliability, & timeliness **Omits** information supporting thesis and points, or sources were quoted only, or sources were improperly quoted **Neglects** references or citations, or references or citations have significant errors **May plagiarize** egregiously, whether deliberate or not

INFORMATION LITERACY RUBRIC

	4 - EXEMPLARY	3 – PROFICIENT	2 - EMERGING	1 – NOVICE
Defines the Need for Information	**Defines** the topic, the scope of the topic, key concepts, and the information needed **Develops** a manageable focus appropriate to criteria of assignment **Identifies** a variety or exhaustive list of likely source types	**Defines** the topic, and the information needed **Develops** a focus appropriate to criteria of assignment **Identifies** several likely source types	**Defines** the topic, and the information needed incompletely **Develops** a focus that is too broad or too narrow **Identifies** general source types	**Has** difficulty defining the topic, and the information needed **Lacks** a focus or the focus is too broad or too narrow **Has** difficulty identifying source types
Locates and Accesses Information	**Selects** a variety of topic-appropriate databases and resources **Uses** effective search strategies, developing a vocabulary of topic-specific terms, employing advanced search features (Boolean, indexes, limiters, etc.) as appropriate **Checks** source bibliographies for additional literature **Seeks** sources beyond those immediately available, e.g., interviews, interlibrary loan, etc.	**Selects** topic-appropriate databases and resources **Uses** effective search strategies with topic-specific terms, employing advanced search features (Boolean, indexes, limiters, etc.) as appropriate **Checks** source bibliographies for additional literature	**Uses** library databases and resources, but not necessarily topic appropriate. Excessive reliance on the open web **Searches** using topic-specific terms, but relies on keyword searching and little to no use of advanced search features	**Uses** few or no library resources. Excessive reliance on the open web **Searches** using limited terminology, and relies on keyword searching with little to no use of limiters
Evaluates Information	**Selects** scholarly and/or trade sources relevant to the topic based on authority, accuracy, reliability, coverage, and timeliness**;** and adjusts topic accordingly**.** **Selects** only those popular sources that are authoritative **Identifies** and **critiques** assumptions or biases	**Selects** scholarly and/or trade sources relevant to the topic based on authority, accuracy, reliability, coverage, and timeliness **Uses** few, credible popular sources **Identifies** assumptions or biases	**Selects** sources relevant to the topic, but some may lack authority, accuracy, reliability, coverage, or timeliness **Relies** on popular sources over scholarly or trade publications **Ignores** or **misses** assumptions or biases	**Selects** sources that are irrelevant or only marginally relevant to the topic **Relies** on popular sources over scholarly or trade publications **Ignores** or **misses** assumptions or biases
Uses Information Correctly & Ethically	**Integrates** and **balances** paraphrasing, summarization, and quotation to support thesis and points, while **respecting** source material's original context **Distinguishes** between common knowledge and sources requiring attribution **Uses** proper references & citations for all information sources	**Integrates** paraphrasing, summarization, and quotation to support thesis and points **Distinguishes** between common knowledge and sources requiring attribution **Uses** proper references & citations for all information sources	**Relies** heavily on paraphrasing or summarization or quotation of information supporting thesis and points **Confuses** common knowledge with sources requiring attribution **Uses** references & citations for information sources with a minimum of errors or problems	**Omits** information supporting thesis and points, or sources were quoted only, or sources were improperly quoted **Neglects** references or citations, or references or citations have significant errors

March 2013

CRITICAL THINKING RUBRIC

	4-EXEMPLARY	3-PROFICIENT	2-EMERGING	1-NOVICE
Understands Problem	**Clearly defines** the issue or problem **Accurately identifies** the core issues/key concepts **Appreciates** depth and breadth of problem **Identifies** relevant, significant points of view **Demonstrates** fair-mindedness toward the problem and all relevant points of view	**Defines** the issue **Identifies** the core issues/key concepts, but may not fully explore the depth and breadth **Identifies** relevant points of view Demonstrates fair-mindedness	**Defines** the issue, but superficially or narrowly **May overlook** some core issues/key concepts **May focus** on irrelevant or insignificant points of view **May identify** other points of view but **struggles** with maintaining fair-mindedness	**Fails** to clearly define the issue or problem **Does not recognize** the core issues/key concepts **Ignores** alternate points of view **Fails to maintain** a fair-minded approach toward the issue or problem or other points of view
Acquires Information	**Identifies** sufficient, credible, relevant information **Considers** information that opposes as well as supports the argued position **Distinguishes** between information and inferences drawn from it	**Identifies** sufficient, credible, relevant information **Considers** some information from opposing points of view **Distinguishes** between information and inferences drawn from it	**Identifies** some credible information, but not enough; some information may be irrelevant **Ignores** strong counter-arguments Sometimes **confuses** information and the inferences drawn from it	**Relies** on insufficient, irrelevant, or unreliable information **Fails to identify** or dismisses relevant counter-arguments Confuses information and the inferences drawn from it
Utilizes Information	**Accurately explains/uses** the relevant key concepts **Accurately identifies** assumptions **Makes assumptions** that are consistent, reasonable, and valid	**Explains** and **uses** the key concepts, but may lack depth and precision **Identifies** assumptions **Makes** valid assumptions	**Identifies** some key concepts, but use of concepts is superficial and inaccurate at times **Fails** to identify or explain assumptions, or the assumptions are irrelevant, unclear, and/or invalid	**Misunderstands** key concepts **Fails to identify** assumptions **Makes** invalid assumptions
Makes Valid Conclusions	**Follows** where evidence and reasoning lead to obtain defensible, thoughtful, logical conclusions or solutions **Makes** deep rather than superficial inferences **Makes** inferences that are consistent with one another **Identifies** the most significant implications and consequences of the reasoning (positive or negative) **Distinguishes** probable from improbable implications/solutions	**Follows** where evidence and reasoning lead to obtain justifiable, logical conclusions or solutions **Makes** valid inferences, but may lack depth **Identifies** significant implications and consequences, but may lack insight and precision **Distinguishes** probable from improbable implications/solutions, but may lack insight and precision	**Follows** some evidence to conclusions or solutions **Makes** inferences that are often unclear, illogical, inconsistent, and/or superficial **Has trouble** identifying significant implications and consequences **Identifies** improbable implications	**Uses** superficial, simplistic, or irrelevant reasoning and unjustifiable claims **Makes** illogical, inconsistent inferences **Maintains or defends** views based on self-interest, regardless of the evidence **Ignores** significant implications, consequences, or solutions
Supporting Materials/ Information Literacy (if applicable)	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic; adjusts topic accordingly **Integrates** and **balances** paraphrasing, summarization, and quotation to support thesis and points, while respecting source material's original context **Uses** proper references & citations for all sources	**Selects** authoritative, accurate, reliable, and timely scholarly and/or trade sources that are relevant to the topic **Integrates** paraphrasing, summarization, and quotation to support thesis and points **Uses** proper references & citations for all sources	**Selects** sources that are relevant to the topic, but some may lack authority, accuracy, reliability, or timeliness **Relies** too heavily on paraphrasing or summarization or quotation of information supporting thesis and points **Uses** references & citations for sources with a minimum of errors or problems **May plagiarize** incrementally	**Selects s**ources that are irrelevant or only marginally relevant to the topic and lack authority, accuracy, reliability, and timeliness **Omits** information supporting thesis and points, or sources were quoted only, or sources were improperly quoted **Neglects** references or citations, or references or citations have significant errors **May plagiarize** egregiously, whether deliberate or not

Adapted from Foundation for Critical Thinking. (n.d.) Critical Thinking Grid. Retrieved from http://www.criticalthinking.org/pages/critical-thinking-testing-and-assessment/594. Used by permission.

March 2013

QUANTITATIVE SKILLS RUBRIC

	4 - EXEMPLARY	3 - PROFICIENT	2 - EMERGING	1 - NOVICE
Demonstrates basic arithmetic skills	**Performs** basic arithmetic operations with 100% accuracy	**Performs** most arithmetic operations correctly with minor mistakes	**Performs** some arithmetic operations correctly but **cannot complete** the problem	**Cannot perform** basic arithmetic skills
Uses correct processes and models to solve problems	**Understands** the problem, **analyzes** information, **translates** into a solvable format, **correctly solves** the problem and **accurately translates** the results	**Understands** the problem, **translates** information into a solvable format, and **solves** the problem. May have minor arithmetic or translation errors	**Understands** the basics of the problem, but **cannot translate** information into a format that leads to a solution	**Unable to begin** the problem
Uses quantitative language in oral and written communication	**Appropriately uses** advanced quantitative language in all oral and written work	**Appropriately uses** basic and some advanced quantitative language in oral and written communication	**Appropriately uses** quantitative language at a basic level in oral and written communication	**Cannot use** appropriate quantitative language
Applies quantitative concepts to real-world situations	**Understands** the problem, **identifies** relevant data, and **selects** an appropriate model **Can obtain** and **accurately describe** results and **draw** inferences	**Understands** the problem, **identifies** relevant data, **selects** an appropriate model, but **cannot consistently obtain** and **describe** results	**Understands** basic concepts and **can identify** relevant data, but **cannot select** an appropriate model	**Unable to begin** the problem
Creates and/or interprets graphs, tables, and diagrams	**Can accurately read, interpret**, and **create** graphs, tables or diagrams and **can use** them to **solve** problems or **predict** change	**Can accurately read, interpret**, and **create** graphs, tables, or diagrams	**Can accurately read** and **interpret** graphs, tables, or diagrams	**Cannot provide** any information about the graph

TECHNOLOGY SKILLS CHECKLIST

	Met	Not Met	N/A	Comments
Word Processing				
Adheres to assignment instructions by using correct formatting (font, margins, orientation, page numbers, spacing, tabs, etc.)				
Utilizes spelling and grammar functions in the word processing software				
Utilizes special functions to comply with assignment instructions (merge, labels, tables, design, layout)				
Accurately submitted assignment electronically and in required document format				
Multimedia (integration of text, graphics, sound, animation, and/or video)				
Utilizes multimedia according to assignment instruction				
Checks for technical issues before presentation if using multimedia equipment (computer, projector, wireless mouse)				
Operates the multimedia properly (navigates well through the use of the multimedia)				
Fulfills technical requirements of the assignment (color/theme, graphs, sound, video, animation)				
Fulfills formatting requirement of the assignment (font, margins, orientation, page numbers, spacing, tabs)				
Utilizes spelling and grammar checks before submission/ presentation				
Learning Management System Usage (Moodle, Aplia)				
Accessed course components per instruction				
Successfully performed a required task (uploaded an assignment)				
Successfully completes quizzes and other required assignments as instructed				
Successfully utilized other learning system functions (wikis, blogs, forum, chats, etc)				
Participates in social media activities as instructed (Facebook, Twitter, LinkedIn, Ning, etc.)				
Electronic Mail				
Accurately utilizes college email account to communicate with instructor and fellow students				
Includes a proper subject in the subject line				
Includes a salutation and a closing				
Utilizes standard English and proper punctuation, grammar, and spelling				
Uses a professional tone				
Includes attachments correctly				
Technology and Research				
Uses technology to access valid resources when conducting research (NC LIVE, online periodicals, websites with .edu and .gov addresses, etc.)				
Other Educational Technology Tools				
Demonstrates efficiency with the use of other required classroom technology tools (calculators, web cameras, tablets, and other mobile devices)				

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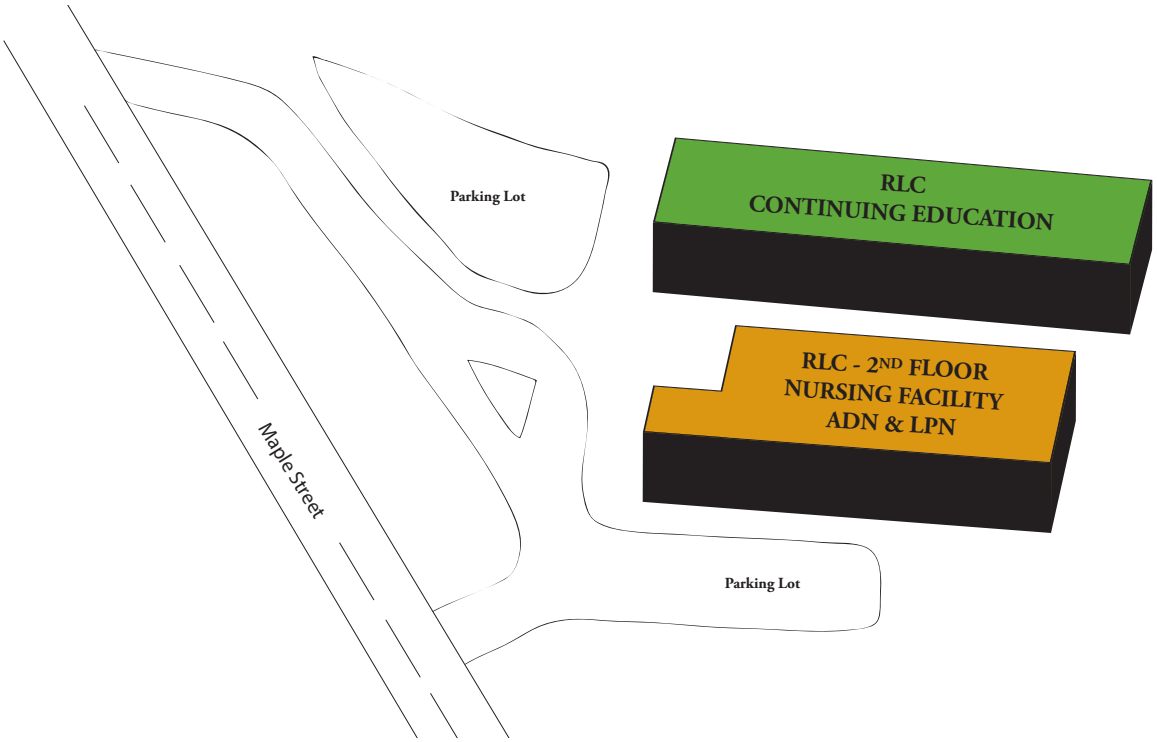
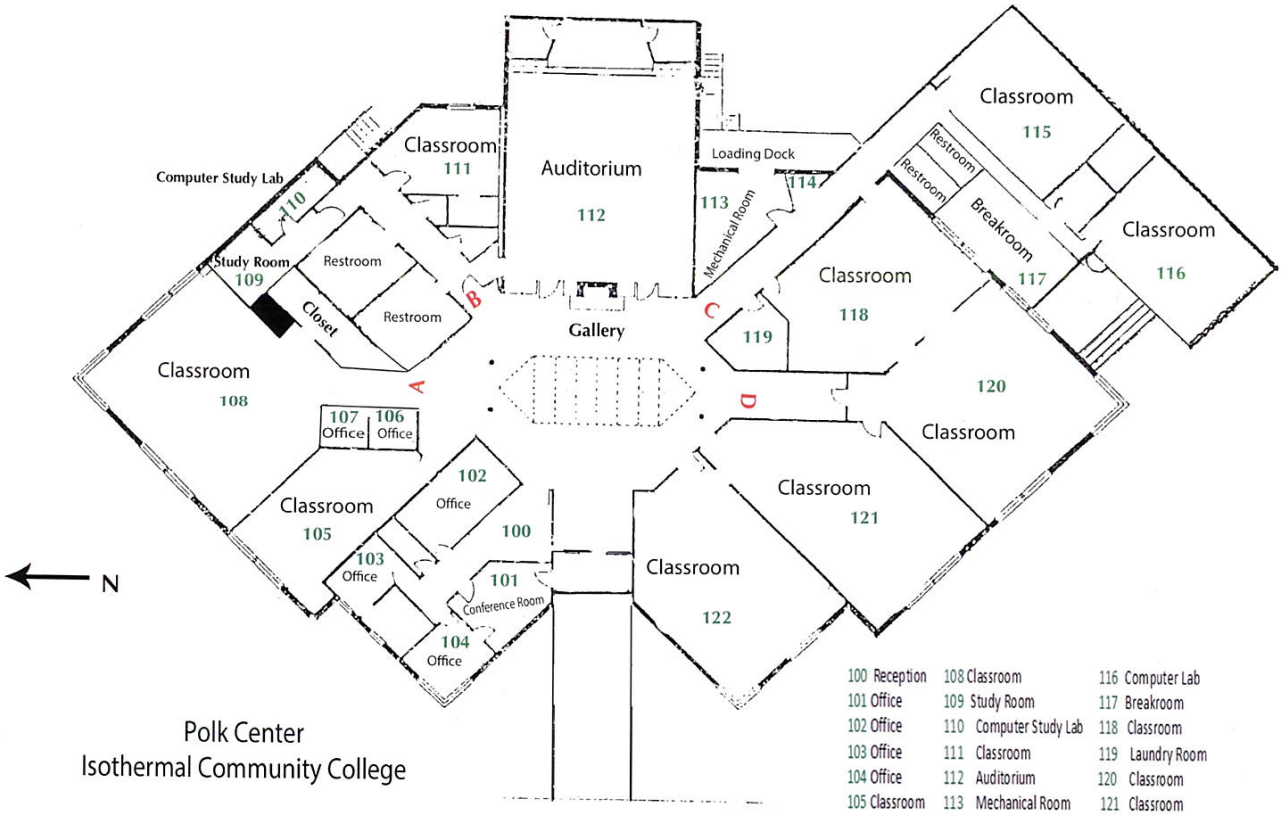
Rutherfordton Learning Center

134 Maple Street, Rutherfordton, NC 28139



Polk Center

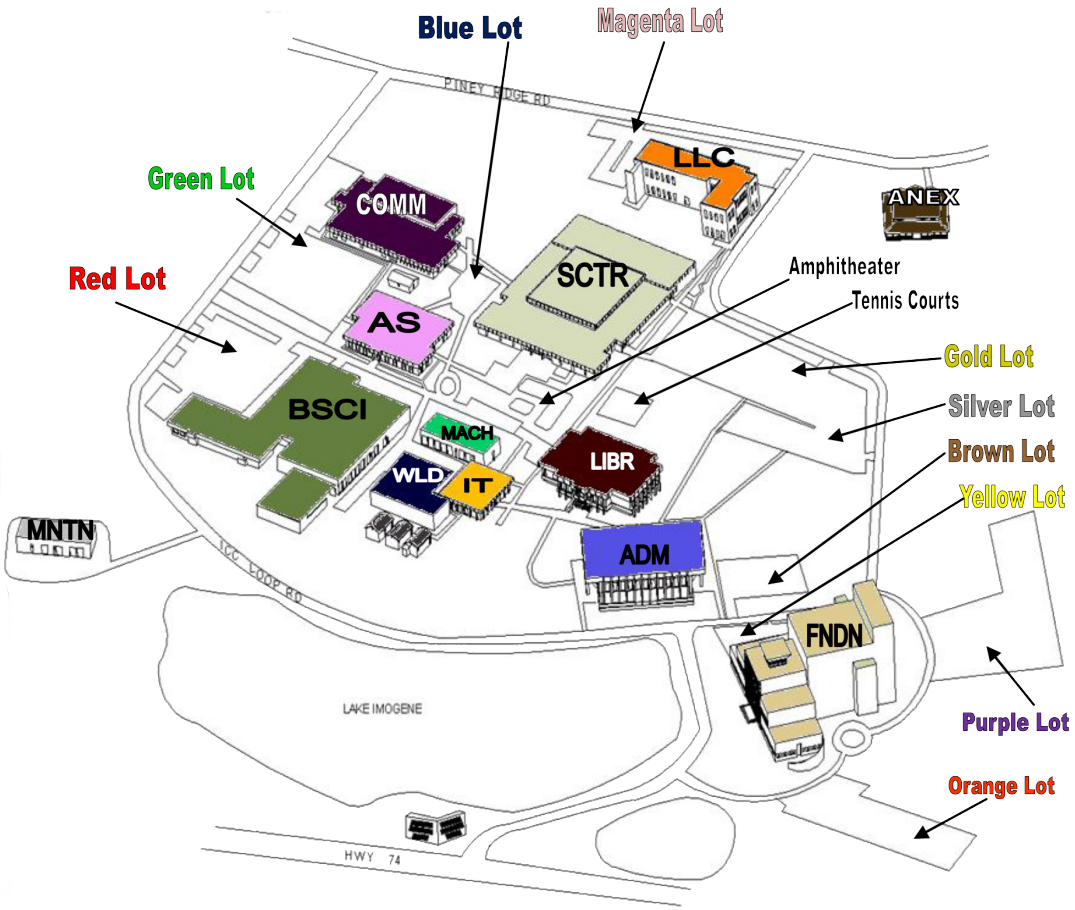
1255 West Mills St., Columbus, NC 28722



ISOTHERMAL COMMUNITY COLLEGE

RUTHERFORD CAMPUS MAP

286 ICC LOOP RD., SPINDALE, NC 28160
(828) 286-3636



Communications - COMM
Advertising & Graphic Design
Broadcasting & Production Tech.
Campus Print Shop
Customized Training & Dev. Room
Electrical Systems Technology
WLOS
WNCW

Applied Sciences & Engineering Technology - AS
Computer Engineering Technology
Electronics Engineering Technology
Mechanical Drafting Technology

Health & Public Services - AS
BLET
Criminal Justice
Early Childhood/Schoolage

Business Sciences - BSCI
Agribusiness Technology
Autobody
Blue Room 112
Business Administration
Building Construction Technology
Chocolate Room 136
Computer Information Technology
Computer Programming
Entrepreneurship
Healthcare Management Technology
Information Systems Security
Medical Office Administration
Networking Technology
Office Administration
Red Room 137
Web Technologies

Information Technology - IT
IT Department

Maintenance - MNTN
College Vehicle Reserve
Shipping & Receiving

Library - LIBR
Arts & Sciences Computer Lab
Library Auditorium
Old Tryon Room

Welding Technology - WLD
Computer Lab
Welding Classrooms and Offices
Welding Shop

Lifelong Learning Center - LLC
Arts & Sciences Faculty
REaCH
Supplemental Instruction Coordinator

Machining Technology - MACH
Manufacturing Technology
Mechanical Engineering Technology
Metrology Lab

Student Center - SCTR
Admissions Office
Advising and Success Center
Arts & Science Faculty
Campus Bookstore
Campus Enforcement
Career Counseling & Personal Assist.
Career Readiness Certification
Cosmetology
Dean of Students
Disability Services
Employee Fitness Center
Financial Aid Office
Gym
Help Desk
Intramural Sports
Physical Education
Placement/HS Equivalency Testing
Pool
Pre-Health Sciences Advising
Student Activities
Student Center Lobby
Student Records
Student Services
Veterans Affairs
Visitor Information

Administration - ADM
Academic Development
Arts & Sciences
Assessment, Planning & Development
Business Office
Human Resources
Math Lab
Marketing & Community Relations
Presidential Office Suite
Writing Center

The Foundation - FNDN
Ground Floor
Adult High School/GED
Allied Health - CNA, Med Aid
College & Career Readiness
Continuing Education
Customized Training & Development
Defensive Driving
Emergency Services
Small Business Center
Visitor Information
Second & Third Floor
Performing Arts & Conference Center
Box Office
Seminar A & B
Stage