



## 2009-2010 Catalog



A Unit of the

Technical College System of Georgia

To view the most current version of the academic  
catalog please visit our website at  
[www.ChattahoocheeTech.edu](http://www.ChattahoocheeTech.edu)

## CHATTAHOOCHEE TECHNICAL COLLEGE

### General Catalog: 2009-2010

Appalachian Campus  
100 Campus Drive  
Jasper, Georgia 30143  
(706) 253-4500

Marietta Campus  
980 South Cobb Drive  
Marietta, Georgia 30060  
(770) 528-4545

Mountain View Campus  
2680 Gordy Parkway  
Marietta, Georgia 30066  
(770) 509-6305

North Metro Campus  
5198 Ross Road  
Acworth, Georgia 30102  
(770) 975-4000

Paulding Campus  
400 Nathan Dean Blvd.  
Dallas, Georgia 30132  
(770) 443-3600

South Cobb Campus  
1578 Veterans Memorial Hwy.  
Austell, Georgia 30168  
(770) 732-5900

Woodstock Campus  
8371 Main Street  
Woodstock, Georgia 30188  
(678) 454-1800

The Technical College System of Georgia and its constituent technical colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, disabled veteran, veteran of the Vietnam Era, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all educational programs and activities including admissions policies, scholarship and loan programs, athletic, and other Technical College System and Technical College-administered programs, including any Workforce Investment Act of 1998 (WIA) Title I financed programs. It also encompasses the employment of personnel and contracting for goods and services. The Technical College System of Georgia and its Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

This policy of nondiscrimination is consistent with Title IX of the Educational Amendments of 1972, Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Executive Order 11246, Equal Pay Act, Age Discrimination in Employment Act, Americans With Disabilities Act (ADA), Section 504 of the Rehabilitation Acts of 1973, Section 503 of the Rehabilitation Act of 1973, Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974, Immigration Reform and Control Act of 1986; and O.C.G.A. § 45-19-21 and other related state statutes.

## **Coordinators**

Chattahoochee Technical College has the following services and positions available:

- ADA Section 504
- Title VI
- Title IX

All services can be accessed at many campuses. Contact the Vice President of Student Affairs at the Marietta Campus, Building A, Room #1123, (770) 528-4545.

## **2009-2010 Catalog**

The statements set forth in this document are for informational purposes only and should not be construed as the basis of a contract between a student and this school.

While the provisions of this document will ordinarily be applied as stated, Chattahoochee Technical College reserves the right to change any provision listed in this catalog without actual notice to individual students. Every effort will be made to keep students advised of any such changes, and information will be available in the Office of Admissions. It is the student's responsibility to be informed. An online version of the catalog will also be updated twice a year on the Chattahoochee Tech web site at [www.ChattahoocheeTech.edu](http://www.ChattahoocheeTech.edu).

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## MESSAGE FROM THE PRESIDENT

The anticipated merger of Appalachian, Chattahoochee, and North Metro Technical Colleges will be official on July 1, 2009. The newly merged college will operate under the name "Chattahoochee Technical College" and will host a combined student population of 10,000 across six counties and seven campuses in North Georgia forming the largest technical college in Georgia.

Students enrolled in Chattahoochee Technical College are truly a part of history in the making. As the flagship technical college in Georgia, Chattahoochee Technical College will provide greater opportunities and resources to assist students in completing their educational and career goals.

So, what does being a student of the merged Chattahoochee Technical College mean?

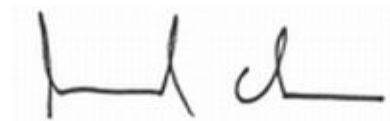
- Students are surrounded by a superior team of educational professionals dedicated to innovative learning and advanced technology,
- Students have access to enhanced campus life activities,
- Students have more diverse programs of study to choose and more flexible scheduling.

However, the qualities that have attracted students to technical education for decades are not changing. We will continue to provide:

- Small class sizes with low instructor to student ratios,
- Outstanding job placement,
- Substantial number of financial aid and foundation scholarships.

We are enthused about the merger of these excellent technical colleges and the expanded opportunities it will afford current and future students. Above all, we are committed to making this unique educational transition as transparent as possible to our students.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Chandler", is positioned above the printed name.

Sanford R. Chandler, Ed. D.

## GENERAL INFORMATION

### **Mission**

Chattahoochee Technical College, a unit of the Technical College System of Georgia, is a public, multi-campus, two-year college that provides accessible, high quality technical, academic, and adult education and training that promotes the economic growth and development of North Central Georgia. The college successfully prepares individuals for employment and assists them in pursuing their educational, career and personal goals through a variety of learning opportunities that include associate degree, diploma, and certificate programs, as well as non-credit and public service offerings.

### **Vision**

Chattahoochee Technical College will be committed to student-centered learning; acknowledged for its dedication to excellence and its quest for continued improvement; recognized for its proactive approach to quickly changing workforce development and technological trends; and responsive to the diverse needs of its students, businesses and communities of the region it serves.

### **Core Values**

Chattahoochee Technical College is a dynamic learning college committed to achieving its Mission and Vision upholding the following College Values:

- College unity
- Student-centered learning
- Service to the community
- Academic excellence
- Innovation, assessment and improvement
- Integrity
- Respect for the individual
- Effective communication

### **General Education Philosophy**

General education requirements at Chattahoochee Technical College are designed to provide graduates with a common academic experience which allows for the attainment of postsecondary academic knowledge and skills necessary to become successful in their career choice and lifelong learning. Verification of that attainment is accomplished through assessment of general education learning outcomes identified by the college's faculty. The achievement of these outcomes may occur over several courses in the graduate's program of study, including academic core as well as technical program courses.

The faculty's principal objective in establishing general education requirements is to encourage students to familiarize themselves with the conceptual frameworks that characterize the arts and humanities, the social sciences, and the natural sciences and mathematics. The faculty is committed to promoting in students knowledge about certain basic principles, concepts, and methodologies both unique to and shared by the various academic disciplines. Graduates are expected to acquire skills and knowledge in oral and written communication and quantitative methods that are appropriate to their award level.

Through academic core courses, students are challenged to increase their ability to express ideas effectively in English; to extend their capacities for making informed judgments of value; to expand their knowledge and understanding of themselves, of their own and other cultures, and of the natural world; and to develop their awareness of the ways in which the various academic disciplines may complement one another.

#### General Education Competency Statements

- AAS graduates will perform mathematical calculations at the college level.
- AAS graduates will compose essays that apply the writing process and research skills in a variety of rhetorical settings including but not limited to exposition, analysis, and/or argumentation.
- AAS graduates will demonstrate the ability to apply data, concepts, and knowledge in one of the natural sciences.
- AAS graduates will be able to identify and describe major intrapersonal, interpersonal, economic and/or sociological issues and trends.
- Diploma graduates will apply basic arithmetic operations in solving occupational and/or technical problems.
- Diploma graduates will produce logically organized, grammatically correct written communication for business and academic settings.
- All AAS and diploma graduates will demonstrate computer competency.

### **Accreditations**

Chattahoochee Technical College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Chattahoochee Technical College.

Chattahoochee Technical College maintains programmatic accreditation for its occupational programs with the Commission of the Council on Occupational Education, 41 Perimeter Center East, NE, Suite 640, Atlanta, GA 30346. Requests for information on the policies, standards, or procedures of the Commission of the Council on Occupational Education may be sent to Dr. Gary Puckett, Executive Director, at the above address.

#### **Program Accreditations**

The Automotive Technology Program (Marietta and Appalachian campus) is certified by the National Institute for Automotive Service Excellence (ASE) upon the recommendation of the National Automotive Technicians Education Foundation (NATEF).

The Biomedical Engineering Technology degree program is accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.

The Business Studies - Chattahoochee Technical College is accredited by the Association of Collegiate Business Schools and Programs (ACBSP) to offer the following business degrees:

Accounting AAS, Business Administrative Technology AAS, Management and Supervisory Development AAS, and Marketing Management AAS.

The Culinary Arts Program is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC).

The Environmental Horticulture Program (North Metro campus) is accredited by The Professional Landcare Network (PLANET).

The Electronics and Computer Engineering Technology degree program is accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.

The Medical Assisting Diploma Program (Appalachian, Marietta, and North Metro campus) is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs  
1361 Park Street  
Clearwater, FL 33756  
727/210-2350

The Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org); website: [www.capteonline.org](http://www.capteonline.org).

The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT)  
20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300  
email: [mail@jrcert.org](mailto:mail@jrcert.org)

The Surgical Technology Diploma Program (Marietta campus) is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Commission on Accreditation of Allied Health Education Programs  
1361 Park Street  
Clearwater, FL 33756  
727/210-2350

## **Warranty Statement**

The Technical College System of Georgia guarantees that graduates of state technical colleges or participating local technical colleges have demonstrated competence in those competencies as defined by the Industry Technical Committee and included in the approved state curriculum standards. *“Should any student within two years of graduation not be able to perform one or more of the competencies contained in the industry validated standard or program guide, including failure to pass a state required licensing examination, the Department agrees to provide specific retraining at any state technical college offering the program to the former student at no cost to the employer or graduate for tuition or instructional fee.”* Georgia’s technical colleges take pride in being the first to offer this guarantee to our partners in business and industry. To inquire or to file claims under this warranty please contact the Vice President of Student Affairs, Marietta Campus, 770.528.4545.

## **History of the College**

The service areas of Appalachian, Chattahoochee, and North Metro Technical Colleges have overlapped for many years, and together the colleges officially serve six counties: Bartow, Cherokee, Cobb, Gilmer, Paulding and Pickens. In merging, there are new opportunities to provide excellent education and training services as part of the Technical College System of Georgia vision and mission of “building a well educated, globally competitive workforce for Georgia.” The main goal is to enhance and expand the level and quality of services and to grow with the region which is expected to rapidly expand over the next few years.

In March 2003, Chattahoochee Tech hosted a visiting committee for reaffirmation of accreditation by the Commission on Colleges. Continued accreditation was granted in December 2003. In February 2006, North Metro Tech hosted a visiting committee for initial accreditation by the Commission on College. Accreditation was granted in June 2006. In October 2007, Appalachian Tech hosted a visiting committee for candidacy by the Commission on Colleges and was granted candidacy in December 2007.

The three colleges have a history of collaboration. An example is North Metro and Chattahoochee Tech’s involvement in the Cobb Education Consortium (CEC) that also includes the public school system and the two universities located in Cobb County. The CEC is dedicated to improving the quality of education among its member institutions by working together for the benefit of their students. Other collaborations include:

- Membership in the various Chambers of Commerce
- Participation in the Technical College System of Georgia’s instructional faculty standardized programs of study.
- Participation in state-wide peer groups of the Technical College System of Georgia for all functional units of the college and in which all three colleges are members. These peer groups allow the colleges to address common concerns and issues and develop strategies for success.

## **Academics**

The curriculum of Chattahoochee Technical College is designed to meet the needs of students pursuing postsecondary education that will lead to employment or further educational opportunities.

Chattahoochee Technical College is authorized to award Associate of Applied Science (AAS) degrees, diplomas, and technical certificates of credit (TCC).



Associate of Applied Science (AAS) degrees are offered in more than 30 programs of study. These programs differ from diploma programs primarily in the required academic core curriculum. Degrees require completion of a college-level curriculum in humanities and fine arts, mathematics and natural sciences, and social and behavioral sciences.

Diploma programs are designed to equip graduates with the skills, knowledge, and aptitudes for entry-level employment in their chosen field. Technical certificates of credit (TCCs) train students in a skill block of specialized areas of competence. Many courses taken for a TCC apply toward a diploma if the student chooses to expand his or her skills and knowledge.

Many programs offer courses during days and evenings, and many courses are available online for student convenience.

### **Perkins Funds**

The Carl D. Perkins Vocational and Technical Education Act (Perkins) was originally authorized in 1984, and most recently reauthorized in 2006. The purpose of Perkins is to provide individuals with the academic and technical skills needed to succeed in a knowledge- and skills-based economy. Perkins supports career and technical education that prepares its students both for postsecondary education and the careers of their choice.

Federal resources help ensure that career and technical programs are academically rigorous and up-to-date with the needs of business and industry.

Perkins funds are used for the following types of activities:

- Developing a strong accountability system that ensures quality and results
- Strengthening the integration of academic, career and technical education
- Ensuring access to career and technical education for special populations, including students with disabilities
- Developing and improving curricula
- Purchasing equipment to ensure that the classrooms have the latest technology
- Providing career guidance and academic counseling services
- Providing professional development for teachers.

### **Administrative Organization**

#### **State Board of Technical and Adult Education**

Chattahoochee Technical College is under the policy and administrative control of the Georgia State Board of Technical and Adult Education (SBTAE). This Board was established with the responsibility for the governance of state-supported, postsecondary technical colleges. The Board executes its responsibilities by adopting policies to provide general guidelines for governing the system. Under the supervision of the Commissioner of the Technical College System of Georgia, presidents of the colleges are given the responsibility and the authority for the administration of the college in accordance with the adopted policies. For a current listing of State Board Members, please visit:

[www.tcsg.edu/board\\_members.php](http://www.tcsg.edu/board_members.php).

#### **Local Board of Directors**

Chattahoochee Technical College's Board of Directors is composed of twenty-seven members who were nominated for their positions by area industry and community leaders. Each member represents one of the six counties in the merged college's service area, and was selected and approved by the SBTAE. The

primary responsibility of the local board is to interpret SBTAE policies and to provide supplemental policies for the college.

**Mrs. Deane Bonner**

President, Cobb County Branch  
National Association for the Advancement  
of Colored People  
Member – Chattahoochee Technical College  
Cobb County Representative

**Ms. Pam Carnes**

President & CEO  
Cherokee County Chamber of Commerce  
Vice-Chair – Appalachian Technical College  
Cherokee County Representative

**Mr. Tim Chason**

President & CEO  
The Chason Group, Inc.  
Member – North Metro Technical College  
Bartow County Representative

**Mr. David Connell**

Region Manager  
Georgia Power Company  
Member – Chattahoochee Technical College  
Cobb County Representative

**Mr. Stevan Crew**

President  
Crew & Associates  
Member – Chattahoochee Technical College  
Paulding County Representative

**Mr. Ezekiel “Zeke” Dorsey**

Human Resources Director  
Pitney Bowes, Inc.  
Member – Chattahoochee Technical College  
Cobb County Representative

**Mr. Mike Fields**

Financial Consultant  
Raymond James Financial Services, Inc.  
Member – North Metro Technical College  
Bartow County Representative

**Mr. Larry Freeman**

President,  
Consolidated Disposal Systems, Inc.  
Chair – Chattahoochee Technical College  
Cobb County Representative

**Mr. Roger Futch**

Exec. Vice President & COO  
Ellijay Telephone Company (ETC)  
Member – Appalachian Technical College  
Gilmer County Representative

**Ms. Kimberly Gresh**

President  
S.A. White Oil Company  
Member – Chattahoochee Technical College  
Cobb County Representative

**Mr. Mark Haney**

Senior Vice President Construction Real Estate  
WellStar Health System  
Member – North Metro Technical College  
Cobb County Representative

**Mr. Steve Holcomb**

President & CEO  
United Community Bank  
Chair – Appalachian Technical College  
Cherokee County Representative

**Mr. Rick Jasperse**

County Agent  
Pickens County Extension Service  
Member – Appalachian Technical College  
Pickens County Representative

**Mr. Don Johnson**

State Farm Insurance Co., Owner/Agent  
Member – Chattahoochee Technical College  
Cobb County Representative

**Mr. Mike Knowles**

President & CEO  
NorthWest Bank and Trust  
Chair – North Metro Technical College  
Cobb County Representative

**Ms. Melinda Lemmon, CEcD**

Executive Director  
Cartersville-Bartow County Department of  
Economic Development  
Member – North Metro Technical College  
Bartow County Representative

**Ms. Tracy A.D. Lewis**

President  
FasTrak Delivery & Warehouse, Inc.  
Vice Chair – North Technical College  
Bartow County Representative

**Mr. Steve Purvis**

Pharmacist/Owner  
Huff Drug Store  
Member – Appalachian Technical College  
Gilmer County Representative

**Mr. Tyre L. Rakestraw, Jr.**

Career/Technical and Agricultural Education  
District Director  
Paulding County Board of Education  
Member – Chattahoochee Technical College  
Paulding County Representative

**Mr. Ronnie Ray**

President,  
Etowah Engineering and Surveying, Inc.  
Member – Chattahoochee Technical College  
Paulding County Representative

**Mr. Keith Sandlin**

CEO  
Cartersville Medical Center  
Member – North Metro Technical College  
Bartow County Representative

**Mrs. Alyce M. Sarno**

Director, Communications & Community  
Relations  
Lockheed Martin Aeronautics Company  
Vice Chair – Chattahoochee Technical College  
Cobb County Representative

**Ms. Frankie F. Shepherd**

Retired Educator  
Member – Appalachian Technical College  
Cherokee County Representative

**Ms. Mitzi Smith**

President  
Sundial Plumbing Services  
Member – Chattahoochee Technical College  
Cobb County Representative

**Ms. Debbie Underkoffler**

Regional Manager  
Global Employment Solutions  
Member – North Metro Technical College  
Cobb County Representative

**Mr. Mark Whitfield**

President  
Jasper Banking Company  
Member – Appalachian Technical College  
Pickens County Representative

## COMMUNITY RESOURCES

### **Community and Economic Development**

The mission of Chattahoochee Technical College's Community and Economic Development division is workforce and economic development to enable the citizens of Bartow, Cherokee, Cobb, Gilmer, Pickens and Paulding counties to develop necessary skills to further their career goals. Through business and industry support programs, the division aids in the creation and retention of jobs by supporting existing companies, entrepreneurs, and new companies coming to the area.

### **Credit Courses**

The Chattahoochee Technical College Community and Economic Development division offers two state-certified Technical Certificate of Credit (TCC) programs. The Certified Manufacturing Specialist and Certified Customer Service Specialist programs can provide existing employees or potential employees with the basic skills necessary to succeed in the manufacturing or customer service industries. The HOPE Grant covers tuition, fees, and books for eligible students enrolled in the technical certificates of credit.

### **Continuing Education**

Continuing Education offers non-credit programs for professional and personal development to all lifelong learners. These courses are designed to meet our community's demand for knowledgeable practitioners in growing fields. Computer classes are offered for students from the novice to the experienced PC user including Introduction to Microcomputers and Windows applications. The program offerings are constantly updated and expanded to keep students abreast of the latest technology.

Licensing renewal and prep courses are available for Georgia Soil and Water Conservation, GA Contractors, Conditioned Heating and Air Contractor, Electrical Contractor. Examples of occupational training include Certified Nursing Assistant, Certified EKG Specialist, Certified Pharmacy Technician, Certified Phlebotomy Technician, Dental Assistant, Medical Coding and Billing, Paralegal, Fiber Optics, Private Investigator, and Real Estate. For law enforcement professionals, POST credit hours are also available. Personal enrichment and career development programs and seminars are offered; some examples of these are Accounting, QuickBooks, Successful Money Management, Digital Photography, English as a Second Language, French, Spanish, and Beginning Guitar. Our ACT testing center offers nationally recognized exams in many career fields such as pest control, automotive service excellence, and social work.

There are more than 2,900 on-line courses offered including but not limited to Professional Learning Units (PLUs) for Educators, Command Spanish, Real Estate, Creating Web Pages, Accounting Fundamentals, Medical Terminology, A to Z Grant Writing and Medical Coding for those that face time and distance limitations. Courses are affordable, designed for adults, and are offered at convenient times and locations. *Please call continuing Education at 770-528-4550 to request a Continuing Education Catalog or to obtain more information.*

Chattahoochee Technical College provides first aid and CPR training through the American Heart Association Community Training Center at the Marietta campus as well as through the Medic First Aid Center at the Appalachian campus. Both centers act as resources for instructor affiliates as well as providing training in basic, advanced and pediatric life support.

## **Adult Education**

Chattahoochee Technical College's Adult Education program focuses on those who lack necessary skills in reading, writing, math, or English language proficiency as well as on those who have not attained a high school diploma or GED. The Adult Education program has learning centers in most counties in the college's service area. All classes are offered free of charge and include a variety of services such as personal academic assessment, individualized instructional plans, and study labs in reading, writing, math, and English. Several learning centers are open days and evenings. *A schedule of programs available in each county may be obtained by calling the Adult Education Office.*

The Adult Education program also offers employers, through contractual agreement with the college, programs that address specific employer needs, adult basic skills, GED preparation, and English Literacy for employees whose native language is not English. Classes are usually offered at the employer's site for employees only and are closed to the general public.

The ultimate goal of students in the Adult Education program is to attain the GED (General Education Development) Diploma. Chattahoochee Technical College is designated as an official test center for administering the GED test. Multiple testing sites are located in the college's service area. Those who make satisfactory scores on this test will receive a GED Diploma from the Technical College System of Georgia and will receive a \$500 voucher if they choose to continue their education by enrolling in a technical college. In order to attend GED classes or take the GED test, students should call the Adult Education Office to make an appointment to attend the required registration/orientation.

## **Business/Industry Support**

### **Corporate Training**

Chattahoochee Technical College's Community and Economic Development division supports existing business and industry, entrepreneurs, and new companies coming to the area in several ways. We offer contract training services to businesses and industries in our service area. Contract training can be provided on virtually any topic the client company needs to ensure that existing employees upgrade their skills to keep pace with a rapidly changing environment. This training is customized in content, teaching methodology, training schedule, and delivery location based on the needs of the company. Common training topics include safety, leadership, management and supervisory development, industrial maintenance and technology, customer service, and quality systems.

### **Consulting Services**

The offers contract consulting services in the areas of strategic planning, detailed job profiling and analysis, lean principles, and occupational and mine safety and health (OSHA and MSHA). These services enable smaller companies to meet their goals and regulatory mandates in a cost-effective manner.

### **Georgia Re-Training Tax Credit**

Firms which provide certain types of training to their employees are able to receive a tax credit when filing their state tax returns. Qualified programs include, ERP and SAP systems, changes in operating systems, computer training, quality initiatives such as ISO 9000, and technology training on new equipment. The credit allows up to \$500 per person per program per year. Unused credits may be carried forward for 10 years. The Vice President of Community and Economic Development at Chattahoochee Technical College is available to assist and is authorized by the state to review and approve applications. *Call 770-528-4500 for additional information.*

In conjunction with the Technical College System of Georgia, Community and Economic Development coordinates training services of the Georgia Quick Start program. This program helps provide a trained workforce free of charge for eligible new and expanding businesses and industries in the area. *For more information on customized contract training, customized contract consulting services, or Quick Start, contact Community and Economic Development at 770.778.4550 or visit [www.ChattahoocheeTech.edu](http://www.ChattahoocheeTech.edu).*

### **Conference and Educational Facilities**

Our Marietta, North Metro, and Appalachian campuses each provide over 3,500 square feet of space in their conference centers. Catering kitchens are available at the Marietta and Appalachian campuses, which makes them appealing for special occasions such as wedding and banquets. Smaller breakout rooms may be partitioned at the Appalachian and Marietta locations while our North Metro campus offers a theatre style auditorium seating up to 260 people.

The facility rental available on these campuses supplies local area associations, businesses, government agencies, private parties, and non-profit organizations with a professional atmosphere in which to conduct training, board meetings, conferences, corporate parties, sales meetings, seminars, trade shows, special and other community related events. These facilities include the use of state of the art audio and visual equipment. *For more information on our facility rentals, contact Community and Economic Development at 770.778.4550 or visit [www.ChattahoocheeTech.edu](http://www.ChattahoocheeTech.edu).*

## ACADEMIC CALENDAR

### **Summer Quarter 2009**

07/03	Holiday – closed
07/04	Holiday weekend – closed
07/06	First day of Summer Quarter Drop/Add 100% Refund
07/07	Drop/ Add 100% Refund
07/08	Drop/Add 100% Refund
07/09	Drop/Add No refund
07/10	Drop/Add No refund
07/13	Last day to add classes. Drop/Add No refund
08/10	Quarter midterm Fall Quarter registration begins Last day to drop with a grade of “W”
08/31	Last day to withdraw with a grade of “WP” or “WF”
09/05	Holiday weekend – closed
09/07	Holiday – closed
09/14	Last instructional day of class
09/15	Final exams
09/16	Final exams Last day of Summer Quarter

### **Fall Quarter 2009**

09/30	First day of Fall Quarter Drop/Add 100% Refund
10/01	Drop Add 100% Refund
10/02	Drop/Add 100% Refund

10/05	Drop/Add No refund
10/06	Last day to add classes. Drop/Add No refund
11/03	Last day to drop with a grade of "W"
11/04	Quarter midterm Winter Quarter registration begins
11/24	Last day to withdraw with a grade of "WP" or "WF"
11/25	No classes
11/26	Holiday – closed
11/27	Holiday – closed
11/28	Holiday weekend - closed
12/12	Last instructional day of class
12/14	Final exams
12/15	Final exams Last day of Fall Quarter

#### **Graduation II**

12/16	10:00am
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#### **Holiday**

12/25-12/31	Holiday - closed
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#### **Winter Quarter 2010**

01/01	Holiday - closed
01/04	First day of Winter Quarter Drop/Add 100% Refund
01/05	Drop Add 100% Refund
01/06	Drop/Add 100% Refund
01/07	Drop/Add No refund
01/08	Drop/Add No refund
01/11	Last day to add classes. Drop/Add No refund
01/18	Holiday - closed
02/08	Last day to drop with a grade of "W"
02/09	Quarter midterm



	Spring Quarter registration begins
03/01	Last day to withdraw with a grade of "WP" or "WF"
03/15	Last instructional day of class
03/16	Final exams
03/17	Final exams
	Last day of Winter Quarter

### **Spring Quarter 2010**

03/31	First day of Spring Quarter
	Drop/Add
	100% Refund
04/01	Drop Add
	100% Refund
04/02	Drop/Add
	100% Refund
04/05	Drop/Add
	No refund
04/06	Last day to add classes.
	Drop/Add
	No refund
04/07-04/11	Spring Break – No classes
05/10	Quarter midterm
	Summer Quarter registration begins
	Last day to drop with a grade of "W"
05/29	Holiday weekend – closed
05/31	Holiday - closed
06/01	Last day to withdraw with a grade of "WP" or "WF"
06/14	Last instructional day of class
06/15	Final exams
06/16	Final exams
	Last day of Spring Quarter

### **Graduation I**

06/17	10:00am
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**\*\*Calendars are subject to change. Visit <http://www.ChattahoocheeTech.edu/> for updates.**

## ADMISSIONS

### **General Policy**

Chattahoochee Technical College will serve qualified applicants who are able to benefit from a course or program of study. Specific programs of study have admissions requirements determined by the Technical College System of Georgia (TCSG) and by the college. These requirements are based on criteria developed to help students determine their potential for success in that program. Placement evaluations, satisfactory academic background and performance, and other appropriate measurements are used to determine readiness for program entrance. If a student desires a program of study for which he or she does not have the appropriate educational background, learning support courses are available to prepare the student for the program.

### **Admission Requirements**

#### **Age**

Applicants for admission must be at least 16 years of age. Minimum age requirements may differ for some programs.

#### **Education**

A high school diploma or GED will be required for admission to the College or to a program as specified by the program's standards. High school diplomas must have been awarded by a secondary school that is accredited by an agency included in the TCSG's list of recognized agencies of accreditation. Applicants who received a diploma from a country outside the United States must have transcript evaluated for equivalency by an approved evaluation service and have that evaluation sent directly to Chattahoochee Technical College.

Home schooled applicants that did not receive their diploma from an acceptably accredited home study program must provide the following additional documentation to the admission office:

- Letter from the local superintendent's office showing that the parents conformed to the requirements of Georgia's Department of Education for home schooled students. The letter must state that the parents notified the superintendent of their intent to home school and verify that the parents or legal guardian submitted the required attendance reports to the superintendent's office on a monthly basis as required by the Department of Education.
- Annual progress reports or final transcript for the equivalent of the home schooled student's junior and senior years. The final progress report or final transcript should include a graduation date. A final transcript may be required for some financial aid purposes.

Individuals who cannot meet the above requirements may be admitted to the college by obtaining a GED.

*The President of the college may grant a waiver to the admissions requirement as it relates only to possessing a GED or high school diploma for those secondary students who are otherwise eligible to enroll in a program of study that is agreed upon by the secondary school and the college.*

## **Assessment**

All new applicants must take the ASSET or COMPASS test for advisement and program placement. In lieu of ASSET or COMPASS scores, applicants may submit official SAT or ACT scores, provided these scores are no more than 60 months old. If an applicant's alternative scores do not meet the College's Minimum Program Scores for program entrance, the applicant must be assessed via ASSET or COMPASS. There is no "passing score" for ASSET or COMPASS test. Scores indicate areas of strength and areas requiring remediation. If scores are not high enough for placement directly into program of study, Learning Support coursework is required.

## **Other Admission Requirements**

In addition to the above criteria, some programs may have other requirements. Please consult the appropriate section of the catalog for individual program guidelines.

## **Admission Types and Procedures**

### **For Beginning Students**

Procedures for applicants to Chattahoochee Technical College with no previous college experience:

- Submit an application for admission and a \$15.00 (*non-refundable*) application fee.
- Submit an official copy of high school transcript, GED test scores, or required documentation from home study program. All international transcripts or diplomas must be evaluated by an approved evaluation service, and that evaluation must be sent directly to Chattahoochee Technical College.
- Submit SAT, ACT, ASSET, or COMPASS scores taken within the last 60 months. If these scores are not available, applicants will be required to take the COMPASS placement test.
- Applicants for some programs are required to submit additional documentation. See program information for additional information.

### **For Transfer Students**

Procedures for applicants to Chattahoochee Technical College who have been previously enrolled at another regionally, nationally, and internationally accredited postsecondary institution (college, technical college, or university):

- Submit an application for admission and a \$15.00 (*non-refundable*) application fee.
- Submit an official copy of high school transcript, GED test scores, or required documentation from home study program. (*Exceptions to this would be for prospective students who have attained an Associate degree or higher, or successful completion (C or better) a minimum of 30 semester or 45 quarter credit hours at the degree level from a regionally accredited college or university*). All international transcripts or diplomas must be evaluated by an approved evaluation service and that evaluation must be sent directly to Chattahoochee Technical College by the agency providing the transcript evaluation.
- Submit an official copy of transcripts from all postsecondary institutions (colleges, technical colleges, universities) documenting courses satisfactorily completed. **All transcripts must be received by the application deadline.**
- Upon evaluation of previous postsecondary transcripts, applicants may be required to submit copies of SAT, ACT, ASSET, or COMPASS scores taken within the past 60 months. If these scores

do not meet the minimum program entrance guidelines, the applicant will be required to take the college's assessment test.

A transfer student is admitted to Chattahoochee Technical College:

- In good academic standing if the student was in good academic standing at their former institution.
- On academic warning or academic probation if the student was on academic warning or academic probation at their former institution. A student admitted on academic probation must earn a grade point average of at least 2.0 during the first quarter enrolled to continue the next quarter.
- Transfer students who are on academic suspension from their former institution are considered for admission to Chattahoochee Technical College on the same basis as suspended students from Chattahoochee Technical College who apply for readmission. Such applicants, if admitted, are admitted on academic probation as indicated above. A student admitted on academic probation must earn a grade point average of at least 2.0 during the first quarter enrolled to continue the next quarter.

**All applications and official transcripts must be on file in the Office of Admissions by the application/document deadline date for the quarter in which the applicant plans to enroll. If the applicant's file is completed after the application deadline the applicant may be admitted under the special student admission status (see below).**

Chattahoochee Technical College will not accept faxes or photocopies as official documents. Documents must also be received in a sealed issuing institution envelope. If an envelope has been opened prior to receipt by the Office of Admissions, the documents are not considered official and will not be accepted.

### **For Transient Students**

A student in good academic standing at another accredited institution may be permitted to enroll as a transient student on a space-available basis in order to complete work to be transferred back to the parent institution. In addition, the transient student must meet all prerequisites and corequisites for all desired courses. Submissions of a transcript may be required for verification. A transient applicant *must* submit the following:

- Completed application and nonrefundable application fee by stated application deadline.
- Transient Letter from the parent institution verifying that the student is in good academic standing and eligible for enrollment at Chattahoochee Technical College.

*Note: A Transient Letter is good for one (1) quarter only.*

## **Admission Classifications**

### **Regular Admission**

Students who meet all requirements for admission into a selected program and are eligible to take courses in the program curriculum. Students not meeting placement test requirements for regular admission will be classified as a provisional or learning support admitted student.

## **Provisional Admission**

Students must take learning support classes and may take certain occupational courses as long as course requisites are satisfied. Students initially admitted on a provisional basis must have satisfactorily completed the necessary learning support coursework to achieve regular status.

## **Learning Support Admission**

Applicants who score below the provisional cut scores in English, math, or reading are admitted under learning support status. Students admitted as Learning Support may not take occupational courses until achieving provisional or regular status. Students with this status are not eligible for federal financial aid.

## **Special Student Admission**

Non degree/diploma seeking applicants may be given special student admission status within the following parameters:

- Student will be classified as non-award seeking at time of entry.
  - Student may receive up to 25 credit hours toward a specific degree/diploma program while in this status.
  - Prerequisite and/or co-requisite course requirements apply when selecting courses in this status.
  - Assessment is required for special student admission.
- or**
- Student will be classified as a transient student. (*See Admission of Transient Students below.*)

Transient students may apply for regular student admission; however, the number of hours taken as a transient student in no way waives the requirements of the regular admission process.

## **International Student Admission Requirements**

1. Submit a completed an Application for Admission and non-refundable \$15.00 application fee in U.S. currency by credit card, money order or check drawn on a U.S. bank payable to Chattahoochee Technical College by the appropriate admission deadline.
2. Submit official transcripts from your high school (or GED) and all colleges attended by the application deadline. All transcripts must be received in envelopes sealed by the sending institution. Applicants with a college degree are not required to submit a high school or GED transcript. All international transcripts must be evaluated by an approved evaluation service and sent directly to CTC. We recommend the following evaluation agencies:

Josef Silny & Associates, Inc.

7101 SW 102 Avenue  
Miami, FL 33173  
Telephone: (305) 273-1616  
Fax: (305) 273-1338  
E-mail: [info@jsilny.com](mailto:info@jsilny.com)

World Education Services (WES)

P.O. Box 745 Old Chestnut Station  
New York, NY 10113-0745  
Telephone: (800) 937-3895

Lisano International  
P.O. Box 407  
Auburn, AL 36831-0407  
Telephone: (334) 745-0425  
E-mail: LisanoINTL@AOL.com

High school transcripts or diplomas should be evaluated by the *document by document evaluation method*.

Students with college credit or a degree from a college or university outside the United States must submit a *course by course evaluation* of the transcript.

Documents not in English need to be translated.

3. Submit official scores from one of the following placement tests taken within the last 5 years: SAT, ACT, CPE, ASSET, or COMPASS.

**If you are applying for, or have, F or M student visa, supply the following additional documentation:**

If English is NOT your first language, and you are abroad, submit official score of the Test of English as a Foreign Language (TOEFL): A score of 500 or higher on the written test, 173 or higher on the computerized version, or a score of 61 on the internet version of TOEFL is required. The school institutional code for TOEFL is 5441.

Submit **original financial documentation** as required by the U.S. government.

The school estimates it will cost \$17,601 USD to study at CTC for one academic year. One academic year equals 3 academic quarters or 9 months. For one academic year:

- Tuition and Fees (estimated cost): \$ 6,744 USD
- Books (estimated cost): \$750 USD
- Living Expenses (estimated cost): \$10,107 USD

The student or sponsor must provide a bank letter verifying a minimum of \$17,601 USD is available to finance the first year of education. All bank correspondence should be written on official bank stationery and certified or notarized by an officer of the bank with the bank address and telephone number printed clearly. Financial documentation must be dated within the last three months, and funds must be stated in the U.S. currency equivalent. U.S. sponsors must complete the **Form I-134 Affidavit of Support** and have it properly notarized. Sponsors abroad are required to submit a letter of support.

**Transfer Students:** If you are currently attending a college or university in the United States and wish to transfer to CTC, notify your school's International Office of your desire to transfer. Ask them to fill out and sign the **CTC Transfer Clearance Form** and send it to CTC's International Center. The **Transfer**

**Clearance Form** is a notification procedure important to the process of transferring your SEVIS records to CTC and the maintenance of your student status. Follow all admission procedures previously listed.

**Change of Status:** Students who need change-of-status or adjustment of immigration status to comply with government regulations should contact the International Center for advisement. The office can assist the eligible student with the change-of-status process and/or issue documents that enable the student to apply for a student visa.

### **Obtaining a Student Visa**

When all academic and visa requirements are met, follow these steps to obtain a student visa:

- Obtain **Form I-20** and a letter of acceptance from the school.
- Pay SEVIS I-901 Fee. Fee must be paid prior to the visa appointment with the U.S. Embassy. For payment options and further information, visit <http://www.fmjfee.com/index.jhtml>. Student is required to bring a copy of the SEVIS fee payment receipt (showing proof of payment) to the visa interview.
- Find the U.S. Embassy closest to your home at [http://travel.state.gov/travel/abroad\\_embassies.html](http://travel.state.gov/travel/abroad_embassies.html). Check the consular site to see if there are any special instructions for the consulate you will be visiting.
- Make an appointment with the embassy for the visa interview.

### **Arrival Information**

At the port-of-entry to the U.S., the student will be interviewed again and the Arrival/Departure **Form I-94** will be issued. The earliest date of entry into the U.S. that is allowed is typically 30 days prior to the start date indicated on your **Form I-20**. The student will not be allowed entry into the U.S. beyond the start date. The student is required to notify the International Center of arrival and make an appointment to complete U.S. Citizenship and Immigration Service requirements. An international student orientation will be provided before the term begins.

**Important Information:** Chattahoochee Technical College will not accept faxed or photocopied documents as "official" documents.

**The International Center** is the resource center for international students to obtain information and student services that are specific to international students. Questions concerning international admissions, visa advisement and documents, orientation/ international student programs, and any other issue related to the international student can be addressed to:

### **International Center**

980 South Cobb Drive

Marietta, GA 30060 USA

Telephone: 770-528-4528 or 770-528-5804

Email: [igalinat@ChattahoocheeTech.edu](mailto:igalinat@ChattahoocheeTech.edu)

All admission documents should be sent to:

**Admissions Office**

980 South Cobb Drive  
Marietta, GA 30060 USA

Admission status of an applicant cannot be determined until:

- Admissions Office has received all official documentation, and
- International Center and Admissions Office have approved documents for admission.

**Housing Information for Students**

CTC does not maintain student housing. Please check the Chattahoochee Technical College web site for information on resources regarding available housing in the area.

**Summary of International Student Admission Steps:**

**Academic**

- Admission application
- \$15.00 application fee
- Evaluation of international transcripts or diplomas
- High School (document-by-document evaluation method)
- College (course-by-course evaluation method)
- SAT, ACT, CPE or ASSET scores
- COMPASS or placement test (if SAT, ACT, CPE, ASSET or college degree is not available and student is in the United States.)

**Immigration F and M Visa Applicants**

- TOEFL scores (if English is not your native or official language)
- Certified or notarized bank letter on official bank stationery in the amount of \$17,601 USD (must be dated within the last 3 months)
- Affidavit of Support or letter of support
- Completion of I-901 (for F, M, and J non-immigrants) and payment of SEVIS fee.

**Transfer Students**

- All of the above
- Current visa documentation
- Passport
- I-94



- I-20 or other paperwork related to current status
- **Transfer Clearance Form**

#### **Change-of-Status**

- All of the above (except Transfer Clearance Form)
- **Form I-539**
- Check or money order in the amount of \$300.00 for **Form I-539** fees
- Change-of-Status checklist from International Center for additional requirements.

## **Credits Earned Outside the College**

### **Course Credit**

Course credit awarded by other than satisfactory completion of a course at Chattahoochee Technical College may be earned as follows:

- Advanced Placement credit
- Articulation Technical Advanced Placement credit
- College Level Examination Placement (CLEP) credit
- Credit by Examination
- Military Credit (see Credit by Transfer)

Credit is awarded only in areas offered within the current curriculum of Chattahoochee Technical College and is appropriately related to the student's educational program. For additional information, please see the Registrar's section of the catalog.

A student may receive or earn up to twenty five (25) quarter credit hours through CLEP, AP, military, institutional, or other such examinations.

### **Students Seeking Readmission**

Students who have not attended for two or more quarters must submit a **Re-Admit Form** to the Office of the Registrar. Students who are readmitted are subject to the rules and regulations, and program curriculum in effect at the time of reentry. **Re-Admit Forms** must be submitted prior to the published deadline.

### **Accel Program**

Under the Accel program, an applicant may attend Chattahoochee Technical College while also attending a Georgia public high school. The applicant must adhere to the following admission regulations:

- Be at least 16 years of age and classified as a junior or senior. Exceptional students may participate prior to 11<sup>th</sup> grade. Visit the Financial Aid Office for full details.
- Complete an application with the nonrefundable application fee.
- Submit Accel program **application form** with the appropriate signatures from the student, the student's parent or guardian, and the public school official.
- Submit an official copy of high school transcript.
- Meet all assessment requirements for course placement. Accel students do not receive credit for Learning Support courses.
- Applicants desiring to take courses for transfer to the University System of Georgia must meet University System admission requirements prior to taking those courses at Chattahoochee Technical College.
- Submit the **Accel Program application form** prior to registration each quarter.
- Coursework taken in the Accel program will count towards HOPE Scholarship paid hours.
- The Accel program is only available during the academic year; courses may not be taken in the summer.

*Note: A student attending public high school full-time (all day) is not eligible for the Accel program.*

## **Dual Enrollment**

Under the Dual Enrollment program at Chattahoochee Technical College, students can earn a technical certificate of credit or technical college credits while completing their high school diploma.

The Dual Enrollment program offers students the opportunity to earn college credit and high school credit at the same time. Qualified students of the Bartow, Cherokee, Cobb, Gilmer, Paulding and Pickens county systems and area city school systems earn post-secondary and high school credit while concurrently enrolled in a high school class. Dual enrollment allows students to experience post-secondary courses, facilitating a smooth transition as they graduate from high school and continue their education in college. Please contact the Office of Admissions at Chattahoochee Technical College for further information.

### ***Who is eligible for Dual Enrollment?***

- Students who attend a high school where a dual enrollment agreement has been reached with Chattahoochee Technical College.
- Students who are classified as a junior or senior, are 16 years of age or older, and are enrolled in a career and technical education course at the high school level.
- Students who have successfully achieved regular placement test scores for their desired program.
- Students who have parental permission to be enrolled in the Dual Enrollment Program.
- Students who are interested in pursuing a technical diploma or degree after graduation.

## **Joint Enrollment Applicants**

Joint enrollment students are high school students who enroll to receive college credit before they finish high school.

Joint applicants must:

- Be a junior or senior at least 16 years old.
- Follow all admissions procedures.
- Submit documentation of approval of the high school official and parent or guardian.
- Admission of joint enrolled students is based upon an evaluation of high school records, the recommendation of high school official, and placement test scores at the program ready level.

## **Academic Residency Requirement**

According to state policy, a minimum of twenty-five (25%) of coursework in a particular program of study must be completed at Chattahoochee Technical College in order for a student to be granted a technical certificate, diploma of degree.

## **Orientation**

Prior to each academic quarter, all new students at Chattahoochee Technical College are encouraged to participate in an orientation program. Orientation is designed to acquaint students with available

services, registration procedures, rules and regulations, and academic programs. Orientation is available on campus or online prior to each academic quarter.

## TUITION AND FEES

### **Tuition**

The tuition a student is assessed each quarter varies according to the number of credit hours for which a student is enrolled, residency, and program of study. Tuition is based on the number of credit hours scheduled up to a maximum equal to the cost of 15 credit hours per quarter. *Full time enrollment for Federal Student Aid (Pell Grant, etc.) and insurance verification will remain at 12 credit hours.*

Tuition cost\* is \$40 per credit hour for in-state\*\* residents. Out-of-state students pay tuition twice the amount charged for Georgia residents. International students pay tuition four times the amount charged for Georgia residents.

The tuition schedule is as follows (and is subject to change):

Credit Hours	In-State	Out-of-State	International
1	\$40	\$80	\$160
2	\$80	\$160	\$320
3	\$120	\$240	\$480
4	\$160	\$320	\$640
5	\$200	\$400	\$800
6	\$240	\$480	\$960
7	\$280	\$560	\$1,120
8	\$320	\$640	\$1,280
9	\$360	\$720	\$1,440
10	\$400	\$800	\$1,600
11	\$440	\$880	\$1,760
12	\$480	\$960	\$1,920
13	\$520	\$1,040	\$2,080
14	\$560	\$1,120	\$2,240
15+	\$600	\$1,200	\$2,400

\* Tuition cost for the Child Development, Computer Repair, Criminal Justice Supervisor, Home Technology Integrations, Imaging Science Services, Medical Coding and Billing, Ornamental Iron Fabricator, Phlebotomy Technician, Cosmetic Esthetician, Landscape Design, and Gas Tungsten Arc Welding certificate program is \$60.00 per credit hour.

\* Tuition cost for the Print Graphics Technician is \$59.00 per credit hour.

- \* Tuition cost for the Emergency Medical Technology Intermediate certificate program is \$72.00 per credit hour.
- \* Tuition cost for the Commercial Truck Driving certificate program is \$258 per credit hour.
- \* Tuition cost for Healthcare Assistant and Healthcare Science certification programs is \$50.00 per credit hour.
- \*\* In-State Resident is defined as an individual or the status of such individual who is a United States Citizen or Eligible Noncitizen and is domiciled in the State of Georgia and meets the in-state tuition requirements of the Technical College System of Georgia.

### **Required Quarterly Student Fees**

Registration Fee.....	\$ 33.00
Student Activity Fee .....	\$ 16.00
Student Accident Insurance Fee.....	\$ 4.00
*Instructional and Technology Support Fee.....	\$ 35.00
*Facilities Fee .....	\$ 10.00

### **Program Applicable Fees**

*American Heart Association Fee .....	\$ 4.00-8.00 Depending on Course
*Name Pin Fee .....	\$ 6.50
*NLN Assessment Fee (PN) .....	\$ 67.00 Quarterly
*ATI Assessment Fee (ADN) .....	\$ 105.00 Quarterly
* Self Assessment Exam for Surgical Tech .....	\$ 30.00
*Fuel Surcharge (CTD).....	\$130.00 Quarterly
*Program Fee (PTA).....	\$100.00 Quarterly

### **Malpractice Insurance Fees (per Quarter)**

Malpractice insurance fees are charged for certain courses within the following programs. The rates are as follows:

*Cosmetology .....	\$ 2.55
*Early Childhood Care & Education .....	\$ 2.55
*Emergency Medical Technology .....	\$ 10.65
*Paramedic Technology .....	\$ 10.65
*All Other Medical/Health Programs.....	\$ 2.55

### **Other Fees**

*Application for Admission (non-refundable) .....	\$ 15.00
*Transcript Fee .....	\$ 3.00
*Exemption Exam Fee (non-refundable).....	25% of Tuition
*Diploma Replacement Fee .....	\$ 15.00
*Placement Test Fee (where permitted) .....	\$ 15.00
*GED Testing (Complete Test) .....	\$ 95.00
*Graduation Fee (non-refundable).....	\$ 30.00
*Late Registration Fee .....	\$ 25.00
*Returned Check Fee .....	\$ 25.00
*Parking Decal Replacement .....	\$ 1.00
*Telecourse Fee .....	\$ 22.00

\*ID Replacement .....\$ 5.00

\*CTC OneCard Replacement.....\$ 10.00

*\* Non-HOPE eligible fees*

***Please note that tuition and fees are subject to change at the end of any academic term without prior notice to comply with federal, state and institutional policies.***

### **Transfer of Fees**

Fees may not be transferred from one quarter to a future quarter. If a student is unable to attend school during the quarter for which fees were paid, the refund procedure will be followed.

### **Books, Tools, Uniforms, and Equipment**

- Textbooks may be required in all programs and the cost varies by program.
- Tools are required in some programs, particularly skilled and technical programs. Tools are the property of the student and essential to the occupational field. Total cost will vary among programs. Students will be given a list of tools, equipment, and kits that will be required. For additional information, please speak to your instructor.
- Students are notified if uniforms are required in their program of study.

### **Senior Citizens**

Georgians, age 62 and older, may attend credit classes and pay no tuition. Proof of age is required for the waiver, however, textbook costs and mandatory fees are assessed. Admission is available on a space available basis and does not apply to continuing education classes.

### **Auditing a Course**

A student auditing a course must pay the applicable tuition and fees for enrollment in that course.

### **Late Fees**

A \$25.00 late fee will be assessed to students' accounts should registration take place beginning the first day of the quarter or thereafter. The fee must be paid at the time of registration (or by the established deadline). Should the late fee not be paid, the student will risk being dropped from his or her class(es). There will be no late fee for students adding classes to an existing schedule.

### **Returned Checks**

Checks returned to the business office must be satisfied with cash, money order, cashier's check, or credit card.

### **Payment and Financial Aid Deadlines**

Payment and financial aid deadlines are established for each registration period. Payment and/or financial aid must be in place to cover a student's account balance. Financial obligations that are not met by the established payment and financial aid deadline will result in the student's classes being dropped.

### **Financial Obligations**

A student delinquent in the payment of any financial obligation may be dropped from courses and may not be allowed to register for another quarter until such a delinquency is removed. The student will not be issued quarterly grade reports, transcripts, or any other student records. Any student receiving notice that his or her status has been placed on hold should immediately contact the office issuing the hold.

## **Refunds**

Students withdrawing from a course by the end of the college's third instructional day of the quarter (please see the applicable quarter's calendar for the exact date and time as set by the College) and no shows shall receive a 100% refund of applicable tuition (hours below 15-hour tuition cap) and applicable refundable fees, excluding the application fee.

Students who withdraw from a course after the third instructional day (please see the applicable quarter's calendar for the exact date and time as set by the College) of the quarter shall receive no refund.

Withdrawing students receiving federal financial aid will have their awards adjusted in compliance with the Return of Title IV Aid requirements. Please see Financial Assistance section of catalog for further details.

### **CTC OneCard** *(not applicable to Appalachian and North Metro campuses for summer quarter)*

All registered students are issued the CTC OneCard. The CTC OneCard is mailed to all registered students using the address on file in the Registrar's Office. You must ensure that your address on file is accurate and is a deliverable address. Your CTC OneCard cannot be forwarded to another address .

Please note that all students must activate their CTC OneCard. This process is for all students, not only financial aid recipients.

Students must activate their new CTC OneCard at [www.ctconecard.com](http://www.ctconecard.com) and select one of the following refund preferences:

1. Free online checking account (OneAccount), or
2. Direct Deposit into your existing bank account, or
3. Paper check

Refunds will be delayed if your CTC OneCard is not activated and your refund preference is not selected.

NOTE: Students will be charged a \$20.00 card replacement fee for any CTC OneCard that has to be reordered.



## FINANCIAL ASSISTANCE

Chattahoochee Technical College has enabled thousands of students, who otherwise might not have had the opportunity, to obtain a quality postsecondary education through its various financial aid programs.

Several grants and scholarships are available to assist you with your education costs, and all you need to do is complete the free application process to find out if you are eligible.

### **How to Apply**

To apply for all types of financial aid at CTC, students should complete the Free Application for Federal Student Aid (FAFSA). Students are encouraged to complete the FAFSA on the Web at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Deadlines are posted on the Chattahoochee Technical College website.

Before you begin the FAFSA, you will need to gather certain documents. If you are a dependent student, you will also need the following documents for your parents:

- Federal income tax returns.
- W-2 forms.
- Records of untaxed benefits received.
- Current bank statements.
- Records of other savings and investments, such as stocks, bonds, and mutual funds.

If you need assistance completing the application process, please contact a financial aid advisor.

### **Additional Information Needed for FAFSA**

Chattahoochee Technical College

Title IV School Code: 005620

High school students and students possessing a bachelor's degree (or higher) should apply for financial aid by completing the GSFAPPS. (Georgia Student Financial Aid Application System) Instructions for completing the GSFAPPS can be found on the CTC website. (Please note that because GSFAPPS is a Web application, you may encounter intermittent problems with access or the ability to transmit the application. If you do, please contact the Georgia Student Finance Commission (GSFC) at 1-800-505-4732 to request assistance.)

### **Eligibility**

#### **General Eligibility Requirements**

- Meet Selective Service registration requirements (males only).
- Not be in default on any federal or state student loan. (Defaulted loans must be paid in full to meet eligibility requirements for state aid.)

- Not owe money back on a federal or state student grant. (Refunds must be paid in full to meet eligibility requirements for state aid.)
- Meet admissions requirements and be accepted into a program of study.
- Must be accepted into, enrolled in, and following the prescribed curriculum for a program of study leading to a degree, diploma or technical certificate of credit. **(Students receiving financial aid must not register for courses outside their chosen program of study.)**
- Meet eligibility requirements. Eligibility is determined by completing the Free Application for Federal Student Aid (FAFSA). Additional documentation may be required. All documentation required to determine eligibility must be received prior to any aid being awarded. Students are required to complete the FAFSA on the Web.
- The FAFSA must be renewed each academic year. The academic year begins in July with summer quarter and ends in June with the end of spring quarter. The best time to complete the new FAFSA is after you file your income taxes. High school students and students possessing a bachelor's degree (or higher) may apply for financial aid by completing the GSFAPPS. (Georgia Student Financial Aid Application System).
- Be a U.S. citizen or eligible non-citizen. Definition of eligible non-citizen: (1) a U.S. permanent resident with a Permanent Resident Card (I-551); (2) a conditional permanent resident (I-551C); or (3) the holder of an Arrival-Departure Record (I-94) from the Department of Homeland Security showing any one of the following designations: "Refugee", "Asylum Granted", "Parolee" (I-94 confirms paroled for a minimum of one year and status has not expired), or "Cuban-Haitian Entrant".

The following statuses do not meet the definition of eligible non-citizen, therefore, are not eligible for financial aid: (1) F1 or F2 student visa; (2) J1 or J2 exchange visitor visa; or (3) a G series visa (pertaining to international organizations).

- Adhere to the Satisfactory Academic Progress Policy.

### **Satisfactory Academic Progress (SAP) Policy at Chattahoochee Technical College**

Students who receive financial aid funds must maintain Satisfactory Academic Progress (SAP). Students are responsible for maintaining an acceptable level of progress regarding quality and quantity of work.

SAP is measured two ways: (1) cumulative grade point average (GPA), and (2) completion rate. Students are required to complete their educational objective within a maximum time frame based on enrollment status and program length, not to exceed 150% of the time normally required, and maintain a GPA of 2.0 or greater.

**Quality:** The GPA is computed by the Office of the Registrar on a scale of 4.0. The following grades will adversely affect a student's GPA: D, F, and WF. It should be noted that grades of I, W, and WP do not affect the student's GPA. Additionally, grades for preparatory coursework (SC, U, A\*, B\*, C\*, D\*, and F\*) do not affect the student's GPA.

**Quantity:** The completion rate is measured by the completion of 67% of all attempted classes. Letter grades that are sufficient for measuring completion include A, B, C, D, S, A\*, B\*, C\*, and D\*. Grades that are not acceptable include F, I, W, WP, WF, U and F\*. SAP is checked/reviewed quarterly.

If a student's completion rate or GPA drops below the minimum requirements in a given quarter, financial aid funds will be disbursed on Financial Aid Warning for the following quarter of enrollment. If, during that quarter, the student's completion rate or GPA remains below the minimum requirement, financial aid funds will be disbursed during the following quarter of enrollment on Financial Aid Probation. If, after receiving funds while on Financial Aid Probation, the student is not making satisfactory progress in completion rate or GPA, the student's financial aid will be Suspended. Students on Financial Aid Suspension may appeal to the Financial Aid Advisory Committee (FAAC) if they feel there were extenuating circumstances that hindered their progress. The decision of the FAAC will be final. Appeal decisions are effective the next quarter of enrollment.

### **Federal Student Aid**

Eligibility is based upon the need analysis from the Free Application for Federal Student Aid (FAFSA), and the student must be enrolled in an eligible program of study. Students enrolled in certain certificate programs may not be eligible to receive federal student aid. Students admitted under the "Learning Support" admission status, meaning they are required to take solely learning support coursework, are not eligible for federal student aid.

### **Federal Pell Grant**

The Federal Pell Grant is an award to help undergraduate students pay for their education beyond high school. For many students, Pell Grants provide a "foundation" of financial aid, to which aid from other federal and nonfederal sources may be added. Grants do not have to be repaid. The amount of financial aid a student is eligible to receive through the Pell Grant is determined by using the information on the FAFSA. The U.S. Department of Education applies a standard formula established by Congress to determine Pell Grant eligibility. The Financial Aid Office at Chattahoochee Technical College will assist you with the Pell Grant application (FAFSA). Your financial aid file must be complete by designated deadlines, or you will be required to pay your tuition and fees and later receive reimbursement, if eligible.

### **Academic Competitiveness Grant (AC Grant)**

An eligible student may receive an AC Grant of up to \$750 for the first academic year of study (first 48 quarter credit hours **and** 40 weeks of instruction) and up to \$1,300 for the second academic year of study (second 48 quarter credit hours **and** 40 weeks of instruction). To be eligible for each academic year, a student must:

- Be a U.S. Citizen or eligible noncitizen;
- Be a Federal Pell Grant recipient (Pell eligibility must be renewed each summer quarter);
- Be enrolled at least half-time in an eligible program (at least 6 credit hours per quarter);
- Be enrolled in the first or second academic year of his or her eligible program of study;
- Have completed a rigorous secondary school program of study (after January 1, 2006, if a first-year student, and after January 1, 2005, if a second-year student);
- If a first-year student, have not previously enrolled in an undergraduate program; and
- If a second-year student, have at least a cumulative 3.0 grade point average on a 4.0 scale for the first academic year.

### **Campus-Based Federal Title IV Student Aid**

Federal Work Study and Federal Supplemental Educational Opportunity Grant

Campus-based aid is awarded to students who demonstrate financial need. Financial need is the difference between the Cost of Attendance (COA) at Chattahoochee Technical College (CTC) and your Expected Family Contribution (EFC). The Cost of Attendance (COA) for student aid purposes is an estimate of the cost for a student to attend CTC. The COA includes tuition and fees, books and supplies, room, board, and living expenses. The U.S. Department of Education uses the information you provide on the FAFSA and a formula established by law to calculate your EFC. The EFC does not represent an amount of money owed to the College. It is solely used to determine financial need.

### **Federal Work Study (FWS)**

The Federal Work Study program provides jobs for students who demonstrate financial need. FWS enables students to work while attending school. FWS gives students a chance to earn money to help pay for educational expenses. FWS is subject to limited funding.

### **Federal Supplemental Educational Opportunity Grant (FSEOG)**

The Federal Supplemental Educational Opportunity Grant (FSEOG) is awarded to students who demonstrate substantial financial need. Funding is limited. FSEOG awards are limited to Pell eligible students.

## **State Student Aid**

### **HOPE Scholarship**

Georgia residents seeking an **associate degree** may be eligible for a Helping Outstanding Pupils Educationally (HOPE) Scholarship. Please contact the Financial Aid Office or visit the Chattahoochee Tech website for detailed HOPE Scholarship Georgia residency requirements.

Entering freshman: Students who graduated from high school in 1993 or later as HOPE Scholars may qualify for the HOPE Scholarship as an entering freshman. Additionally, students who completed a Home Study program, graduated from an ineligible high school, or earned a GED diploma that was awarded by the Technical College System of Georgia (TCSG) after June 30, 1993 are eligible for HOPE Scholarship payment as an entering freshman if they score in the 85<sup>th</sup> percentile or higher on a standardized college admission test such as the SAT or ACT. (Contact Financial Aid Office for further details.)

Other students may qualify if:

1. They achieve a 3.0 cumulative grade point average at the end of the 45<sup>th</sup>, 90<sup>th</sup>, or 135<sup>th</sup> quarter hour attempted. The grade average is based on all college-level credit hours attempted after high school graduation. All college-level courses taken after high school graduation are included even if previous coursework is not accepted on transfer into your program of study at Chattahoochee Technical College.
2. They achieve a 3.0 cumulative grade point average at the end of the 45<sup>th</sup> quarter hour attempted. College degree credit hours taken prior to high school graduation must be counted as attempted hours, if:
  - a. Student is not a HOPE Scholar from high school; and
  - b. Hours are accepted by Chattahoochee Technical College; and
  - c. Coursework was taken during a school term that began on or after July 1, 2008.

The HOPE Scholarship will cover tuition and HOPE approved fees (registration, student activity, and accident insurance). All students receiving the HOPE Scholarship will be reevaluated for eligibility at the 45th, 90th, and 135th quarter credit hour attempted and at the end of each spring term, regardless of spring term enrollment. Additionally, students who are enrolled for less than 12 credit hours their first three terms will be reevaluated at the end of their third term. HOPE Scholarship will pay up to 190 attempted quarter credit hours or 190 combined HOPE Scholarship, HOPE Grant, and Accel paid hours. (Contact Financial Aid Office for full details.)

HOPE Scholarship recipients enrolled in six or more credit hours receive a book allowance valued at \$100. For students enrolled in five or less credit hours, the book allowance is reduced to \$50. Students must complete the **HOPE Scholarship Evaluation Form** to be evaluated for the HOPE Scholarship.

### **HOPE Grant**

Georgia residents seeking a **diploma or certificate** at a Georgia public technical college may be eligible for a Helping Outstanding Pupils Educationally (HOPE) Grant. The HOPE Grant will pay up to 95 quarter credit hours. The Georgia HOPE Program will pay up to 190 combined HOPE Scholarship, HOPE Grant and Accel credit hours of which only 95 credit hours can be HOPE Grant.

The HOPE Grant will cover tuition and HOPE approved fees (registration, student activity, and accident insurance). HOPE Grant recipients enrolled in six or more credit hours receive a book allowance valued at \$100. For students enrolled in five or less credit hours, the book allowance is reduced to \$50. There is no additional application for the HOPE Grant

### **HOPE GED**

Georgia residents who are awarded the GED by the Technical College System of Georgia (TSCSG) are eligible for a one-time \$500 award. This award can be used toward tuition, educational costs and books at any eligible post secondary college. The student must have a completed aid application in order to be eligible for the GED Voucher award.

### **Leveraging Educational Assistance Partnership (LEAP) Grant**

Georgia's LEAP Program provides educational grant assistance to Georgia residents who demonstrate substantial financial need. LEAP is funded by State Appropriations and federal matching funds. Funding is limited.

### **Accel Program**

Georgia's Accel Program provides Georgia high school students with the opportunity to earn college degree-level credit hours as they simultaneously meet their high school graduation requirements. (Georgia residency is required.) The Accel Program will cover tuition, registration, student activity, and accident insurance fees. Accel recipients enrolled in six or more credit hours receive a book allowance valued at \$100. For students enrolled in five or less credit hours, the book allowance is reduced to \$50. Application to participate in the Accel Program is originated with the student's high school advisor. Accel is not available for the summer quarter.

### **HERO Scholarship**

The Georgia HERO (Helping Educate Reservists and their Offspring) Scholarship Program provides educational assistance to members of the Georgia National Guard and U.S. military reservists. Final eligibility determination is made by Georgia Student Finance Commission.

## **Law Enforcement Personnel Dependents Grants**

Grants of \$2,000 per academic year are awarded to eligible Georgia residents who are dependent children of Georgia law enforcement officers, prison guards, or fire fighters who were permanently disabled or killed in the line of duty.

## **Public Safety Memorial Grant**

Grant awarded to the son or daughter of any Georgia law enforcement officer, fire fighter, EMT, corrections officer or prison guard who was permanently disabled or killed in the line of duty. This program is funded by the Georgia Lottery for Education and covers the Cost of Attendance at a Georgia public post-secondary institution, minus other gift aid received, including the Law Enforcement Personnel Dependents Grant.

## **Student Loan Information**

Chattahoochee Technical College does not participate in any federal student or parent loan programs. Any student loan for which a student wishes to apply must be a "non-school-certified" loan, and the funds must be disbursed directly to the borrower/co-borrower and not funneled through Chattahoochee Technical College.

Chattahoochee Tech does not endorse or support any specific lender or student loan program/product.

All loan funds are contractual agreements between the borrower (student) and the loan holder (lender). Any disbursements should be sent directly to the borrower and made payable solely to the borrower/co-borrower. Any loan funds sent to Chattahoochee Technical College will be returned to the disbursing agent/lender.

## **Veterans Education Benefits**

Veterans' Administration (VA) benefits are available to students and their dependents who qualify. Veterans are encouraged to apply for other financial aid resources. Veterans may receive financial aid in addition to their Veteran's Education Benefits. Students may contact the VA Regional Office in Atlanta, Georgia at 1-888-442-4551 or visit the website at [www.gibill.va.gov](http://www.gibill.va.gov). More information may be obtained from the Financial Aid Office.

## **Scholarships**

CTC offers numerous community-based and merit-based scholarships to qualifying students. The award dates and application process for each of these scholarships vary. Please refer to the CTC website for scholarship availability.

## **Helpful Contact Information**

Federal Student Aid Information

800-433-3243

FAFSA on the Web

[www.fafsa.ed.gov](http://www.fafsa.ed.gov)

Georgia Student Finance Commission

800-505-GSFC

IRS

800-829-1040 or 404-522-0500

Veterans Benefits

888-442-4551

## **No Show Policy**

A "no show" is a student whose name appears on the class roster but fails to attend class the first time after his/her name appears on the roll. Any student reported as a "no show" by an instructor will be administratively withdrawn from the class.

No shows shall receive a 100% refund of applicable tuition (hours below 15-hour tuition cap) and applicable refundable fees, excluding the application fee.

Any student receiving financial aid who is reported as a “no show” will have his/her financial aid award for that class cancelled. All financial aid awards based on courses that students do not attend will be cancelled, and the student will be responsible for any applicable charges.

### **Refund Policy (Institutional)**

Students withdrawing from a course by the end of the third instructional day of the quarter (please see the applicable quarter’s calendar for the exact date and time as set by the College) and no shows shall receive a 100% refund of applicable tuition (hours below 15-hour tuition cap) and applicable refundable fees, excluding the application fee.

\*Example: Term that begins on May 1st. The last day to receive any refund is May 3rd. Refunds will only be issued for course(s) dropped on May 1st, 2nd, or 3rd. Any course(s) dropped on May 4th or later would not be eligible for any refund of tuition or fees.

Students who withdraw from a course after the third instructional day (please see the applicable quarter’s calendar for the exact date and time as set by the College) of the quarter shall receive no refund.

Withdrawing students receiving federal financial aid will have their awards adjusted in compliance with the Return of Title IV Aid requirements.

Federal Title IV Aid recipients please see below policy.

### **Refund Process for Students Receiving Federal Title IV Financial Aid (R2T4)**

#### **(Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Academic Competitiveness Grant)**

The law specifies how Chattahoochee Technical College (CTC) must determine the amount of Title IV program assistance that you earn if you withdraw from school or stop attending all of your courses for a term. The Title IV programs that are covered by this law are: Federal Pell Grants, Academic Competitiveness Grants, and Federal Supplemental Educational Opportunity Grants (FSEOGs).

When you withdraw or stop attending all courses during your period of enrollment (term in which you are registered) the amount of Title IV program assistance that you have earned up to that point is determined by a specific formula. If you received (or CTC received on your behalf) less assistance than the amount that you earned, you may be able to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by the school and/or you.

The amount of assistance that you have earned is determined on a prorata basis. For example, if you completed 30% of your period of enrollment, you earn 30% of the assistance you were originally scheduled to receive. Once you have completed more than 60% of the period of enrollment, you earn all the assistance that you were scheduled to receive for that period.

If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. CTC will automatically use all or a portion of your post-withdrawal disbursement of grant funds for

tuition and fees. The school needs your permission to use the post-withdrawal grant disbursement for all other school charges (fees not automatically paid with financial aid funds). If you do not give your permission you will be offered the funds. However, it may be in your best interest to allow CTC to keep the funds to reduce your debt at the school.

There may be some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw or stop attending because of other eligibility requirements.

If you (or CTC on your behalf) receive excess Title IV program funds that must be returned, your school must return a portion of the excess equal to the lesser of:

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

CTC must return this amount even if it didn't keep this amount of your Title IV program funds. CTC will then charge you for the Title IV program funds that the school was required to return.

If CTC is not required to return all of the excess funds, you must return the remaining amount.

Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You must make arrangements with Chattahoochee Tech or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when you withdraw or stop attending all courses for a term are separate from the Institutional Policy (see Refund Policy (Institutional) section). Therefore, you may still owe funds to the school to cover unpaid institutional charges. Chattahoochee Tech will charge you for any Title IV program funds that the school was required to return.

If you have questions about your Title IV program funds, please contact the financial aid office. You may also contact the Federal Student Aid Information Center at 1-800-4-FEDAID (1-800-433-3243). TTY users may call 1-800-730-8913.

### **Payments for Prior Terms**

Financial aid may only be awarded and disbursed for the current academic year.

#### **HOPE Grant/Scholarship:**

Per HOPE regulations, a student must file the application (FAFSA or GSFAPPS) on or before the last day of the quarter or the student's withdrawal date, whichever occurs first, in order to be paid for that quarter.

#### **Pell Grant:**

A student may be retroactively paid Federal Pell Grant within the current academic year only for classes in which he or she fully completes coursework.



## STUDENT RECORDS AND REGISTRATION

### **Credit Earned Outside College**

Course credit awarded by other than satisfactory completion of a course at Chattahoochee Technical College may be earned as follows:

- Advanced Placement Credit
- Articulation/Tech Prep (Technical Advanced Placement) Credit
- College Level Examination Placement (CLEP) Credit
- Credit by Examination
- Credit by Transfer
- Military Credit (see Credit by Transfer)

### **Advanced Placement (AP) Credit**

Students who receive a score of three (3) or higher on the College Board Advanced Placement (AP) test will be awarded appropriate credit. Official test scores should be mailed directly from the College Board to Chattahoochee Technical College's Office of the Registrar. Students who have not received confirmation of credit prior to registration should contact the Office of the Registrar. Credit will be awarded for approved AP examinations pending review by the Registrar and appropriate faculty.

### **Articulation Credit**

Chattahoochee Technical College has agreed to award credit for certain competencies learned at an accredited Georgia high school. In order to receive this credit, the student must matriculate at Chattahoochee Technical College within 18 months of high school graduation. Articulated credit will be indicated on the transcript with the letters "AC".

### **College Level Examination Placement Credit (CLEP)**

Chattahoochee Technical College will award credit for a limited number of college level subject exams but does not award credit for the general exam. For credit to be granted, the scores received must be at the 50<sup>th</sup> percentile or higher and will be awarded for the following courses:

#### **Exam**

#### **Chattahoochee Technical College Course**

Biology	BIO	1111
Calculus with Elementary Function	MAT	1113
College Algebra	MAT	1111
College Algebra-Trigonometry	MAT	1111
English Composition	ENG	1101
English Composition with Essay	ENG	1101
General Chemistry	CHM	1111
Human Growth & Development	PSY	2103
Humanities	HUM	1101
Introduction to Management	MSD	100

Introduction to Accounting	ACC	1101
Introductory Business Law	MKT	103
Introductory Macroeconomics	ECO	2105
Introductory Microeconomics	ECO	2106
Introductory Psychology	PSY	1101
Introductory Sociology	SOC	1101
Principles of Marketing	MKT	100
Trigonometry	MAT	1017

Students wishing to earn CLEP or DANTES (Defense Activity for Non-Traditional Education Support) credit for any courses not listed above should check with the Office of the Registrar for any changes that may have been made to the policy.

### **Credit by Examination (Exemption Exam)**

A currently enrolled or accepted program student may receive course credit by passing an examination if one is offered. The examination may be written and/or performance based and validates competencies in skills the student would obtain through actual enrollment in the course. Exemption exams will be given at least once per quarter.

#### **Exemption Exam Procedures**

1. To register for the exemption exam, students must contact the Office of Academic Affairs by the end of the second week of the quarter on the Appalachian Campus, North Metro Campus, or Marietta Campus.
2. A student cannot attempt to exempt a course in which he or she is currently enrolled. No exemption exam may be attempted more than once.
3. A non-refundable fee not to exceed 25% of course tuition is charged for each exam. (The fee requirement is waived for eligible articulated secondary students) This fee must be paid prior to taking the exam, and a receipt for this fee must be presented to the examiner at the time of the exam.
4. All exams are to be taken without any outside aids such as textbooks, notes, etc.
5. A minimum score of 80% (85% for Allied Health courses) must be achieved to successfully exempt a course.
6. If the student successfully exempts a course, a grade of "EX" will be assigned.
7. If the student scores below 80% on the exemption exam, the student must enroll in the class; the student may not take the exemption exam again for that particular course.
8. If the course being exempted by examination has a prerequisite course requirement, the prerequisite must be satisfied by either passing the exemption test, if available, or successfully passing the prerequisite course.
9. Students will not be allowed to take exemption exams for previously attempted courses.
10. Academic Affairs will notify the students of the results of the exams.

**NOTE:** The Office of Academic Affairs determines what courses are available for exemption testing.  
*Financial Aid will not cover the cost of exemption exam fees.*

### **Transfer of Credit**

Chattahoochee Technical College recognizes previous postsecondary coursework from regionally or nationally accredited colleges that is applicable to a student's program of study. A student who presents

credit for evaluation and transfer should be aware that the awarding of credit does not guarantee that the college subsequently attended by the student will accept those credits. A student may receive credit for courses taken at another postsecondary institution by meeting the following criteria:

- The courses must meet the quality of standards established by Chattahoochee Technical College and should consist of essentially the same content as the courses at CTC.
- An official transcript from the institution attended is on file in the Office of Admissions, verifying a grade of C or better for each course being considered for transfer credit.
- Any science, business, computer, or health occupational courses, to include all AHS courses, must have been completed within four years prior to the student's entrance into Chattahoochee Technical College.
- There are no time limits on transferability of general education courses or other occupational courses not listed above.
- Transfer courses taken on the quarter system will be awarded at the same credit hour earning.
- Transfer courses taken in a semester system will be awarded by the following conversion: semester hours multiplied by 1.5 will equal the quarter hour award.
- No credit is awarded for learning support courses.
- Courses that do not have identical course identification codes, but include essential competency areas, may transfer upon approval from the Vice President of Academic Affairs.

Full credit will be awarded for courses taken under approved standards within the Technical College System of Georgia, provided the criteria listed above are met. Transfer of credit will be indicated on the student's transcript with the letters TR. Grade points are not assigned to courses that are transferred. Chattahoochee Technical College reserves the right to review the credentials of faculty for the previously attended college as well as test the proficiency of students for coursework that is transferred in. No more than 75% of the total required hours in any program will be approved for transfer credit.

### **Military Credit**

Transfer credit for military service schools is awarded based on American Council of Education (ACE) recommendations as listed in the *Guide to the Evaluation of Educational Experiences in the Armed Services* and approval by the Registrar.

**A student may receive or earn up to twenty five (25) quarter credit hours through CLEP, AP, military, corporate, institutional, or other such examinations.**

### **Students Seeking Readmission**

Students who have not attended for two or more quarters must submit a **Re-Admit Form** to the Office of the Registrar. Students who are readmitted are subject to the rules and regulations and program curriculum in effect at the time of reentry. **Re-Admit Forms** must be submitted prior to the published deadline.

### **Academic Residency**

According to state policy, a minimum of twenty-five percent (25%) of course work in a particular program of study must be completed at Chattahoochee Technical College in order for a student to be granted a technical certificate, diploma, or degree.

## **Auditing a Course**

A student who wishes to audit a course must be admitted to the school through one of the school's four admissions classifications. Students who audit a class will receive an "AU" grade in the course and will not have the grade computed in the quarterly or cumulative grade point average. Students who register to audit a class:

- Are not allowed to receive credit for the course (however, students will be permitted to re-register for the course for credit in a subsequent quarter);
- Are required to complete a **Request to Audit Form** at the time of registration;
- Are not permitted to change from audit to credit or from credit to audit after the Drop/Add period for the quarter;
- Are cautioned to be aware that courses taken on an audit basis may not be used for certification of enrollment for many forms of financial aid or other benefits;
- Are required to pay regular tuition and fees and are subject to the same instructional requirements as other students in the class. *Financial aid will not cover classes being audited.*

## **Transient Student Status**

Students may apply for Transient Student status if they wish to attend other regionally accredited institutions and subsequently return to Chattahoochee Technical College. Application is made by obtaining a **Transient Student Request Form** from the Office of the Registrar. The student must be actively enrolled in a program of study and eligible to register at Chattahoochee Technical College, and the requested course must be a course in the student's program of study. Chattahoochee Technical College will notify students if they are not eligible for transient status. The student must meet the following before transient permission can be granted:

- Must be in good academic standing (2.0 grade point average);
- Must be regularly admitted to a program of study and eligible to register at Chattahoochee Technical College;
- Must specify course(s) to be taken at the other institution (e.g. HUM 1101);
- Requested course(s) must be in the student's declared program of study;
- Must have completed ALL required Learning Support courses;
- Must have successfully completed one quarter of study at Chattahoochee Technical College.
- Must have successfully completed prerequisites for the course at the host college.

Note: Students may not concurrently attend Chattahoochee Technical College and another institution at the same time with the intent to transfer grades without prior authorization of the Registrar from CTC.

## **Student Records (FERPA)**

The Registrar is responsible for the accurate and confidential maintenance of student records. Transcripts of educational records will contain *only* academic status information. Disciplinary action may be recorded in cases where it affects the student's eligibility to register. Disciplinary and counseling files will be maintained separately from academic records and will not be available to unauthorized persons.

The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended, affords students certain rights with respect to their education records. They are:

- The right to inspect and review the student's records within 45 days of the day the school receives a request for access. Students should submit to the Registrar written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected.
- The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. Students may ask the school to amend a record that they believe is inaccurate or misleading. They should write the Registrar, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the school decides not to amend a record as requested by the student, the school will notify the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
- The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the school in an administrative, supervisory, academic or research, or support staff position (including law enforcement personnel and health staff); a person or company with whom the school has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors or Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the school discloses education records to officials of another school, in which a student seeks or intends to enroll.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by Chattahoochee Technical College to comply with requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, S.W.,  
Washington, DC 20202-4605.

## **Directory Information**

In accordance with FERPA, the Office of the Registrar for Chattahoochee Technical College may release the following student information as directory information:

- Name
- Program of Study
- Full-/Part-time status
- Dates of attendance
- Degrees, diplomas, certificates, awards received
- Participation in student organizations or activities
- Student email address

## **FERPA Objection**

Any adult student or minor student's parent who objects to the release of this directory information under FERPA should file an objection in writing clearly stating what directory information should not be released to third parties. Forms are available in the Office of the Registrar for filing a FERPA Objection.

## **Gramm-Leach-Bliley Act**

The Financial Services Modernization Act of 1999, also known as the "Gramm-Leach-Bliley Act" or GLB Act, includes provisions to protect consumers' personal information held by financial institutions, including postsecondary institutions. The GLB Act requires that schools have in place an information security program to ensure the security and confidentiality of customer information; protect against anticipated threats to the security or integrity of such information; and guard against the unauthorized access to or use of such information. There are three principal parts to the privacy requirements: the Financial Privacy Rule, Safeguards Rule and pretexting provisions. Chattahoochee Technical College complies with the Gramm-Leach-Bliley Act. Additional information on the GLB Act can found at [www.ftc.gov/privacy/glbact/](http://www.ftc.gov/privacy/glbact/) .

## **Solomon Amendment**

Another federal law, known as the Solomon Amendment, requires Chattahoochee Technical College to release student recruitment information to military recruiters. Student recruitment information is defined as:

- Name
- Address
- Telephone number
- Age
- Major
- Date(s) of attendance
- Degree awarded

**Objection:** If you do not wish to have student recruitment information released to third parties, you may file a FERPA Objection in the Office of the Registrar.

### **Third-Party Access**

Parents of students termed “dependent” for income tax purposes also have access to the student’s educational records. As verification of the student’s dependent status, the requesting parent(s) will need to provide a copy of the most recent tax return to the Registrar. Except in the case of dependent students, parents have no access to the records of students in postsecondary institutions.

### **Transcript Requests**

Transcripts will be released only upon receipt of a *written request* that is signed by the student. A \$3 fee will be charged for each copy. Processing time is approximately seven working days from the date of receipt of transcript fee. Transcripts will *not* be issued to a student whose record indicates financial obligation to the college.

## STUDENT AFFAIRS

### **Purpose**

The purpose of Student Affairs is to support student success through quality activities and services designed to enhance academic, person, and career development. These activities and services support student learning efforts and assist them in developing skills necessary for successful completion of their educational goals.

### **Athletics**

Chattahoochee Technical College is a member of the National Junior College Athletic Association (NJCAA) and the Georgia Junior College Athletic Association (GJCAA). CTC abides by all guidelines, rules, and regulations as outlined in each organization's constitution and by-laws. All athletes must meet the eligibility requirements as outlined by the NJCAA and the GJCAA to qualify for participation in any sports team at CTC. Students from any campus may participate in athletics; however, many of the teams hold practices and/or games at or near the Marietta campus. CTC is a member of the Region XVII conference. As of fall quarter 2008, CTC participates in two sports: cross country and track and field. Additional sports teams may be added as requested by the student body and approved by the Athletic Department. For more information about athletics, contact the Athletic Director at 770-528-4567.

### **Campus Life**

The Office of Campus Life coordinates the activities of the Student Government Association (SGA) and all other organizations on campus. Students attend leadership conferences and regional/national conventions in their respective fields. A listing of student organizations and clubs at Chattahoochee Technical College may be found in the *Student Organizations & Honors* section of this catalog.

### **Career Services**

Career Services is responsible for helping students choose careers, write resumes, and search for jobs. Career Services establishes relationships with employers who recruit on campus.

The primary purpose of the Career Services is to make available:

- Current job listings for full- and part-time jobs.
- Career counseling and assessment
- FOCUS, a computerized career planning system.
- Individual assistance with writing cover letters and resumes.
- Job interview preparation.
- Resume, interview, and job search workshops.
- Career development resources and handouts.
- Job market and salary information.
- On-campus interviews/recruitment by local, state, and regional employers.
- Employer information and employment applications.



## **Service Learning**

Service Learning combines classroom instruction with community service, focusing on critical, reflective thinking as well as personal and civic responsibility. Service Learning is almost always integrated into a regular academic course that requires attending regular class meetings and demonstrating an understanding of course concepts by showing how service at a non-profit agency relates to course content through classroom discussion, reflective journals, papers, and/or exams. Learn more at <http://ctc.slpro.net>

## **Disability Services**

Chattahoochee Technical College provides support services for students with disabilities. These services ensure program accessibility and reasonable accommodation to individuals defined as disabled under Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and the Americans with Disabilities Amendments Act of 2008. A disability is defined as any condition that substantially limits one or more of life's major activities. "Major life activities" include such functions as major bodily functions, carrying for oneself, performing manual tasks, seeing, hearing, eating, speaking, sleeping, walking, standing, lifting, bending, learning, reading, communicating, concentration, thinking, and working. The condition may be permanent or temporary.

In order to receive accommodations at Chattahoochee Technical College, it is the student's responsibility to self-disclose this disability to the Disability Services Coordinator. Documentation of the disability is required and this documentation must indicate that the requested accommodations are necessary for "participation in the college's educational programs."

Services provided include but are not limited to the following: registration assistance and priority registration, orientation to campus, institutional test modification, reader, note taker, use of tape recorder, copying service, assistance in obtaining books in alternative formats, assistive FM listening devices, assistive technology and software, c-print services for the hard of hearing, interpreter services for the deaf, accessible classrooms, accessible parking, and information and referral to campus and community support services.

Chattahoochee Technical College strives to provide, within reason, appropriate resources, services and auxiliary aids to allow each qualified person with a documented disability equitable access to educational programs, social experiences and career opportunities.

Inquiries concerning the application, policies, and practices of the American with Disabilities Act for Chattahoochee Technical College may be addressed to one of the following:

- **Appalachian Campus** – ADA/Section 504 Coordinator, Kim Ellis at 100 Campus Drive, Jasper, GA 30143, Building 100, Room 114. Phone: 706-253-4422.
- **Marietta Campus** – ADA/Section 504 Coordinator, Mary Frances Bernard at 980 South Cobb Drive, Marietta, GA 30060, Building G, Room 1125. Phone: 770-528-4529.
- **North Metro Campus**- ADA/Section 504 Coordinator, Cheri Mattox at 5198 Ross Road, Acworth, GA 30102, Building G, Room 1125. Phone: 770-975-4000.

## **Special Populations**

The Special Populations Program is designed to serve as a resource for single parents, single pregnant women, displaced homemakers, and economically disadvantaged students. Special populations include:

- Single Parents- Individual with custody of a minor child or children.
- Single Pregnant Women
- Displaced Homemakers- Adults who have been dependent on the income of a family member and no longer supported by that income; have been performing unpaid labor in the home and as a result have diminished marketable skills; and have difficulty securing employment.
- Economically Disadvantaged - Any student who is a Pell Grant recipient, or is receiving federal assistance such as Food Stamps and/or Medicaid.

Support Services may include institutional and community resource referrals, career assessment and advisement to assist in developing a career path. Workshops such as life skills, job readiness, money and stress management, and employability skills workshops are a sample of the workshops available to our Special Population students.

A text book lending program is available to first quarter students. Referral forms are available two weeks prior to the first day of the quarter from Chattahoochee Technical College Financial Aid Offices.

The Special Populations Offices are located on the Appalachian Campus at 100 Campus Drive, Jasper, GA 30143, Building 100, Room 114, telephone number 706-253-4422; the Marietta Campus at 980 South Cobb Drive, Marietta, GA 30060-3398, Building C, Room 1102, telephone number 770-528-4560; and the North Metro Campus at 5198 Ross Road, Acworth, GA 30102 located in Room 101E in the Business Administration building, telephone number 770-975-4023.

## **Counseling**

Chattahoochee Technical College provides students with a wide range of counseling and supportive services that focuses on helping students with educational, personal and career concerns. The staff will also help students establish personal and career goals, build classroom success skills, and develop strategies to become more productive students and future employees. Limited personal counseling as it relates to the educational experience is also available. Career counseling is provided based on the needs, interests, and aptitudes of the potential student. Our mission is to provide self-help strategies that assist students succeed in postsecondary education. When appropriate, students will be referred to community agencies and/or other institutions to give them every opportunity to locate the help they need. To request assistance, students should contact the Student Affairs Office on their campus.

## **Decision-Making Process**

Student feedback and opinions play a significant role in institutional decisions affecting their interests. Students may also participate in the decision making process at Chattahoochee Technical College through the Student Government Association (SGA), student professional organizations, task forces and committees, focus groups, various advisory committees, staff selection committees, and written evaluations of courses and services offered. The SGA plans college-wide activities and service projects each year. A comprehensive student satisfaction inventory is also given to large groups of students every other year to gather feedback on current issues and services provided. Students also contribute to decision-making through input they give on surveys and evaluations throughout the year such as the Graduating Student Survey.

## **Distance Learning**

Chattahoochee Technical College offers a growing number of distance learning courses. Many other courses have a significant online component. Taking an online course can be a great learning experience; however, to be successful requires technical skills not required in a face to face or video conferencing system class. To be successful also requires the student to have certain basic computer and internet skills as well as access to a computer. Online students have access to the same services provided to on-campus students using the college's website and online access to other services.

## **Housing**

Chattahoochee Technical College is a nonresidential college and does not maintain dormitory facilities.

## **Insurance**

Credit students are enrolled in a student accident insurance program. Coverage is provided for activities on-campus as well as those activities sponsored by the college. Students enrolled in Allied Health or Cosmetology clinical classes shall also purchase professional liability insurance.

## **International Center/ International Services**

The International Center provides services that support the college's non-immigrant, international, permanent resident, exchange, and foreign-born student population. It provides pre-admission to post-graduation assistance. Programs that support the international community and international initiatives are directed through the International Center/International Services.

Services include assisting international students with special admission requirements, visa issues, and other matters related to the admission process.

Visa advisement includes: Issuance of I-20's, travel documents, work permission, change of status, reinstatements, documents for dependents and SEVIS record management.

Additional services include counseling and advisement for academic, personal, financial and cross-cultural adjustment. International Services also offers an international student orientation, student advocacy, and assistance with obtaining insurance, social security numbers, driver's licenses, and tax information for nonresidents.

The International Center is involved in various international programs. Programs include participation in student exchange programs, study abroad, and the International Club (an active support group of the international community). The International Education Week Festival is a major event on campus highlighting CTC's international community with cultural events and professional discussions on global topics of interest.

The telephone numbers for International Center/International Services on the Marietta Campus are 770-528-5804 or 770-528-4528.

## **Student Identification Cards**

All students are required to have a validated identification card. ID cards must be presented to check out books from the library, to have access to computer labs, and to gain admission to various student activities. New students receive an ID card free of charge; replacement cards cost \$5. ID cards for new students are made at the beginning of each quarter. ID cards for returning students are validated at the various campuses. Students must show a paid tuition receipt.

## **Student Right to Know**

Every postsecondary institution is required by law to disclose its graduation rates annually. Students attend technical colleges for a variety of reasons. While many students attend with the intention of completing a program of study, others may desire only to upgrade their skills to a point sufficient for initial employment or job promotion or to transfer to a senior-level college or university. Contact the office of the Vice President of Student Affairs for the current college graduation rates.

## **Student Organization and Honors**

Students are given the opportunity to join various organizations and clubs to enhance their postsecondary educational experience. Various student activities are planned both on and off campus. For information concerning organizational membership, please contact the Campus Life Office.

## **Student Organizations**

### **Allied Health Association (AHA) and Nursing Club (NC)**

Allied Health Association is an organization that aims to provide healthcare professionals with skills, knowledge, and experiences that will help them deliver total quality patient care. To accomplish this goal, educational opportunities are offered via guest speakers, shared experiences, and member presentations.

### **Association of Information Technology Professionals (AITP)**

Association of Information Technology Professionals is a student branch of a national professional organization. This chapter was founded in 1968 and is designed for students planning careers in information technology. The chapter has monthly meetings with speakers from area companies. Local competition winners compete at regional and national conferences.

### **Association on Young Children (AYC)**

This organization will promote public awareness of the importance of quality early childhood programs for children. The organization promotes Child Literacy Strategies and other important issues.

### **Automotive Club (AC) and Power Sports Club (PSPC)**

These clubs exist primarily for students studying in these fields. Members work on projects and further expand their knowledge in this industry.

### **Christian Fellowship Club**

Membership is open to all students currently enrolled at Chattahoochee Technical College. The club exists to provide regular opportunities to study and discuss the Bible, worship and pray, all in a group setting which also provides opportunities for fellowship, encouragement and spiritual development among members.

### **Entertainment Technology Council (ETC)**

This organization's purpose is to enhance the member skills to enter the broadcast industry including film, television, radio and news media.

**Horticulture Club (HC)**

HC exists primarily for students studying environmental horticulture. Activities are geared toward furthering their knowledge and contacts in the horticulture industry

**Institute of Electrical and Electronics Engineers (IEEE)**

Institute of Electrical and Electronics Engineers is the world's largest technical professional society. Today, IEEE includes 48,000 students within a total membership of 320,000 who conduct and participate in its activities in 147 countries. Student members participate in monthly meetings, technical seminars, and regional student conferences. Graduates may upgrade their membership to continue their association with IEEE.

**International Club**

The International Club acts as an active support group of the International Community. It serves as a focal point for International student initiatives, concerns, and social functions. The Club sponsors an annual celebration of International Education Week highlighting the cultural diversity of the college and its educational programs of interest. Club members practice cross-cultural skills as they learn to be global leaders and participate in service projects. Selected Club members participate in the annual Georgia International Leadership Conference.

**Lambda Nu**

Lambda Nu is a national honor society for the radiologic and imaging sciences. Its objectives are to foster academic scholarship and promote research and investigation in the radiologic and imaging sciences.

**National Technical Honor Society (NTHS)**

NTHS is a national organization with the goal of honoring outstanding technical college students. Membership is based on GPA and number of hours completed.

**Older Wiser Learners (OWLS)**

OWLS' purpose is to aid the transition of older students into the social and academic life at Chattahoochee Technical College. OWLS provides a supportive environment assisting students entering college after a period of absence from academic life or beginning higher education for the first time. Members provide information on services offered and maintain a line of communication with faculty and administration.

**Performing Arts Team (PAT)**

PAT exists for students interested in the performing arts. Specifically, activities are in the form of dance, cheerleading, and skits. The PAT dance team has performed at events such as campus festivals and Open House in the past.

**Phi Beta Lambda (PBL)**

Phi Beta Lambda is a student branch of a national organization that provides opportunities for students who have career plans in business and office occupations. Students hold monthly meetings, sponsor service projects, and participate in state conferences and competitions.

**Professional Land Care Network (PLANET)**

The professional Land Care Network is an organization for students in the Environmental Horticulture program. PLANET participates in garden tours, seminars, industry-related trade shows, and PLANET Student Field Day and Career Day. This organization provides an opportunity for members to improve their leadership skills and explore careers in the horticulture field.

**Public Safety Club**

The club exists primarily for students planning to enter public safety careers in criminal justice, paramedics/EMT, fire science, and any other related field. In addition to regular meetings, students also take trips to enhance their knowledge in the field, such as an earlier trip to Philadelphia to learn about the U.S. Constitution.

**Rotaract**

Rotaract is a subsidiary of Rotary Clubs International and is designed especially to meet the needs of college students. The North Metro Campus Rotaract Club is sponsored by the Cartersville Rotary Club. The two clubs work together in various community service activities. Its goals include opportunities to develop professional and leadership skills and to provide activities to serve the community.

**Science & Math Club**

The Science and Math Club promotes awareness of, and appreciation for, science and mathematics; it aims to highlight the effects of science and mathematics on today's society. The purpose of the club is to provide activities that allow students to see how math and science are utilized in all aspects of life.

**SKILLS-USA**

SKILLS-USA is a national organization serving teachers and high school and college students who are preparing for careers in trade, technical and skilled service occupations, including health fields. The organization's purpose is to complement student skills training with personal development. Students learn such qualities and attitudes as leadership, citizenship, self-respect, and high standards of craftsmanship and ethics. Students may participate in state and national competitions. It was formerly known as VICA (Vocational Industrial Clubs of America).

**Student Government Association (SGA)**

Student Government Association promotes activities and provides services that contribute to the cultural, social, moral, and intellectual development of students. SGA is composed of representatives from each club plus members-at-large who plan school-wide activities and service projects.

**White Hat Brigade (WHB)**

This organization's purpose is to enhance member skills to enter the culinary industry. Members have the opportunity to meet with professionals as well as participate in competitions.

**Student Honors****Georgia Occupational Award of Leadership (GOAL)**

Georgia Occupational Award of Leadership is a recognition program jointly coordinated by Chambers of Commerce, businesses, and the Technical College System of Georgia. Its purpose is to honor outstanding technical education students. The GOAL winner serves as the statewide student of the year and ambassador for technical education in Georgia.

**National Technical Honor Society (NTHS)**

National Technical Honor Society rewards scholastic achievement in technical education. The organization inducts students who are nominated and who meet established criteria, including a 3.8 grade point average.

## **GENERAL POLICIES AND PROCEDURES**

### **Standard of Conduct**

One mission of Chattahoochee Technical College is to provide technical and adult education programs for the people of Georgia. To fulfill this mission, Chattahoochee Technical College must provide opportunities for intellectual, emotional, social, and physical growth. Technical College students assume an obligation to act in a manner compatible with the fulfillment of the mission. The Technical College community recognizes its responsibility to provide an atmosphere conducive to growth. With these principles in mind, Chattahoochee Technical College establishes this Student Code of Conduct.

The administration reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when, in the judgment of college officials, a student's conduct disrupts or threatens to disrupt the college community, appropriate disciplinary action will be taken to restore and protect the atmosphere of collegiality and mutual respect on campus. This procedure is intended to provide an orderly protocol for handling disciplinary cases in accordance with the principles of due process and justice.

### **Student Rights and Responsibilities**

Students of Chattahoochee Technical College are guaranteed all of the rights, privileges and freedoms granted to a citizen of the United States. In addition, they are entitled to an environment that is conducive to learning and individual growth. To this end, students enrolled at Chattahoochee Technical College assume a citizen's responsibility to abide by federal, state, and local laws. Violations of statutory laws, or of Chattahoochee Technical College student conduct regulations or other Technical College System of Georgia policies, rules and regulations may lead to disciplinary actions by Chattahoochee Technical College. These regulations do not deny any previously guaranteed rights and privileges, but ensure a pleasant educational environment for all Chattahoochee Technical College students.

### **Definitions**

1. The term "student" includes all persons taking courses at the Technical College, both full-time and part-time. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the Technical College are considered "students."
2. The term "faculty member" means any person hired by the Technical College to conduct teaching, service, or research activities.
3. The term "Technical College official" includes any person employed by the Technical College, performing assigned administrative responsibilities.
4. The term "member of the Technical College community" includes any person who is a student, faculty member, Technical College official or any other person employed by the Technical College.



5. The term "Technical College premises" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the Technical College (including adjacent streets and sidewalks).
6. The term "Student Organization" means any number of persons who have complied with the formal requirements for Technical College recognition.
7. The term "Judicial Body" means any person or persons authorized by the President to determine whether a student has violated the Student Code or other regulations and to recommend imposition of sanctions.
8. The term "Judicial Advisor" means a Technical College Official authorized on a case-by-case basis by the President to impose sanctions upon students found to have violated the Student Code. The President may authorize a Judicial Advisor to serve simultaneously as a Judicial Advisor and the sole member or one of the members of a judicial body. Nothing shall prevent the President from authorizing the same Judicial Advisor to impose sanctions in all cases. Unless otherwise noted, the "Judicial Advisor" of the Technical College is the Student Disciplinary Officer.
9. The term "Appellate Board" means any person or persons designated by the President to consider an appeal from a judicial body's determination that a student has violated the Student Code, other regulations, or from the sanctions imposed by the Judicial Advisor. The President may serve as the Appellate Board.
10. The term "shall" is used in the imperative sense.
11. The term "may" is used in the permissive sense.
12. The term "policy" is defined as the written regulations of the Technical College as found in, but not limited to, the Student Code of Conduct, Student Handbook(s), Residence Hall Handbook(s), Technical College Catalog(s), the Technical College Policy Manual, and the Policy Manual approved by the State Board for the Technical College System of Georgia.
13. The term "System" means the Technical College System of Georgia.
14. The term "business days" means, for disciplinary purposes, weekdays that the college administrative offices are open.
15. The term "Continuing Relationship" means any person who has been enrolled as a student and may enroll in the future as a student at the Technical College.
16. The term "Academic Misconduct" means any incident involving an act which affects the evaluation of a student's academic performance or achievement (i.e. cheating, plagiarism, etc.)
17. The term "Student Disciplinary Officer" refers to the person designated by the President to administer this procedure.

## **Proscribed Conduct**

1. Jurisdiction of the Technical College.

Generally, Technical College jurisdiction and discipline shall be limited to conduct which occurs on Technical College premises, off-campus classes, activities or functions sponsored by the Technical College, or which adversely affects the Technical College Community and/or the pursuit of its objectives.

## 2. Conduct Rules and Regulations

Any student found to have committed the following misconduct is subject to disciplinary sanctions:

a) Acts of dishonesty, including but not limited to the following:

- i) Cheating, plagiarism, or other forms of academic dishonesty.
- ii) Furnishing false information to any Technical College official, faculty member or office.
- iii) Forgery, alteration, or misuse of any Technical College document, record, or instrument of identification.
- iv) Tampering with the election of any Technical College recognized student organization.

b) Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other Technical College activities, including its public-service functions on or off campus, or other authorized non-Technical College activities, when the act occurs on Technical College premises.

c) Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or other conduct which threatens or endangers the health or safety of any person.

d) Attempted or actual theft of and/or damage to property of the Technical College or property of a member of the Technical College community or other personal or public property.

e) Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization.

f) Failure to comply with directions of Technical College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.

g) Unauthorized possession, duplication or use of keys to any Technical

College premises or unauthorized entry to or use of Technical College premises.

h) Violation of published Department or Technical College policies, rules or regulations including, but not limited to, rules imposed upon students who enroll in a particular class or program.

i) Violation of federal, state or local law on Technical College premises or at Technical College sponsored or supervised activities.

j) Use, possession or distribution of narcotic or other controlled substances except as expressly permitted by law.

k) Use, possession or distribution of alcoholic beverages or public intoxication on Technical College premises or at off-campus activities sponsored by the Technical College.

l) Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on Technical College premises.

m) Participation in a campus demonstration that disrupts the normal operations of the Technical College and infringes on the rights of other members of the Technical College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction that unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.

n) Obstruction of the free flow of pedestrian or vehicular traffic on Technical College premises or at Technical College sponsored or supervised functions.

o) Conduct that is unbecoming to a student, including but not limited to, conduct that is disorderly, lewd, or indecent; a breach of peace; or aiding, abetting, or procuring another person to breach the peace on Technical College premises or at other locations where classes, activities, or functions sponsored or participated by the Technical College may be held.

p) Theft or other abuse of computer time, including but not limited to:

- i) Unauthorized entry into a file, to use, read, or change the contents, or for any other purpose.

- ii) Unauthorized transfer of a file.
- iii) Unauthorized use of another individual's identification and password.
- iv) Use of computing facilities to interfere with the work of another student, faculty member or Technical College Official.
- v) Use of computing facilities to send obscene or abusive messages.
- vi) Use of computing facilities to interfere with normal operation of the Technical College computing system.
- vii) Violation of the Department's Acceptable Computer and Internet Use policy.

q) Abuse of the Judicial System, including but not limited to:

- i) Failure to obey the summons of a judicial body or Technical College official.
- ii) Falsification, distortion, or misrepresentation of information before a judicial body.
- iii) Disruption or interference with the orderly conduct of a judicial proceeding.
- iv) Initialing a judicial proceeding knowingly without cause.
- v) Attempting to discourage an individual's proper participation in, or use of, the judicial system.
- vi) Attempting to influence the impartiality of a member of a judicial body prior to, and/or during the course of, the judicial proceeding.
- vii) Harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during, and/or after a judicial proceeding.
- viii) Failure to comply with the sanction(s) imposed under the Student Code.

- ix) Influencing or attempting to influence another person to commit an abuse of the judicial system.

r) Use of tobacco products in campus buildings except in marked designated smoking areas.

## **PROCEDURE:**

### **Filing a Complaint**

1. Any member of the Technical College Community may file a complaint with the Student Disciplinary Officer against any student for a violation of the Student Code of Conduct. The individual(s) initiating the action must complete a **Student Code of Conduct Complaint Form**, and forward it directly to the Student Disciplinary Officer or his/her designee.
2. Academic Misconduct may be handled using this procedure or a separate Academic Misconduct Procedure at the discretion of the President.
3. Investigation and Decision
  - a. Within five business days after the complaint is filed, the Student Disciplinary Officer or his/her designee shall complete a preliminary investigation of the incident, and schedule a meeting with the student against whom the complaint was filed in order to discuss the incident and the charges. In the event that additional time is necessary, the student will be notified. After discussing the complaint with the student, the Student Disciplinary Officer or his/her designee shall determine whether the student is guilty of the alleged conduct, and whether the alleged conduct constitutes a violation of the Student Code of Conduct. If the student fails to appear at the meeting, he or she will be considered guilty and the appropriate actions will be taken.
  - b. In the event that a complaint alleges violations of the Student Code of Conduct by more than one student, each student's disciplinary proceeding, as well as any appeals relating to that proceeding, shall be conducted individually.
  - c. If the Student Disciplinary Officer or his/her designee determines that the student is guilty of a violation of the Student Code of Conduct, he/she shall impose one or more disciplinary sanctions consistent with those described below. If the Student Disciplinary Officer or his/her designee determines that the alleged conduct did not occur, or that the conduct was not a violation of the Student Code of Conduct, he/she shall not impose any disciplinary sanctions on the student and the investigation shall be closed.

### **Disciplinary Sanctions**

1. After a determination that a student has violated the Student Code of conduct, the Student Disciplinary Officer or his/her designee may impose one or more of the following sanctions:

- a. **Restitution** – A student who has committed an offense against property may be required to reimburse the Technical College or other owner for damage to or misappropriation of such property. Any such payment in restitution shall be limited to the actual cost of repair or replacement.
- b. **Reprimand** – A written reprimand may be given any student. Such a reprimand does not restrict the student in any way, but it signifies to the student that he/she is in effect being given another chance to conduct himself/herself as a proper member of the Technical College community, and that any further violation may result in more serious sanctions.
- d. **Restriction** – A restriction upon a student's privileges for a period of time may be imposed. This restriction may include but is not limited to denial of the right to represent the Technical College in any way, denial of use of facilities, alteration or revocation of parking privileges, or restrictions from participating in extracurricular activities.
- e. **Disciplinary Probation** – Continued enrollment of a student on probation may be conditioned upon adherence to specified terms. Any student placed on probation will be notified of the terms and length of probation in writing. Any conduct determined after due process to be in violation of these terms while on probation may result in the imposition of more serious disciplinary sanctions, as specified by the terms of probation.
- f. **Failing or lowered grade** – In cases of academic misconduct, the Student Disciplinary Officer or his/her designee will make a recommendation to the Vice President for Academic Affairs or his/her designee who may authorize the instructor to award a failing or lowered grade in the course, a loss of credit on the assignment or examination, and may impose other additional sanctions including suspension or dismissal from the Technical College.
- g. **Disciplinary Suspension** – If a student is suspended, he/she is separated from the Technical College for a stated period of time. Conditions of reinstatement, if any, must be stated in the notice of suspension.
- h. **Disciplinary Expulsion** – Removal and exclusion from the Technical College, Technical College controlled facilities, programs, events, and activities. A record of the reason for the student's dismissal is maintained by the Student Disciplinary Officer or his/her designee. Students who have been dismissed from the Technical College for any reason may apply in writing for reinstatement twelve (12) months following the expulsion. If approval for reinstatement is granted, students will be placed on disciplinary probation for a specified term. The probationary status may be removed at the end of the specified term at the discretion of the Student Disciplinary Officer or his/her designee.
- i. **Interim Disciplinary Suspension** – As a general rule, the status of a student accused of violations of the Student Code of Conduct should not be altered until a final determination is made regarding the charges against him/her. However, interim

suspension may be imposed upon a finding by the Student Disciplinary Officer or his/her designee that the continued presence of the accused student on campus constitutes a potential or immediate threat to the safety and well-being of the accused student or any other member of the Technical College community or its guests, or that the continued presence of the student on campus creates a risk of substantial disruption of classroom or other Technical College-related activities.

## **2. Violation of Federal, State, or Local Law**

- a. If a student is convicted or pleads Nolo Contendere to an off-campus violation of federal, state, or local law, but not with any other violation of the Student Code of Conduct, disciplinary action may be taken and sanctions imposed for misconduct that is detrimental to the Technical College's vital interests and stated mission and purpose.
- b. Disciplinary proceedings may be instituted against a student charged with violation of a law that is also a violation of the Student Code of Conduct if both violations result from the same factual situation, without regard to criminal arrest and/or prosecution. Proceedings under this Student Code of Conduct may be carried out prior to, simultaneously with, or following criminal proceedings.
- c. When a student is charged by federal, state, or local authorities with a violation of law, the Technical College will not request or agree to special consideration for that individual because of his/her status as a student. The Technical College will cooperate fully with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators. Individual students, acting in their personal capacities, remain free to interact with governmental representatives as they deem appropriate.

## **3. Conditions of Disciplinary Suspension and Expulsion**

- a. A student who has been suspended or expelled from the Technical College shall be denied all privileges afforded a student and shall be required to vacate Technical College premises at a time determined by the Student Disciplinary Officer or his/her designee.
- b. In addition, after vacating the Technical College Premises, a suspended or expelled student may not enter upon the Technical College premises at any time, for any purpose, in the absence of written permission from the Student Disciplinary Officer or his/her designee. A suspended or expelled student must contact the Student Disciplinary Officer or his/her designee for permission to enter the Technical College premises for a limited, specified purpose.
- c. If the student seeks to submit a signed **Disciplinary Sanction Appeal Form**, the Student Disciplinary Officer or his/her designee must accept the Form by mail or fax if he/she refuses the student's request to enter the Technical College premises for that specified purpose.
- d. A scheduled appeal hearing before the Judicial Body shall be understood as expressed permission from the Student Disciplinary Officer or his/her designee for a student to enter the Technical College premises for the duration of that hearing.

**Mediation**

At the discretion of the President, the college may adopt a mediation procedure to utilize prior to the Appeals set forth herein.



## **Appeals Procedure**

1. A student who wishes to appeal a disciplinary decision by the Student Disciplinary Officer or his/her designee must file a written notice of appeal through the President's Office for review by the Judicial Body within five business days of notification of the decision.
2. The student will then have the right to appear in a hearing before a Judicial Body assigned by the President or his/her designee within 10 business days to present evidence and/or testimony. The student has the right to be assisted by any advisor he/she chooses, at his/her own expense. The student is responsible for presenting his/her own case and, therefore, advisors are not permitted to speak or to participate directly in any hearing before a Judicial Body. The Committee will consist of two faculty members, one staff member and two students. There shall be a single verbatim record, such as a tape recording, of all hearings before the Judicial Body. The record shall be the property of the Technical College. The Chairperson of the Judicial Body shall notify the President and the Student Disciplinary Officer in writing of the Judicial Body's decision. The Technical College President or his/her designee will notify the student in writing of the Committee's decision and the opportunity to appeal directly to the President.
3. In the event that the student chooses to contest the decision of the Student Judicial Committee, he/she has the right to appeal the decision to the President of the College within five business days of notification of the Committee's decision. The appeal to the President shall be in writing. The President shall only consider evidence currently in the record, new facts not brought up in earlier stages of the appeal shall not be considered. The President shall deliver his/her decision to the student within 10 business days. The decision of the President shall be final and binding.

## **Document Retention**

The Student Disciplinary Officer or his/her designee shall retain a copy of all documents concerning complaints, investigations, administrative actions, and communications in relation to any incident that resulted in a disciplinary investigation of any kind against a student. The Student Disciplinary Officer or his/her designee will also retain records of any disciplinary appeals filed by the affected student, as well as the resulting record of appeal and decision submitted by the Student Judicial Committee. A record of the final decision must also be retained, in the event that the decision is appealed to the President. All records specified in this section shall be retained for a period of five years.

## **Grievance Policy**

Chattahoochee Technical College is in compliance with the rules and regulations for the administration of Title VI, Title IX, Section 504, and the Age Discrimination Act contained in requirements for recipient to issue notice of nondiscrimination. The Title II regulation also contains a notice requirement that applies to all government, whether or not they receive federal aid.

The Technical College System of Georgia and Chattahoochee Technical College do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, disabled veteran, veteran of the Vietnam Era, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the

operation of all educational programs and activities including admissions policies, scholarship and loan programs, athletic and other System and Chattahoochee Technical College-administered programs. It also encompasses the employment of personnel and contracting for goods and services.

The Technical College System of Georgia and Chattahoochee Technical College shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

### **Grievance Procedures**

The following procedures are to be used in reporting and settling grievances in regard to the policy listed above.

All student grievances or complaints alleging action of a discriminatory nature shall be addressed, in person or writing to:

- **Appalachian Campus** – Title IX Coordinator, Kathy Bernard at 100 Campus Drive, Jasper, GA 30143, Building 100, Room 109. Phone: 706-253-4506.
  - **Marietta Campus** – Title IX Coordinator, Stella Sessum at 980 South Cobb Drive, Marietta, GA 30060, Building C, Room 1102. Phone: 770-528-4484.
  - **North Metro Campus**- Title IX Coordinator, Cheri Mattox at 5198 Ross Road, Acworth, GA 30102, Building G, Room 1125. Phone: 770-975-4000.
1. Resolution of complaint will be resolved through formal and/or informal meetings with faculty, staff, students, and appropriate administrators.
  2. All information collected and parties in the complaint will be kept confidential and all parties to the complaint will be protected from retaliation.
  3. The Title IX Coordinator shall within 20 working days conduct a thorough and impartial investigation of the matter. The findings of this inquiry will be reported in writing to the college administration.
  4. Notice of outcome(s) shall be made to the complainant by the appropriate Vice President within 25 working days.
  5. The decision of the Administrator may be appealed to the President with further appeals respectively to the Chattahoochee Technical College Board of Directors, Commissioner, Technical College System of Georgia, and the Board of the Technical College System of Georgia..

### **Americans with Disabilities Act (ADA)**

Chattahoochee Technical College does not discriminate on the basis of race, color, religion, sex, national origin, age, academic or economic disadvantage, or disability in the provision of services, programs, or activities. Chattahoochee Technical College strives to provide, within reason, appropriate resources, services, and auxiliary aids to allow each qualified person – with a documented disability – equitable access to educational programs, social experiences, and career opportunities.

- **Appalachian Campus** – ADA/Section 504 Coordinator, Kim Ellis at 100 Campus Drive, Jasper, GA 30143, Building 100, Room 114. Phone: 706-253-4422.
- **Marietta Campus** – ADA/Section 504 Coordinator, Mary Frances Bernard at 980 South Cobb Drive, Marietta, GA 30060, Building G, Room 1125. Phone: 770-528-4529.

- **North Metro Campus-** ADA/Section 504 Coordinator, Cheri Mattox at 5198 Ross Road, Acworth, GA 30102, Building G, Room 1125. Phone: 770-975-4000.

## **Sexual Harassment**

Chattahoochee Technical Colleges prohibit sexual harassment and harassment on the basis of race, color, creed, gender, national or ethnic origin, religion, disability, age, political affiliation or belief, disabled Veteran, veteran of the Vietnam Era, or citizenship status (except in those special circumstances permitted or mandated by law). Sexual harassment is a form of gender discrimination and is a violation of State and Federal law. Sexual harassment is defined to include unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature. Such conduct is prohibited when the behavior is directed to an individual because of his or her gender and (1) when submission to such conduct is made either explicitly or implicitly a term or condition of instruction, employment or otherwise full participation in department or college life; (2) submission to or rejection of such conduct is considered in evaluating a person's academic work or job performance or (3) such conduct has the purpose or effect of interfering with a person's academic or job performance; creating a sexually intimidating, hostile, or offensive working or educational environment; or interfering with one's ability to participate in or benefit from an educational program or activity. All persons who believe that they are or may have been victims of improper harassment are encouraged to seek resolution promptly with:

- **Appalachian Campus** – Title IX Coordinator, Kathy Bernard at 100 Campus Drive, Jasper, GA 30143, Building 100, Room 109. Phone: 706.253.4506.
- **Marietta Campus** – Title IX Coordinator, Stella Sessum at 980 South Cobb Drive, Marietta, GA 30060, Building C, Room 1102. Phone: 770-528-4484.
- **North Metro Campus-** Title IX Coordinator, Cheri Mattox at 5198 Ross Road, Acworth, GA 30102, Building G, Room 1125. Phone: 770.975.4000.

## **Drug Free Schools and Communities Act**

Chattahoochee Technical College is a drug-free campus. The staff at Chattahoochee Technical College is concerned about the growing pattern of drug and alcohol abuse in our society today. Chattahoochee Technical College is doing its part to curb this usage and to educate our staff and students about the associated dangers. Chattahoochee Technical College will comply with all pertinent laws and regulations and is eager to join other educational facilities in this national effort to combat drug abuse. National and state certifications of intent to comply with these laws in order to continue to receive funds for financial assistance have been submitted.

The Federal *Drug Free Schools and Communities Act* of 1990 contains Section 20, Drug Free Schools and Campuses, which was enacted to ensure that any institution of higher education that received funds under any federal program has adopted and implemented a program to prevent the use of illicit drugs and abuse of alcohol by students.

No student may engage in the unlawful manufacture, possession, use or distribution of illicit drugs and alcohol on the Technical College's property or as part of any of its sponsored activities.

Such unlawful activity may be considered sufficient grounds for serious punitive action,

including expulsion. Disciplinary sanctions for students convicted of a felony offense involving alcohol or the manufacture, distribution, sale, possession or use of marijuana, controlled substances or other illegal or dangerous drugs shall be immediate suspension and denial of further state and/or federal funds from the date of conviction. Specifically in the case of a drug related offense the student shall minimally be suspended for the remainder of the quarter and forfeit all academic credit for that period.

The Technical College shall notify the appropriate state/federal funding agency within 10 days after receiving notice of the conviction from the student or otherwise after receiving the actual notice of conviction.

Within 30 days of notification of conviction, the Technical College shall with respect to any student so convicted:

1. Take additional appropriate action against such student up to and including expulsion as it deems necessary.
2. Provide such student with a description of any drug or alcohol counseling treatment, or rehabilitation or re-entry programs that are available for such purposes by a federal, state or local health, law enforcement or other appropriate agency.

The Technical College is responsible for ensuring the development and implementation of a drug free awareness program to inform students of the following:

1. The dangers of drug and alcohol abuse on the campus and elsewhere.
2. Any available drug and alcohol counseling, rehabilitation and assistance programs.
3. Any penalties to be imposed upon students for drug and alcohol abuse violations occurring on the campus.

## **Student Administrative Withdrawals/ Written Complaints Procedures**

### **Student Administrative Withdrawals**

A student may be administratively withdrawn from the institution when, in the judgment of the Vice President of Student Affairs, the Vice President of Academic Affairs, and the personal physician (if any) determines that the student suffers from a physical, mental, emotional, or psychological health condition which: (1) poses a significant danger or threat of physical harm to the student or to the person or property of others, (2) causes the student to interfere with the rights of other members of the school or with the exercise of any proper activities or functions of the school or its personnel, or (3) causes the student to be unable to meet institutional requirements for admission and continued enrollment.

## **Student Written Complaints Procedures**

Hopefully, most complaints/disputes/issues can be resolved through open and frank discussion between the individuals involved. Staff members should make every effort to resolve situations with students. When that is not the case, student written complaints should be directed to the Office of Vice President of Student Affairs. The written complaint should be specific, listing the nature of the complaint, along with any possible solution. The Vice President of Student Affairs or designee will review the concern or complaint and direct it to the appropriate office for further review and resolution. A routing form will be utilized to direct complaints/issues to the appropriate office. Complaints will be addressed and processed in the following ways:

1. Issues with the potential to become very serious matters should be discussed with the appropriate Vice President.
2. Complaints involving instructional concerns will be directed to the appropriate division chair and/or Dean over the academic area.
3. Complaints involving fees, requests for refunds, and course placements will be handled by the Vice President of Student Affairs in conjunction with the Vice President of Finance, when necessary.
4. Financial aid issues will be directed to the Executive Director of Financial Services.
5. Facilities, maintenance, security, and parking concerns will be directed to the Vice President of Finance.
6. Continuing education and /or economic development classes concerns will be directed to the Vice President of Economic Development.

Administrative/staff members may seek assistance and /or consultation from other CTC personnel in resolution and response to these items. The staff member should contact the student(s) via telephone, direct contact, or e-mail to start the negotiation and resolution process.

After review and resolution, the appropriate office will respond to the student(s) within a reasonable time from receipt of the written complaint. The response may include what action was taken, future steps to be taken, further referral, and/or final disposition of the matter. This will be done, if necessary, in writing. The appropriate office may keep any necessary documents on file deemed necessary.

The responding office will complete the routing form, along with any necessary documentation, action and response, and return to the Office of Vice President of Student Affairs. These documents will then be maintained on file.

These procedures do not override any procedures for addressing written complaints concerning academic grievances, grade appeals, discrimination, or the Americans with Disabilities Act (ADA) that may be listed in the college catalog or other official publications.

## **Visitors**

Chattahoochee Technical College welcomes visitors. Individuals or groups (high school classes, clubs,

and organizations) wishing to visit a campus may call 770-528-4545 to make an appointment. Times and dates will be arranged to accommodate your needs. All visitors should report to the reception area upon arrival to the campus.

For the safety of the school, faculty, staff, and students, security personnel may remove unauthorized visitors who disrupt the operation of the school. These violators may have appropriate charges filed against them as deemed necessary by the President of Chattahoochee Technical College or an official designee.

### **Children on Campus**

Children will not be allowed on any of the school's campuses for any extended period of time unless they are involved in an organized special program for children, i.e., Child Care program at the Paulding Campus or a future summer camps for children. In the event that children are found in class or wandering on any campus, faculty and/or staff should ask the accompanying student to immediately leave campus with the child. Security personnel will also be asked to assist in these matters.

The state liability carrier for Chattahoochee Technical College prohibits children of students in any work or instructional areas under any circumstances.

### **Ombudsperson**

The Office of the Ombudsperson promotes fairness and equity for each individual at the college by fostering proactive education for the resolution of students, faculty and administrations' academic, professional and personal concerns as a confidential and neutral resource.

Services provided by this office supplement, but do not replace, formal procedures. Use of the ombudsperson is voluntary, and is not a required step in any college grievance or other procedure. The Ombudsperson provides information, receives informal academic complaints, facilitates communication, and aids in resolving conflicts.

#### **Contact the Ombudsperson:**

Dr. Betty Ann Cook  
Chattahoochee Technical College  
South Cobb Campus  
1578 Veterans Memorial Parkway  
Austell, Georgia 30168

Phone: 770.732.5922

Email: [bcCook@ChattahoocheeTech.edu](mailto:bcCook@ChattahoocheeTech.edu)

Note: Appointments will be made to accommodate student, faculty and staff confidentiality

## ACADEMICS

### **Purpose**

The division of Academic Affairs is committed to providing a teaching/learning environment that supports and maintains academic excellence for a diverse student population. Academic programs are designed and implemented to meet the educational needs of the students and to prepare them for the workforce.

### **Change of Program/Major**

Students who wish to change their program of study should complete a **Program Change Form** and submit it to the Office of the Registrar by the posted deadline for the upcoming quarter. The request will be considered with respect to meeting the admission requirements, necessary qualifications for the program, and the availability of space in that program. Requests received by the posted deadline will be effective for the upcoming quarter.

### **Elective Courses**

Associate of Applied Science (AAS) degree program elective courses may be inside or outside the program of study, based on the list provided in the program area. Diploma/certificate level general education core courses cannot be used as electives in degree programs, unless allowed by the specific program.

### **Multiple Programs of Study/Majors**

A student may be enrolled in only one program of study at a time.

### **Attendance**

It is the student's responsibility to attend classes on a good faith basis that demonstrates the student's desire to be a genuine partner in the educational process. Instructors will keep an accurate record of attendance. Students anticipating an absence of tardiness should contact the instructor in advance or provide notification as soon as possible. Instructors may establish attendance and make-up policies which are provided to the student through the course syllabus. It is the responsibility of the student to know the policy and adhere to it. Final grades may be affected by excessive absence and tardiness.

### **No Show Policy**

A "no show" is a student whose name appears on the class roster but fails to attend class the first time after his/her name appears on the roll. Any student reported as a "no show" by an instructor will be administratively withdrawn from the class.

No shows shall receive a 100% refund of applicable tuition (hours below 15-hour tuition cap) and applicable refundable fees, excluding the application fee.

Any student receiving financial aid who is reported as a "no show" will have his/her financial aid award for that class cancelled. All financial aid awards based on courses that students do not attend will be cancelled, and the student will be responsible for any applicable charges.

### **Stopped Attending Policy**

After a student has registered for and attended a class at least one time, he/she is responsible for attending class on a regular basis. Faculty are required to submit the names of students who stop attending. The definition of “stopped attending” is a student who registers for a class, attends it at least one time, and then meets the following criteria:

- Misses two consecutive weeks of a class that meets once weekly;
- Misses four consecutive days of a class that meets twice per week;
- Misses four consecutive days of a class that meets daily;
- Does not log on to an on-line class for a period of one week.

It is the student’s responsibility to contact the instructor if he/she is to be absent from class. It is the instructor’s decision as to whether to allow the student to return to class or to submit the student as a “stopped attending.”

Students submitted as “stopped attending” may not be eligible to be reinstated in the course; they may receive a grade of F for the course, unless he/she withdraws from the class following the established withdrawal procedures and within the established withdrawal dates for that quarter.

### **Withdrawal Policy**

Through the end of the eighth week of the quarter, a student may withdraw from any or all courses from his/her schedule. It is the student’s responsibility to obtain the **Withdrawal Form** from the Student Affairs office on any campus, fill out all necessary sections, have it signed and dated by the instructor or Academic Dean (instructor must provide last date of attendance, and submit the form back to the office where it was obtained. Beginning with the fourth day of the quarter and extending through the end of the fifth week, students who withdraw will receive a grade of “W”. Students who withdraw during the sixth, seventh or eighth weeks of the quarter will receive a grade of “WP” or “WF”, depending on performance in the course at that time. No student may withdraw from a course after the end of the eighth week of the quarter. Established deadlines are posted for each quarter and must be met. Grades of “W” or “WP” do not affect the grade point average (GPA); grades of “WF” are treated as “F” grades in the GPA. All withdrawals negatively affect the student’s Satisfactory Academic Progress (SAP) and may affect the student’s financial aid status.

### **Grade Appeal Policy**

A student has the right to appeal when he/she believes a final course grade assigned by the instructor does not reflect what the student has earned according to the criteria for grading as outlined by the instructor in the course syllabus. Grade appeals **MUST** be initiated no later than the end of the third week of classes of the first quarter the grade was issued.

### **Grade Appeal Procedures**

The stages of the appeal process are as follows:

1. Appeal to the instructor

After the assignment of the grade, the student must communicate with the instructor seeking a solution to the concerns regarding the grade.

2. Appeal to the Division Chair



If the concerns are not resolved to the student's satisfaction, and if the student continues to believe the grade does not reflect his/her performance in the course as outlined by the instructor in the course syllabus, the student may submit a written statement to the division chair who supervises the discipline of the course ***no later than the end of the third week of classes of the first quarter following the quarter the grade was issued.*** The written statement must outline the student's concerns with the issued grade. The chair will research the situation and issue a written response to the student within ten working days of receiving the written statement of appeal.

### 3. Appeal to the Dean

If the concerns are not resolved to the student's satisfaction, and if the student continues to believe the grade does not reflect his/her performance in the course as outlined by the instructor in the course syllabus, the student may submit a written statement to the Dean who supervises the discipline of the course ***no later than the end of the sixth week of classes of the first quarter following the quarter the grade was issued.*** The written statement must outline the student's concerns with the issued grade. The Dean will convene an Ad Hoc Appeal Committee consisting of three deans, division chairs, and/or faculty and a student assigned by a Student Government Association officer. A date will be scheduled for the student and the instructor to meet with the Ad Hoc Committee. The committee will begin with the presumption that the grade is correct as assigned. The function of the committee is to evaluate the grading procedures, as well as, if necessary, re-evaluate the student's assignments for the course in terms of criteria established by the instructor of the course. The committee's decision may be to keep the assigned grade, raise the grade, or lower the grade. The Dean will report in writing to the student the committee's decision within ten working days of the committee meeting. If the decision is to change the grade, and the instructor refuses to change it, the Dean will process the grade change using the college's established grade change process. The decision of the committee is final unto all parties of the grievance.

**NOTE:** Students in "lock step" programs may continue the next course in the sequence at their own risk. If a failing grade is not changed, the student must withdraw from the next sequenced class at the time of receiving the committee's ruling. No tuition or fee refunds will be given.

## **Academic Integrity**

Chattahoochee Technical College expects students, faculty, and staff to conduct themselves with honesty and academic integrity. The college promotes and expects all members of the college community to conduct themselves professionally and with intellectual integrity. The college considers academic integrity an integral part of the learning environment. Any infraction of this policy is detrimental to the students' education and the integrity of the college. Cases of academic dishonesty that are strictly forbidden include:

- Plagiarizing any assignment or part of an assignment. Plagiarizing means to use someone else's ideas or words as one's own, without giving appropriate credit using quotation marks if necessary, and citing the source(s).
- Copying and submitting another's work as one's own.
- Using unauthorized notes or equipment (programmable calculator, pda, cell phone, etc.) during an examination.
- Stealing an examination or using a stolen examination for any purpose.

- Allowing another student to have access to your work, thereby enabling that student to represent the work as his/her own.
- Having someone else take a quiz or exam in one's place, taking an exam for someone else, or assisting someone in any way during a quiz or exam, or using any unauthorized electronic device or other unauthorized method of support during a quiz or exam.
- Falsifying or fabricating information, such as data for a lab report.
- Falsifying a patient's medical record or a student's clinical record, or any other student record, including a record of attendance.
- Using another person's file or copying another student's computer program.
- Other forms of cheating or dishonesty are forbidden, even if not listed here specifically.

Instructors may use any one or more of the following disciplinary measures for addressing instances of dishonesty:

- Award a grade of zero for the assignment;
- Assign a failing grade for the course;
- Recommend the dismissal of the student from the program, or college.

### **Academic Freedom**

The Department Technical College System of Georgia (TCSG) supports the concept of academic freedom. In the development of knowledge, research endeavors, and creative activities, faculty and students must be free to cultivate a spirit of inquiry and scholarly criticism. Faculty members are entitled to freedom in the classroom in discussing their subject. Although caution must be used not to introduce teaching matters that have no relation to the instructional field, faculty and students must be able to examine ideas in an atmosphere of freedom and confidence and should feel free to participate as responsible citizens in community affairs.

The Technical College System of Georgia and its institutions safeguard and protect these rights of academic freedom by providing faculty and students the right to initiate grievance procedures should they have complaints dealing with the infringement of or personal penalization as the result of the exercise of this freedom.

The principles of academic freedom shall not prevent the institution from making proper efforts to ensure the best possible instruction for all students in accordance with the objectives of the institution.

### **Associate Degrees**

The Associate of Applied Science (AAS) degrees conform to statewide standards developed by the Technical College System of Georgia. These programs are terminal degree programs designed to prepare students for employment. The AAS degrees are organized into two sections: general core courses and occupational courses. A range of 90-110 quarter credit hours is required for graduation; some programs may exceed 110 credit hours to meet professional credentialing or licensure or by official exception of the State Board of the Technical College System of Georgia.

### **Diplomas**

Diploma programs conform to statewide standards developed by the Technical College System of Georgia. Diploma programs are comprised of general core courses and occupational courses, with a range of 60-90 quarter credit hours required for graduation; some programs may exceed 90 credit hours

to meet professional credentialing or licensure or by official exception of the State Board of the Technical College System of Georgia.

### **Technical Certificates of Credit**

A Technical Certificate of Credit (TCC) is designed to meet a specific educational need to prepare students or to update their skills for the workforce. A TCC has a range of 15-59 credit hours required for completion. Some TCC's may be embedded in the coursework for the degree or diploma.

### **Grading System**

Grades are issued at the end of each quarter. All grades earned will be reflected on and remain on the official academic transcript. The following grading scale is used:

A	90-100	Excellent	4.0
B	80-89	Good	3.0
C	70-79	Satisfactory	2.0
D	60-69	Poor	1.0
F	0-59	Failing	0.0

An asterisk (\*) located next to any of the above letter grades denotes a Learning Support course grade.

*NOTE: Some programs may require an altered grading scale as described in the instructor's syllabus.*

**I** Incomplete—assigned by an instructor to a student who has completed 85% of the coursework by the end of the grading period, and is issued at the discretion of the instructor. The "I" grade automatically becomes a grade of "F" if the student does not satisfactorily complete the coursework and the record does not reflect a new grade by the end of the 4th week of the following quarter. If a grade of "I" is received in any course that is a prerequisite to other courses, the student must complete the required prerequisite and receive a satisfactory final grade to be eligible to enroll in the next level course. The student may not register for the same class until the "I" grade is resolved. The college calendar notes established quarterly deadlines.

**W** Withdrawal—assigned to a student who voluntarily withdraws from a course through the 5<sup>th</sup> week of the quarter. The college calendar notes established quarterly deadlines.

**WP** Withdrawal Passing—assigned to the student who voluntarily withdraws from the course after the 5<sup>th</sup> week and by the end of the 8<sup>th</sup> week of the quarter and who is passing the course at the time of the withdrawal. After the 8<sup>th</sup> week of the quarter, a student may not withdraw and will receive the earned letter grade. The college calendar notes established quarterly deadlines.

**WF** Withdrawal Failing—assigned to the student who voluntarily withdraws from the course after the 5<sup>th</sup> week and by the end of the 8<sup>th</sup> week of the quarter and who is failing the course at the time of the withdrawal. The "WF" is calculated as an F grade in the grade point average. After the 8<sup>th</sup> week of the quarter, a student may not withdraw and will receive the earned letter grade. The college calendar notes established quarterly deadlines.

**TR** Transfer Credit—assigned when courses with a grade of "C" or better are accepted as college credit from another regionally accredited postsecondary institution or any Technical College System of Georgia college.

**AC** Articulated Credit—assigned when coursework is accepted as college credit from an accredited Georgia high school.

**AU** Audit—assigned when a student audits a course rather than taking it for college credit.

**IP** In Progress—indicated on transcript when a course is in progress and the final grades have not yet been assigned.

**EX** Exempt—assigned when a student takes and passes a course exemption examination.

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

A student's quarterly GPA is computed by dividing the number of credit hours in the courses attempted for the quarter (in which a grade of A, B, C, D, F, or WF was received) into the number of quality points earned on those hours scheduled for the quarter. Neither transfer, articulated, nor exemption credit are calculated in the GPA. Work ethics grades are not used in calculating GPA. The method explained below can be used to figure GPA for one term or to calculate a cumulative or overall GPA.

Assume, for example, that a student received the following grades for the fall term:

3 hour English course – C  
3 hour computer course – B  
5 hour math course – B  
3 hour business course – A

To figure the GPA for this term, first multiply the number of credit hours for each course times the numerical value of the grade (A=4, B=3, C=2, D=1). This will give the *quality points* for each course. (For example, to determine the quality points for English, multiply 3 X 2.) Then divide the total number of credit hours (14) into the total number of quality points (42). This results in a GPA of (3.00).

No. of Credit Hours		Numerical Grade Value	Quality Points
3	X	2	6 (English)
3	X	3	9 (Computer)
5	X	3	15 (Math)
<u>3</u>	X	4	<u>12</u> (Business)
<b>Totals 14</b>			<b>42</b>

$$42 \div 14 = 3.0 \text{ Grade Point Average (GPA)}$$

### **Grade Requirements**

Specified courses in degree, diploma, and certificate programs of study require a grade of C or higher. These courses may be prerequisites for more advanced courses.

### **Work Ethics Grades**

This grade is assigned in accordance with the Technical College System of Georgia standards. The work ethics grade will be displayed on the student's official transcript but will not affect the academic grade point average. It is designed to evaluate and encourage good work habits. Grades of 3, 2, 1, or 0 are issued.

3	Exceeds Expectations
2	Meets Expectations
1	Needs improvement
0	Unacceptable

### **Graduation**

To be eligible to graduate with a certificate, diploma or degree from Chattahoochee Technical College, a student must satisfactorily complete the program of study in which he/she is enrolled with a cumulative grade point average of 2.0. All students must have completed a high school diploma or GED certificate before graduating from Chattahoochee Technical College.

A student's academic record will be evaluated by the Registrar for any and all credentials earned to determine if graduation requirements have been met. If a student's enrollment has not been continuous since initial matriculation to the college, his/her record will be evaluated for graduation based on the catalog in effect at the time of readmission.

The student must submit a petition to graduate, signed by both the student and his/her academic advisor, to the Registrar by the end of the quarter *prior* to the quarter he/she plans to graduate. The College calendar posts dates for graduation.

### **Final Course Grades**

Final grades will be determined and submitted by instructors to the Registrar via Banner Web. Once all grades have been received, the Registrar will make grades available to the students through the Banner Web accounts.

### **Academic Good Standing**

Students are considered to be in academic good standing if they maintain a quarterly grade point average of 2.0 or higher.

### **Academic Warning**

The first time a student earns a quarterly grade point average of less than 2.0, he/she will be placed on academic warning. To be removed from academic warning, a student must earn a quarterly grade point average of 2.0 or higher during the next quarter of attendance. A student who does not achieve a quarterly grade point average of 2.0 or higher while on academic warning will be placed on academic probation.

### **Academic Probation**

A student previously placed on academic warning who earns a quarterly grade point average of less than 2.0 will be placed on academic probation. A student on academic probation may enroll for one quarter while on probation. At the end of the quarter, the students must have attained a 2.0 quarterly grade point average and a 2.0 cumulative grade point average in order to be removed from probation. A

student who does not achieve a quarterly grade point average of 2.0 or higher and cumulative grade point average of 2.0 or higher while on academic probation will be placed on academic suspension.

### **Academic Suspension**

A student who earns a quarterly grade point average of less than 2.0 while on academic probation will be placed on academic suspension. The student may not enroll at the college for a minimum of one quarter. To return, the student must petition to be readmitted by completing the following steps:

#### **First Academic Suspension**

The student will be required to sit out for one quarter. To gain reentry to the college, he/she must complete an **Academic Suspension Appeal** and a **Re-Admit Form**. It is recommended that the student register for and complete COL 101 (College Success course) during his first quarter back.

#### **Second Academic Suspension**

The student will not be allowed to readmit until he/she has been out for at least two quarters. He/she must complete a **Re-Admit Form**. After being out for at least two quarters, the student is **required** to enroll in COL 101 (College Success course) and earn a grade of "B" or better before being allowed to reenter the college.

During the first quarter of enrollment after an academic suspension, the student is required to earn a grade point average of 2.0 to be removed from academic probation.

#### **Third Academic Suspension**

A student who has been academically suspended from the college for a third time will be dismissed from the college with the right to appeal to the Vice President of Academic Affairs for an exception. The appeal must come in the form of a letter addressed to the VPAA.

### **Full-time Enrollment Status**

A student is considered to have a full-time course load if he/she is taking 12 or more credit hours. A student may not register for more than 21 credit hours during a quarter.

### **Drop/Add Period**

Courses may be dropped and added through the third scheduled class day of the quarter. Courses dropped during the drop/add period will not appear on the student's official academic transcript. Courses dropped during the drop/add period are eligible for 100% tuition reimbursement. Schedules created during add/drop are subject to a late fee.

### **Academic Resources**

#### **Learning Support Courses**

Students whose test scores or transcripts indicate a lack of academic preparation for a program of study are enrolled in Learning Support (LS) courses. Learning Support courses carry institutional credit but do not apply toward graduation or a student's grade point average. These courses are numbered 0096-0099. Emphasis is placed on improvement of writing skills, understanding and performance in reading, numerical skills, beginning and elementary algebra. Students required to take Learning Support courses must register for at least one required LS course each quarter until all required courses are completed. A student who withdraws from a LS course must withdraw from his/her entire schedule of courses, unless approved by an Academic Dean.

## **Library/Information Resource Services**

The purpose of the Chattahoochee Technical College Library is to provide information resources and library services to meet the institutional mission of preparing students to enter the workforce. Library staff provide materials to assist students in pursuing their educational, career, and personal goals. The library is committed to the support of academic programs for the broad range of students in the technical college.

Libraries are located on all campuses. The library provides information, guidance, and instruction to all faculty, staff, and students for a wide range of resource materials. Automated catalogs, circulation, electronic indexes, e-books, and reference services offer the user state-of-the-art access to research and recreational materials. Information on student access to online resources can be found at [www.ChattahoocheeTech.edu/library](http://www.ChattahoocheeTech.edu/library).

The library is a member of the *Georgia Online Database (GOLD)* and *Lyrasis* (formerly the *Southeastern LibraryInformation Network* or *SOLINET*). GOLD and Lyrasis provide access to materials in libraries throughout Georgia and the southeast for inter-library loans. The library also maintains cooperative agreements with Kennesaw State University, Southern Polytechnic State University, and all other Technical College System of Georgia (TCSG) libraries. These agreements allow Chattahoochee Technical College faculty and students to borrow materials from these campus libraries upon presentation of a current Chattahoochee Technical College photo ID.

## **Open Computer Labs**

Computers for general use by students are provided on all campuses either in a separate lab or in conjunction with the library. Students will need a current student ID card to use the labs.

## **Tutoring Centers**

Tutoring Centers are available at most campuses. Tutoring is available in English, math and reading, and may be arranged for other subjects depending upon availability of tutors. Schedules are posted by campus. The College provides an on-line learning center where all students may access tutorials and many other resources to help them with their learning.

## **Service Learning**

Service Learning combines classroom instruction with community service, focusing on critical, reflective thinking, as well as, personal and civic responsibility. Service Learning is almost always integrated into a regular academic course that requires attending regular class meetings and demonstrating an understanding of course concepts by showing how the service learning experience relates to course content through classroom discussion, reflection journals, papers and/or examinations.

## **Hardship Withdrawal**

Students have the right to appeal an administrative withdrawal with the Vice President for Academic Affairs. Dismissal of an administrative withdrawal is limited to certain criteria which includes, but is not limited to, hospitalization of the student, death in the immediate family, military duty, or being seated upon a jury for more than three days. The appeal must be made in writing with verifying documentation and in a timely manner.

## PROGRAMS OF STUDY

### ACCOUNTING

#### **ACCOUNTING**

**AC03**

#### **Associate of Applied Science Degree**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Accounting Associate of Applied Science degree program is a sequence of courses that prepares students for careers in the accounting profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention and advancement. Areas covered in this program include maintaining a set of books for business entities, account classifications, subsidiary record accounting, corporate accounting, cost accounting, payroll, computerized accounting, database and spreadsheet fundamentals, tax preparation, and word processing. The program emphasizes a combination of accounting theory and practical application necessary for successful employment using both manual and computerized accounting systems. Program graduates receive an Accounting Associate of Applied Science Degree.

Program Length: A full-time student who does not need preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Accounting in eight quarters.

#### Curriculum

#### Credits

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<u>Or</u>			
HUM	1101(HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
<u>Or</u>			
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	5
XXX	xxx	Chosen from General Studies AAS-level courses (ECO 191 or SOC 1101 only)	5



### Area III – Natural Sciences/Mathematics

MAT	1101 (MAT 190)	Mathematical Modeling	
		<u>Or</u>	
MAT	1111(MAT 191)	College Algebra	
		<u>Or</u>	
MAT	1100 (MAT 196)	Quantitative Skills and Reasoning	5

### Occupational Courses

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1103 (ACC 103)	Principles of Accounting III	6
ACC	1104 (ACC 104)	Computerized Accounting	3
ACC	1106 (ACC 106)	Spreadsheet Applications	3
ACC	1151 (ACC 151)	Individual Tax Accounting	5
ACC	1152 (ACC 152)	Payroll Accounting	5
BUS	1130 (BUS 101)	Document Processing	6
SCT	100	Introduction to Microcomputers	3
ACC	xxx	Accounting Electives	10
XXX	xxx	*Advisor approved Occupational Elective Courses	15

### \*Occupational Elective Courses:

ACC	2154 (ACC 154)	Personal Finance	5
ACC	2156 (ACC 156)	Business Tax Accounting	5
ACC	2159 (ACC 159)	Accounting Simulation	5
ACC	2160 (ACC 160)	Advanced Spreadsheet	5
ACC	2164 (ACC 164)	Bookkeeper Certification Review	6
ACC	2165 (ACC 165)	Capstone Review Course of Accounting Principles	6
ACC	2167 (ACC 107)	Accounting Internship I	6
ACC	2168 (ACC 108)	Accounting Internship II	12
ACC	2207 (ACC 207)	Principles of Fraud Examination	5
BUS	1100 (BUS 100)	Introduction to Keyboarding	3
BUS	1140 (BUS 108)	Word Processing	5
BUS	1150 (BUS 105)	Database Applications	3
BUS	1300 (BUS 151)	Introduction to Business	5
FIN	191	Introduction to Finance	5
MKT	100	Introduction to Marketing	5
MKT	101	Principles of Management	5
MKT	103	Business Law	5
MKT	110	Entrepreneurship	8
MSD	100	Principles of Management	5

MSD 101	Organizational Behavior	5
MSD 102	Employment Law	5
MSD 103	Leadership	5
MSD 104	Human Resource Management	5
MSD 112	Introduction to Business and Economics	5
MSD 113	Business Ethics	5

\*Program Advisor may recommend other approved specialization-related courses.

<b>Total Hours Required for Degree</b>	<b>98</b>
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## ACCOUNTING Diploma

AC02

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Accounting program is a sequence of courses designed to prepare students for careers in the accounting profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of accounting theory and practical application necessary for successful employment using both manual and computerized accounting systems. Program graduates receive an Accounting diploma.

Program Length: A full-time student does not need preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Accounting Diploma in six quarters.

### Curriculum

### Credits

#### General Core Courses

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### Occupational Courses

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1103 (ACC 103)	Principles of Accounting III	6
ACC	1104 (ACC 104)	Computerized Accounting	3
ACC	1106 (ACC 106)	Spreadsheet Applications	3
ACC	1151 (ACC 151)	Individual Tax Accounting	5
ACC	1152 (ACC 152)	Payroll Accounting	5
BUS	1130 (BUS 101)	Document Processing	6
SCT	100	Introduction to Microcomputers	3
XXX	xxx	*Advisor approved specific Occupational-Guided Electives	10

#### \*Occupational Elective Courses:

ACC	2154 (ACC 154)	Personal Finance	5
ACC	2156 (ACC 156)	Business Tax Accounting	5
ACC	2159 (ACC 159)	Accounting Simulation	5

ACC	2160 (ACC 160)	Advanced Spreadsheet	5
ACC	2164 (ACC 164)	Bookkeeper Certification Review	6
ACC	2165 (ACC 165)	Capstone Review Course of Accounting Principles	6
ACC	2167 (ACC 107)	Accounting Internship I	6
ACC	2168 (ACC 108)	Accounting Internship II	12
ACC	2207 (ACC 207)	Principles of Fraud Examination	5
BUS	1100 (BUS 100)	Introduction to Keyboarding	3
BUS	1140 (BUS 108)	Word Processing	5
BUS	1150 (BUS 105)	Database Applications	3
BUS	1300 (BUS 151)	Introduction to Business	5
MKT	100	Introduction to Marketing	5
MKT	101	Principles of Management	5
MKT	103	Business Law	5
MKT	110	Entrepreneurship	8
MSD	100	Principles of Management	5
MSD	101	Organizational Behavior	5
MSD	102	Employment Law	5
MSD	103	Leadership	5
MSD	104	Human Resource Management	5
MSD	112	Introduction to Business and Economics	5
MSD	113	Business Ethics	5

\*Program Advisor may recommend other approved specialization-related courses.

<b>Total Hours Required for Diploma</b>	<b>71</b>
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**COMPUTERIZED ACCOUNTING SPECIALIST  
Certificate**

**5AQ1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Computerized Accounting Specialist Technical Certificate of Credit provides students with basic skills in computerized accounting. Topics include: principles of accounting, computerized accounting, spreadsheet fundamentals and basic computers.

**Curriculum**

**Credits**

**General Core Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1104 (ACC 104)	Computerized Accounting	3
ACC	1106 (ACC 106)	Spreadsheet Applications	3
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Occupational Elective	5

**Total Hours Required for TCC** **26**

**OFFICE ACCOUNTING SPECIALIST  
Certificate**

**5AY1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Office Accounting Specialist Technical Certificate of Credit provides entry-level office accounting skills. Topics include: principles of accounting, computerized accounting and basic computer skills.

**Curriculum**

**Credits**

**General Core Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1104 (ACC 104)	Computerized Accounting	3
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for TCC</b>			<b>18</b>

**PAYROLL ACCOUNTING SPECIALIST  
Certificate**

**5AP1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Payroll Accounting Specialist Technical Certificate of Credit provides entry-level skills into payroll accounting. Topics include: principles of accounting, computerized accounting, principles of payroll accounting, mathematics, and basic computer use.

**Curriculum**

**Credits**

**General Core Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1104 (ACC 104)	Computerized Accounting	3
ACC	1152 (ACC 152)	Payroll Accounting	5
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for TCC</b>			<b>23</b>

**TAX PREPARATION SPECIALIST  
Certificate**

**5AR1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Tax Preparation Specialist Technical Certificate of Credit is designed to provide entry-level skills for tax preparers. Topics include: principles of accounting, tax accounting, business calculators, mathematics, and basic computer skills.

**Curriculum**

**Credits**

**General Core Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1151 (ACC 151)	Individual Tax Accounting	5
ACC	2156 (ACC 156)	Business Tax Accounting	5
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Occupational Elective	3
<b>Total Hours Required for TCC</b>			<b>22</b>



## **AIR CONDITIONING TECHNOLOGY**

### **AIR CONDITIONING TECHNOLOGY Diploma**

**AI02**

Availability: Marietta Campus

Program Purpose: The Air Conditioning Technology program is a sequence of courses that prepare students for careers in the air conditioning industry. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment. Program graduates receive an Air Conditioning Technology diploma.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Air Conditioning Technology Diploma in five quarters.

Additional Requirements: Students are required to meet with their Program Advisor prior to their program start.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

IFC	100	Industrial Safety Procedures	2
ACT	100	Refrigeration Fundamentals	4
ACT	101	Principles and Practices of Refrigeration	7
ACT	102	Refrigeration Systems Components	7
ACT	103	Electrical Fundamentals	7
ACT	104	Electric Motors	4
ACT	105	Electrical Components	5
ACT	106	Electric Control Systems and Installation	4
ACT	107	Air Conditioning Principles	8
ACT	108	Air Conditioning Systems and Installation	3
ACT	109	Troubleshooting Air Conditioning Systems	7
ACT	110	Gas Heating Systems	5

ACT	111	Heat Pumps and Related Systems	6
		*(all ACT courses must be taken in consecutive order)	
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>85</b>

**AIR CONDITIONING ELECTRICAL TECHNICIAN  
Certificate**

**AIR1**

Availability: Marietta Campus

Program Purpose: The Air Conditioning Electrical Technician Certificate will prepare students in the air conditioning area of study to acquire competencies in electricity related to installation, service and maintenance of electrical systems.

Additional Requirements: Students are required to meet with their Program Advisor prior to their program start.

**Curriculum**

**Credits**

**General Core Courses**

ACT	103	Electrical Fundamentals	7
ACT	104	Electric Motors	4
ACT	105	Electrical Components	5
ACT	106	Electrical Control Systems & Installation	4

**Total Hours Required for TCC** **20**

**AIR CONDITIONING TECHNICIAN ASSISTANT  
Certificate**

**AX01**

Availability: Marietta Campus

Program Purpose: The Air Conditioning Technician Assistant Certificate will provide the occupational foundation and basic training needed for the air conditioning program. The program will enable graduates to become employees as an entry-level air conditioning technician assistant.

Additional Requirements: Students are required to meet with their Program Advisor prior to their program start.

**Curriculum**

**Credits**

**General Core Courses**

ACT	100	Refrigeration Fundamentals	4
ACT	101	Principles/Practices of Refrigeration	7
ACT	102	Refrigeration Systems Components	7

**Total Hours Required for TCC** **18**

## **AUTOMOTIVE COLLISION REPAIR**

### **AUTOMOTIVE COLLISION REPAIR Diploma**

**AU02**

Availability: Appalachian Campus

Program Purpose: Automotive Collision Repair students have both classroom and hands-on experiences with damaged cars and trucks. Training includes techniques for straightening, repairing, replacing, and refinishing damaged vehicles. This course also includes glass and trim work related to the repair and replacement of sheet metal components along with spot and overall refinishing of the automobile. Appalachian Technical College provides fully equipped body repair and painting facilities.

Program Length: A full-time student who needs no preparatory coursework in English, math or reading and maintains satisfactory progress can complete the Automotive Collision Repair Diploma in six quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

EMP	1000 (EMP 100)	Interpersonal Relations and Prof. Development	3
ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
SCT	100	Introduction to Microcomputers	3

#### **Occupational Courses**

ACR	100	Safety	1
ACR	101	Automobile Components Identification	3
ACR	102	Equipment and Hand Tools Identification	1
ACR	104	Mechanical and Electrical Systems	2
ACR	105	Body Fiberglass, Plastic, and Rubber Repair Techniques	3
ACR	106	Welding and Cutting	4
ACR	107	Trim, Accessories, and Glass	2
ACR	109	Damage Identification and Assessment	3
ACR	110	Minor Collision Repair	2
XXX	xxx	Electives	3

**Completion of one specialization is required:**

**Major Collision Repair Specialization Courses**

ACR	120	Conventional Frame Repair	3
ACR	121	Unibody Identification and Damage Analysis	2
ACR	122	Unibody Measuring and Fixturing Systems	2
ACR	123	Unibody Straightening Systems and Techniques	4
ACR	124	Unibody Welding Techniques	2
ACR	125	Unibody Structural Panel Repair and Replacement	3
ACR	126	Conventional Body Structural Panel Repair	5
ACR	127	Unibody Suspension and Steering Systems	2
ACR	128	Bolt-on Body Panel Removal and Replacement	4
ACR	129	Major Collision Repair Internship/Practicum	3

**Paint and Refinishing Specialization Courses**

ACR	130	Sanding, Priming, and Paint Preparation	5
ACR	132	Special Refinishing Application	5
ACR	134	Urethane Enamels Refinishing Application	6
ACR	135	Tint and Match Colors	6
ACR	136	Detailing	2
ACR	137	Paint and Refinishing Internship	3

**Total Hours Required for Diploma** **67**

**AUTOMOTIVE BODY REPAIR ASSISTANT  
Certificate**

**5DV1**

Availability: Appalachian Campus

Program Purpose: The Automotive Body Repair Assistant certificate program prepares students for employment as assistants to technicians in an automotive collision repair shop. Training is provided in minor collision repair, mechanical and electrical systems, body fiberglass plastics, and rubber repair techniques. Students will also learn the proper techniques for bolt-on body panel removal and replacement, sanding, priming and paint preparation.

**Curriculum**

**Credits**

**General Core Courses**

ACR	100	Safety	1
ACR	101	Automobile Components Identification	3
ACR	102	Equipment and Hand Tools Identification	1
ACR	104	Mechanical and Electrical Systems	2
ACR	105	Body Fiberglass Plastics and Rubber Repair Technique	3
ACR	106	Welding and Cutting	4
ACR	107	Trim, Accessories, and Glass	2
ACR	110	Minor Collision Repair	2
ACR	128	Bolt-on Body Panel Removal and Replacement	4
ACR	130	Sanding, Priming and Paint Preparation	5

**Total Hours Required for TCC** **27**

**AUTOMOTIVE PAINT AND REFINISHING SPECIALIST  
Certificate**

**5DX1**

Availability: Appalachian Campus

Program Purpose: This program is designed to produce graduates who are entry-level Paint and Refinishing Specialists. The program includes: sanding, priming, painting preparation, special refinishing application, urethane enamel applications, tinting and matching of colors, and detailing.

**Curriculum**

**Credits**

**General Core Courses**

ACR	100	Safety	1
ACR	130	Sanding, Priming, and Paint Preparation	5
ACR	132	Special Refinishing Application	5
ACR	134	Urethane Enamels Refinishing Applications	6
ACR	135	Tint and Match Colors	6
ACR	136	Detailing	2
<b>Total Hours Required for TCC</b>			<b>25</b>



## **AUTOMOTIVE TECHNOLOGY**

### **AUTOMOTIVE TECHNOLOGY Associate of Applied Science Degree**

**UTA3**

Availability: Marietta Campus

Program Purpose: The Automotive Technology associate of applied science degree program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment. Program graduates receive an Automotive Technology Associate of Applied Science degree, which qualifies them as entry-level automotive technicians.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Automotive Technology in seven quarters.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
		<b><u>Or</u></b>	
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
		<b><u>Or</u></b>	
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	
		<b><u>Or</u></b>	
ECO	1101 (ECO 191)	Principles of Economics	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Math Modeling	5
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra	5
PHY	1110 (PHY 190)	Introductory Physics	5

### Occupational Courses

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting and Charging Systems	4
AUT	126	Engine Principles of Operation and Repair	6
AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	130	Automotive Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4
AUT	140	Electronic Engine Control Systems	7
AUT	142	Climate Control Systems	6
AUT	144	Introduction to Automatic Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Advanced Electronic Transmission Diagnosis	3
AUT	214	Advanced Electronic Controlled Brake System Diagnosis	4
AUT	216	Advanced Electronic Controlled Suspension & Steering Systems	4
AUT	218	Advanced Electronic Engine Control Systems	4
AUT	220	Automotive Technology Internship	6
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Electives	6
<b>Total Hours Required for Degree</b>			<b>126</b>

## **AUTOMOTIVE TECHNOLOGY Diploma**

**UTA4**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Automotive Technology diploma program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment. Program graduates receive an Automotive Technology diploma, which qualifies them as entry-level automotive technicians.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Automotive Technology Diploma in six quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting and Charging	4
AUT	126	Engine Principles of Operation and Repair	6
AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	130	Automotive Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4
AUT	140	Electronic Engine Control Systems	7
AUT	142	Climate Control Systems	6
AUT	144	Introduction to Automatic Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Advanced Electronic Transmission Diagnosis	3
AUT	214	Advanced Electronic Controlled Brake System Diagnosis	4
AUT	216	Advanced Electronic Controlled Suspension and Steering Systems	4

AUT	218	Advanced Electronic Engine Control Systems	4
AUT	220	Automotive Technology Internship	
<b><u>Or</u></b>			
XXX	xxx	Electives	6
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>103</b>

## **AUTOMOTIVE FUNDAMENTALS Diploma**

**UT02**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Automotive Fundamentals diploma program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment. Program graduates receive an Automotive Fundamentals diploma.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Automotive Fundamentals Diploma in four quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting, and Charging	4
AUT	126	Engine Principles of Operation and Repair	6
AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	130	Automotive Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	134	Drivelines	4
AUT	140	Electronic Engine Control Systems	7
AUT	142	Climate Control Systems	6
AUT	144	Introduction to Automatic Transmissions	4
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Elective	6

**Total Hours Required for Diploma** **77**

**AUTOMOTIVE AUTOMATIC TRANSMISSION/TRANSAXLE TECHNICIAN  
Certificate**

**5CT1**

Availability: Marietta Campus

Program Purpose: The Automatic Transmission/Transaxle Technician certificate program is designed to provide students with skills to enter the automotive industry as entry-level Automotive Automatic Transmission/Transaxle Technicians. This program introduces the study of automatic transmission/transaxle theory, power flow, fundamental hydraulic circuitry, electrical circuitry, testing procedures, diagnostic techniques, in car repair, service procedures, and overhaul procedures.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	144	Introduction to Automatic Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Advanced Electronic Transmission Diagnosis	3
<b>Total Hours Required for TCC</b>			<b>23</b>

**AUTOMOTIVE BRAKE TECHNICIAN  
Certificate**

**5CU1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Automotive Brake Technician certificate program provides students with entry-level skills to enter the automotive industry as brake technicians. This program includes fundamental hydraulics, braking systems theory, operation, drum brakes, disc brakes, power assisted brakes, anti lock braking systems, brake system diagnostics, brake system repair, and brake system servicing.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	130	Automotive Brake Systems	4
AUT	214	Advanced Electronic Controlled Brake System Diagnosis	4

**Total Hours Required for TCC** **17**

**AUTOMOTIVE ELECTRICAL/ELECTRONIC SYSTEMS TECHNICIAN  
Certificate**

**5AS1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: This program provides students with the knowledge and skills necessary to diagnose, service, and repair basic electrical/electronic systems as an entry-level automotive technician. Topics include automotive batteries, starting systems, charging systems, instrumentation, lighting, and accessories.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting and Charging	4
XXX	xxx	Elective	2
<b>Total Hours Required for TCC</b>			<b>15</b>



**AUTOMOTIVE ENGINE PERFORMANCE TECHNICIAN  
Certificate**

**AEG1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Engine Performance Technician certificate program introduces students to the knowledge and skills they will need as entry-level engine performance technicians. Topics covered include theory, diagnosis, service, and repair of fuel systems, ignition systems, emission systems, and electronic engine controls.

Prerequisite: This is an advance automotive certificate which requires completion of AUT120, AUT122, AUT124, and AUT126 or a minimum of three years of industry experience along with advisor approval.

**Curriculum**

**Credits**

**General Courses**

AUT	128	Fuel, Ignition and Emission Systems	7
AUT	140	Electronic Engine Control Systems	7
AUT	218	Advanced Electronic Engine Control Systems	4
<b>Total Hours Required for TCC</b>			<b>18</b>

**AUTOMOTIVE ENGINE REPAIR TECHNICIAN  
Certificate**

**5CS1**

Availability: Marietta Campus

Program Purpose: The Automotive Engine Repair Technician certificate provides the student with entry-level skills that include basic shop safety, engine principles of operation, basic engine diagnosis, and basic engine repair. Upon satisfactory completion of this program's curriculum the student will receive an Automotive Engine Repair Technician certificate.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	126	Engine Principles of Operation & Repair	6
<b>Total Hours Required for TCC</b>			<b>15</b>

**AUTOMOTIVE HEATING AND AIR CONDITIONING TECHNICIAN  
Certificate**

**5AM1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Climate Control Technician certificate program is designed to provide students with entry-level skills to enter the automotive industry as Automotive Heating and Air Conditioning Technician Specialists. The program introduces the theory and operation of automotive heating and air conditioning systems. Students will attain proficiency in the inspecting, testing, servicing, and repairing of heating and air conditioning systems and related components. Topics include: fundamentals of heating and air conditioning; air conditioning systems; refrigeration systems; evaporator and related components; heating and engine cooling systems; control systems; troubleshooting procedures; and removal, repair, and replacement procedures. Completion of this curriculum will enable the student to receive a certificate as an Automotive Heating & Air Conditioning Technician.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	142	Climate Control Systems	6
<b>Total Hours Required for TCC</b>			<b>15</b>

**AUTOMOTIVE MANUAL DRIVETRAIN AND AXLE REPAIR TECHNICIAN  
Certificate**

**ADT1**

Availability: Marietta Campus

Program Purpose: The Manual Drive Train and Axle Repair Technician certificate program is designed to provide students with the knowledge and skills necessary to enter the automotive industry as entry-level automotive manual drive and axle repair technicians. The program includes theory, diagnosis, servicing, removal, replacement, and repair of manual transmissions, clutches, drive shafts, differentials, and axles.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4
<b>Total Hours Required for TCC</b>			<b>17</b>

**AUTOMOTIVE SUSPENSION AND STEERING TECHNICIAN  
Certificate**

**5CV1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Automotive Suspension and Steering Technician certificate program provides students with the skills needed to enter the automotive industry as suspension and steering entry-level technicians. The program presents vehicle chassis types and components; steering and suspension systems operation, design, diagnosis, service, and repair procedures; and alignment procedures and problem solving.

**Curriculum**

**Credits**

**General Core Courses**

AUT	120	Introduction to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	132	Suspension and Steering Systems	4
AUT	216	Advanced Electronic Controlled Suspension and Steering Systems	4

**Total Hours Required for TCC** **17**

## **BUSINESS ADMINISTRATIVE TECHNOLOGY**

### **BUSINESS ADMINISTRATIVE TECHNOLOGY Associate of Applied Science Degree**

**BAT3**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Business Administration Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Administrative Technology program provides learning opportunities, which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program emphasizes the use of word processing, spreadsheet, presentation, and database applications software. Students are also introduced to accounting fundamentals, electronic communications, internet research, and electronic file management. The program includes instruction in effective communication skills and technology innovations for the office. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of administrative technology. Graduates of the program receive a Business Administrative Technology Associate of Applied Science degree.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Business Administrative Technology in six quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	5

#### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	
<b><u>Or</u></b>			
MAT	1100 (MAT 196)	Quantitative Skills and Reasoning	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
BUS	1120 (BUS 148)	Business Document Proofreading and Editing	3
BUS	1130 (BUS101)	Document Processing	6
BUS	1140 (BUS 108)	Word Processing	5
BUS	1150 (BUS 105)	Database Applications	3
BUS	1170 (BUS 160)	Electronic Communication Applications	5
BUS	1240 (BUS 106)	Office Procedures	5
BUS	2110 (BUS 201)	Advanced Word Processing	5
BUS	2120 (BUS 202)	Spreadsheet Applications	3
BUS	2150 (BUS 261)	Presentation Applications	3
BUS	2210 (BUS 109)	Applied Office Procedures	5
XXX	xxxx	Specific Occupational-Guided Electives	12

**Specific Occupational-Guided Electives:**

BUS	1100 (BUS 100)	Introduction to Keyboarding	3
BUS	1160 (BUS 161)	Desktop Publishing	3
BUS	1300 (BUS 151)	Introduction to Business	5
BUS	2130 (BUS 260)	Advanced Spreadsheet Applications	3
BUS	2140 (BUS 252)	Advanced Database Applications	3
BUS	2160 (BUS 263)	Electronic Mail Applications	3
BUS	2240 (BUS 204)	Business Administrative Assistant Internship I	6
BUS	2250 (BUS 224)	Business Administrative Assistant Internship II	12
MSD	100	Principles of Management	5
MSD	113	Business Ethics	5
MSD	210	Team Project	5

\*Program Advisor may recommend other approved specialization-related courses.

**Total Hours Required for Degree** **95**

**BUSINESS ADMINISTRATIVE TECHNOLOGY**  
**Diploma**

**BAT2**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Business Administrative Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of business administration and business technology. Graduates of the program receive a Business Administrative Technology diploma with a specialty in either Business Administrative Assistant or Medical Administrative Assistant.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Business Administrative Technology Diploma in four quarters.

**Courses**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
BUS	1130 (BUS 101)	Document Processing	6
BUS	1140 (BUS 108)	Word Processing	5
SCT	100	Introduction to Microcomputers	3

**Take one of the Following Specializations:**

**Business Administrative Assistant Specialization**

BUS	1170 (BUS 160)	Electronic Communication Applications	5
BUS	1240 (BUS 106)	Office Procedures	5
BUS	2120 (BUS 202)	Spreadsheet Applications	3
BUS	2150 (BUS 261)	Presentations Applications	3
BUS	2210 (BUS 109)	Applied Office Procedures	5
BUS	1120 (BUS 148)	Business Document Proofreading and Editing	3
XXX	xxxx	Specific Occupational-Guided Electives	12



**Business Administrative Assistant Elective Courses**

BUS	1100 (BUS 100)	Introduction to Keyboarding	5
BUS	1150 (BUS 105)	Database Applications	5
BUS	1300 (BUS 151)	Introduction to Business	5
BUS	2110 (BUS 201)	Advanced Word Processing	8
BUS	2130 (BUS 260)	Advanced Spreadsheet Applications	3
BUS	2140 (BUS 252)	Advanced Database Applications	3
BUS	1160 (BUS 161)	Desktop Publishing	3
BUS	2160 (BUS 263)	Electronic Mail Applications	3

**Medical Administrative Assistant Specialization**

AHS	101	Anatomy and Physiology	5
AHS	109	Medical Terminology for Health Science	3
MAS	112	Human Diseases	5
BUS	2340 (BUS 216)	Medical Administrative Procedures	5
BUS	2370 (BUS 226)	Medical Office Billing/Coding/Insurance	5
XXX	xxx	Specific Occupational-Guided Electives	15

**Medical Administrative Assistant Elective Courses**

BUS	1100 (BUS 100)	Introduction to Keyboarding	3
BUS	1150 (BUS 105)	Database Applications	3
BUS	1160 (BUS 161)	Desktop Publishing	3
BUS	2110 (BUS 201)	Advanced Word Processing	5
BUS	2130 (BUS 260)	Advanced Spreadsheet Applications	3
BUS	2150 (BUS 261)	Presentation Applications	3
BUS	2160 (BUS 263)	Electronic Mail Applications	3

\*Program Advisor may recommend other approved specialization-related courses.

**Total Hours Required for Diploma****74-76**

**MICROSOFT OFFICE APPLICATIONS PROFESSIONAL  
Certificate**

**5CG1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The certificate program provides students with the knowledge and skills to perform word processing, spreadsheet, database, and presentation applications in an office environment. It is designed to provide hands-on instruction for developing foundation skills for office assistant careers.

**Curriculum**

**Credits**

**General Core Courses**

SCT	100	Introduction to Microcomputers	3
BUS	1140 (BUS 108)	Word Processing	5
BUS	1150 (BUS 105)	Database Applications	3
BUS	2120 (BUS 202)	Spreadsheet Applications	3
BUS	2150 (BUS 261)	Presentation Applications	3
BUS	xxxx	BUS Electives	5

**Total Hours Required for TCC** **22**

## **COMMERCIAL TRUCK DRIVING**

### **COMMERCIAL TRUCK DRIVING Certificate**

**TU01**

Availability: North Metro Campus

Program Purpose: The purpose of the Commercial Truck Driving certificate program is to prepare students for careers in commercial truck driving. The program emphasizes specialized training in fundamentals of CTD, basic CTD operation, advanced CTD operation and a CTD internship with a company to provide advanced training, which focuses on developing driving skills.

Admission Requirements: For Regular Admission, an applicant must be at least 18 years of age\*; complete an application; pay the application fee; and achieve the appropriate scores on the placement test.

\*The Commercial Truck Driving program prefers applicants to be 21 years of age or older. Students 18 to 20 years of age may operate a commercial truck only in the State of Georgia, and therefore, may have limited employment opportunities. Therefore, students under 21 must meet with the Director of Admissions and complete an acknowledgment form stating that they understand the restrictions on employment and training opportunities in the trucking industry.

Additionally, students must:

- Obtain a 7-year Motor Vehicle Report (MVR) from the State of Georgia Highway Patrol
- Have a valid driver's license and have no more than 8 points (or 5 points in one year) or 4 moving violations on the Georgia Violator Scale
- Not have any DUE violations in the last 7 years
- Successfully pass a NIDA 5 drug screen after NMTC receives the MVR
- Pass the Department of Transportation (DOT) physical examination

### **Curriculum**

### **Credits**

#### **General Core Courses**

CTD	101	Fundamentals of Commercial Truck Driving	5
CTD	102	Basic Operations	5
CTD	103	Advanced Operations	
<b><u>Or</u></b>			
CTD	104	Internship	5
<b>Total Hours Required for TCC</b>			<b>15</b>

## **COMPUTER INFORMATION SYSTEMS**

### **CIS COMPUTER PROGRAMMING** **Associate of Applied Science Degree**

**CIP3**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems – Computer Programming associate degree program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates receive a Computer Information Systems – Computer Programming Associate of Applied Science degree and are qualified for employment as computer programmers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Computer Programming in seven quarters.

#### **Courses**

#### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

#### **Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	5
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	
PSY	1101 (PSY 191)	Introduction to Psychology	5
<b><u>Or</u></b>			
SOC	1101 (SOC 191)	Introduction to Sociology	

#### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	5
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**General Core Elective**

XXX	xxx	General Core Elective (Suggested: ECON 1101 – Principles of Economics)	5
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**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	6
CIS	214	Database Management	6
<b><u>OR</u></b>			
CIS	2161	SQL Programming	
CIS	112	Systems Analysis and Design	6
CIS	xxx	Specific Occupational Guided Elective (Suggested: CIS 2202 - XHTML)	2
CIS	280	Advanced Systems Projects ( <b>Capstone Course</b> ) (Advisor's approval required; this course must be the last course taken before graduation)	7
ACC	1101 (ACC 101)	Principles of Accounting I	6

**Specific Occupational Guided Language Courses (28 credit hours)**  
**(Mandatory 14 credit hours from the same language is required)**

CIS	1121	Visual Basic.NET I	7
CIS	1122	Visual Basic.NET II	7
CIS	252	Introduction to Java Programming	7
CIS	2421	Intermediate Java Programming	7
CIS	2431	Advanced Java Programming	7
CIS	282	Introduction to C++ Programming	7
CIS	149	Advanced C++ Programming	7
CIS	1491	Introduction to C# Programming	7
CIS	1492	Intermediate C# Programming	7
CIS	2451	Introduction to PHP Programming	7
CIS	2452	Advanced PHP Programming	7

**Total Hours Required for Degree** **110**

**CIS NETWORKING SPECIALIST**  
**Associate of Applied Science Degree**

**CIN3**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Computer Information Systems - Networking Specialist associate degree program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates receive a Computer Information Systems - Networking Specialist Associate of Applied Science degree and are qualified for employment as networking specialists.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Networking Specialist in six quarters.

**Curriculum**

**Credits**

**Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

**Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	5
<u>Or</u>			
SPC	1101 (SPC 191)	Public Speaking	
PSY	1101 (PSY 191)	Introduction to Psychology	5
<u>Or</u>			
SOC	1101 (SOC 191)	Introduction to Sociology	

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	5
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	

### General Core Elective

XXX	xxx	General Core Elective (Suggested: ECON 1101 – Principles of Economics)	5
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### Occupational Courses

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	
<b>Or</b>			
CIS	2321	Introduction to LAN and WAN	6
CIS	122	Microcomputer Installation and Maintenance	7
CIS	xxx	CIS electives ( <i>Any CIS course or advisor approval</i> )	9
CIS	xxx	Program Language elective ( <i>advisor approval</i> )	7

**\*\*Completion of one of the three categories is required**

#### Category I Microsoft Windows Networking Specialty

CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153 ( <b>Capstone</b> )	Implementing Microsoft Windows Networking Infrastructure ( <i>Advisor's approval required; this course must be the last or 2<sup>nd</sup> to last CIS course taken before graduating</i> )	6
CIS	2154	Implementing MS Windows Networking Directory Services	6

#### Category II Cisco Networking Specialty

CIS	2321	Introduction to LAN and WAN	6
CIS	2322	Introduction to WANs and Routing	6
CIS	276	Advanced Routers and Switches	6
CIS	277 ( <b>Capstone</b> )	WAN Design ( <i>Advisor's approval required; this course must be the last CIS course taken before graduating</i> )	6

#### Category III Linux/UNIX Networking Specialty

CIS	2554	Introduction to Linux/UNIX	6
CIS	2555	Linux/UNIX Administration	6
CIS	2556	Linux/UNIX Advanced Administration	6
CIS	2557	Linux/UNIX Shell Script Programming	6

**Total Hours Required for Degree**  
**CIS INTERNET SPECIALIST - WEBSITE DESIGN**  
**Associate of Applied Science Degree**

**102**  
**CIW3**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems - Internet Specialist - Web Site Design associate degree program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates receive a Computer Information Systems - Internet Specialist - Web Site Design Associate of Applied Science degree and are qualified for employment as Internet Specialists – Web Site Designers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Website Design in six quarters.

**Curriculum**

**Credits**

**Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

**Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
SOC	1101 (SOC 191)	Introduction to Sociology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5



## General Core Elective

XXX	xxx	General Core Elective (Suggested: ECON 1101 – Principles of Economics)	5
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## Occupational Courses

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	6
CIS	2202	XHTML Fundamentals	5
CIS	2281	Database Connectivity	6
CIS	2261	JavaScript Fundamentals	4
CIS	1104	Web Graphics using Adobe Photoshop	4
CIS	1123	Web Graphics and Animation using Adobe Flash	6
CIS	2105	Advanced Web Graphics using Adobe Flash	6
CIS	2211	Web Site Design Tools	6
CIS	xxxx	Web Programming course (choose one)	
CIS	1106	Introduction to Web Programming using C#.NET	4
CIS	1109	Introduction to Web Programming using VB.NET	4
CIS	1110	Introduction to Web Programming using PHP	4
CIS	2231	Design Methodology <b>(Capstone Course)</b> (This course must be taken during student's last quarter before graduating; Advisor's approval required)	6

**Total Hours Required for Degree** **102**

**CIS INFORMATION SECURITY**  
**Associate of Applied Science Degree**

**CIC3**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems associate degree program is designed to provide students with an understanding of the concepts, principles, and techniques required in the field of computer information systems. Program graduates receive a Computer Information Systems Information Security Specialist Associate of Applied Science degree and are qualified for employment as Information Security specialists.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Information Security in six quarters.

**Curriculum**

**Credits**

**Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

**Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
SOC	1101 (SOC 191)	Introduction to Sociology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**General Core Elective**

XXX	xxx	General Core Elective	5
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### Occupational Courses

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	105	Program Design and Development	5
CIS	103	Operating Systems Concepts	6
CIS	1140	Networking Fundamentals	

#### Or

CIS	2321	Introduction to LAN and WAN	6
CIS	122	Microcomputer Installation and Maintenance	7
CIS	xxx	Procedural Language Elective (approved by an advisor)	7
CIS	1115	Information Security Fundamentals	5
CIS	1116	Security Policies and Procedures	5
CIS	1117	Implementing Operating Systems Security	6
CIS	1118	Implementing Network Security	6
CIS	1119	Implementing Internet/Intranet Firewalls	6
CIS	1120	Computer Forensics and Disaster Recovery	6

*(This course must be taken during student's last quarter before graduating; Advisor's approval required)*

**Total Hours Required for Degree**

**103**

## CIS COMPUTER PROGRAMMING Diploma

CIP4

Availability: Marietta Campus

Program Purpose: The Computer Information Systems – Computer Programming diploma program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates receive a Computer Information System – Computer Programming diploma and are qualified for employment as computer programmers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Computer Programming Diploma in six quarters.

### Curriculum

### Credits

#### **General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1013 (MAT 103)	Algebraic Concepts	
<b><u>Or</u></b>			
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	6
CIS	112	Systems Analysis and Design	6
CIS	214	Database Management	6
<b><u>OR</u></b>			
CIS	2161	SQL Programming	
CIS	280	Advanced Systems Projects ( <b>Capstone Course</b> )	7
<i>(Advisor's approval required; this course must be the last course taken before graduation)</i>			

**Specific Occupational Guided Language Courses (28 hours)**  
**(mandatory 14 credit hours from the same language is required)**

CIS	1121	Visual Basic.NET I	7
CIS	1122	Visual Basic.NET II	7
CIS	252	Introduction to Java Programming	7
CIS	2421	Intermediate Java Programming	7
CIS	2431	Advanced Java Programming	7
CIS	282	Introduction to C++ Programming	7
CIS	149	Advanced C++ Programming	7
CIS	1491	Introduction to C# Programming	7
CIS	1492	Intermediate C# Programming	7
CIS	2451	Introduction to PHP Programming	7
CIS	2452	Advanced PHP Programming	7
CIS	280	Advanced Systems Projects ( <b>Capstone Course</b> ) (Advisor's approval required; this course must be the last course taken before graduation)	7

<b>Total Hours Required for Diploma</b>	<b>90</b>
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**CIS NETWORKING SPECIALIST  
Diploma**

**CIN4**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Computer Information Systems - Networking Specialist diploma program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates receive a Computer Information Systems - Networking Specialist diploma and are qualified for employment as networking specialists.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Networking Specialist Diploma in six quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1013 (MAT 103)	Algebraic Concepts	
<b><u>Or</u></b>			
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	
<b><u>Or</u></b>			
CIS	2321	Introduction to LAN and WAN	6
CIS	122	Microcomputer Installation and Maintenance	7
CIS	xxx	CIS Networking electives ( <i>advisor approval</i> )	9
CIS	xxx	Program Language elective ( <i>advisor approval</i> )	7

**Category I      Microsoft Windows Networking Specialty**

CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153 <b>(Capstone)</b>	Implementing Microsoft Windows Networking Infrastructure <i>(Advisor's approval required; this course must be the last CIS course taken before graduating)</i>	6
CIS	2154	Implementing MS Windows Networking Directory Services	6

CIS	2321	Introduction to LAN and WAN	6
CIS	2322	Introduction to WANs and Routing	6
CIS	276	Advanced Routers and Switches	6
CIS	277 ( <b>Capstone</b> )	WAN Design ( <i>Advisor's approval required; this course must be the last CIS course taken before graduating</i> )	6

CIS	2554	Introduction to Linux/UNIX	6
CIS	2555	Linux/UNIX Administration	6
CIS	2556	Linux/UNIX Advanced Administration	6
CIS	2557	Linux/UNIX Shell Script Programming	6

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**CIS INTERNET SPECIALIST - WEBSITE DESIGN  
Diploma**

**CIW4**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems - Internet Specialist - Web Site Design diploma program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates receive a Computer Information Systems - Internet Specialist - Web Site Design diploma and are qualified for employment as Internet Specialists – Web Site Designers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Website Design Diploma in six quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1013 (MAT 103)	Algebraic Concepts	
<b><u>Or</u></b>			
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	1140	Networking Fundamentals	6
CIS	2202	XHTML Fundamentals	5
CIS	2281	Database Connectivity	6
CIS	2261	JavaScript Fundamentals	4
CIS	1104	Web Graphics using Adobe Photoshop	4
CIS	1123	Web Graphics and Animation using Adobe Flash	6
CIS	2105	Advanced Web Graphics using Adobe Flash	6
CIS	2211	Web Site Design Tools	6
CIS	xxxx	Web Programming course (choose one)	
CIS	1106	Introduction to Web Programming using C#.NET	4
CIS	1109	Introduction to Web Programming using VB.NET	4



CIS	1110	Introduction to Web Programming using PHP	4
CIS	2231	Design Methodology <b>(Capstone Course)</b> <i>(This course must be taken during student's last quarter before graduating; Advisor's approval required)</i>	6
<b>Total Hours Required for Diploma</b>			<b>90</b>

**CIS INFORMATION SECURITY  
Diploma**

**CIC4**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems diploma program is designed to provide students with an understanding of the concepts, principles, and techniques required in the field of computer information systems. Program graduates receive a Computer Information Systems Information Security diploma and are qualified for employment as Information Security specialists.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Information Security Diploma in six quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1013 (MAT 103)	Algebraic Concepts	
<b><u>Or</u></b>			
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	105	Program Design and Development	5
CIS	103	Operating Systems Concepts	6
CIS	1140	Networking Fundamentals	
<b><u>Or</u></b>			
CIS	2321	Introduction to LAN and WAN	6
CIS	122	Microcomputer Installation and Maintenance	7
CIS	xxx	Procedural Language Elective (approved by an advisor)	7
CIS	1115	Information Security Fundamentals	5
CIS	1116	Security Policies and Procedures	5

CIS	1117	Implementing Operating System Security	6
CIS	1118	Implementing Network Security	6
CIS	1119	Implementing Internet/Intranet Firewalls	
6CIS	1120	Computer Forensics and Disaster Recovery ( <i>Advisor's approval required; This course must be taken during student's last quarter before graduating</i> )	6
<b>Total Hours Required for Diploma</b>			<b>91</b>

**CIS Comp TIA A+ CERTIFIED TECHNICIAN PREPARATION  
Certificate**

**5AT1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The CompTIA A+ Certified Technician Preparation technical certificate of credit program has been designed to provide experienced computer users with the skills and knowledge necessary to pass the Comp TIA A+ Certified Professional certification exams.

**Curriculum**

**Credits**

**General Core Courses**

SCT	100	Introduction to Microcomputers	3
CIS	106	Computer Concepts	5
CIS	103	Operating Systems Concepts	6
CIS	122	Microcomputer Installation and Maintenance	7
CIS	286	Comp TIA A+ Preparation	7
<b><u>Or</u></b>			
CIS	1140	Network Fundamentals	7
<b>Total Hours Required for TCC</b>			<b>28</b>

**CIS C++ PROGRAMMER  
Certificate**

**5BF1**

Availability: Marietta Campus

Program Purpose: This program provides an opportunity for persons who are currently working in the programming field. This program is for those students seeking to add C++ programming knowledge to their current IT skills. Course work covers the increasingly popular applications the C++ programming language.

**Curriculum**

**Credits**

**General Core Courses**

CIS	105	Program Design and Development	
		<b><u>Or</u></b>	
		Advisor Approval	5
CIS	282	Introduction to C++ Programming	7
CIS	149	Advanced C++ Programming	7
CIS	xxx	CIS Elective	6

**Total Hours Required for TCC** **25**

**CIS INFORMATION SECURITY SPECIALIST  
Certificate**

**5BA1**

Availability: Marietta Campus

Program Purpose: The Information Security Specialist certificate is designed to give students the knowledge they need to understand and maintain computer information systems security.

Additional Admission Requirements: To begin this program, the student must have **Advisor's Approval**. The student must have experience in networking or have academic training or certifications in fundamentals of networking, including the OSI model and basic network physical configuration.

**Curriculum**

**Credits**

**General Core Courses**

CIS	1115	Information Security Fundamentals	5
CIS	1116	Security Policies and Procedures	5
CIS	1117	Implementing Operating System Security	6
CIS	1118	Implementing Network Security	6
CIS	1119	Implementing Internet/Intranet Firewalls	6
CIS	1120( <i>Capstone</i> )	Computer Forensics and Disaster Recovery ( <i>This course must be taken during student's last quarter before graduating; Advisor's approval required</i> )	6

**Total Hours Required for TCC**

**34**

**CIS INTERNET SPECIALIST - WEB SITE DEVELOPER  
Certificate**

**5CP1**

Availability: Marietta Campus

Program Purpose: The Computer Information Systems – Internet Specialist – Web Site Developer certificate program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required to create and support web sites. Program graduates receive a Computer Information Systems – Internet Specialist – Web Site Developer certificate and are qualified for employment as entry level web site developers.

**Curriculum**

**Credits**

**Occupational Courses**

CIS	2202	XHTML Fundamentals	5
CIS	2281	Database Connectivity	6
CIS	2261	JavaScript Fundamentals	4
CIS	2211	Web Site Design Tools	6
CIS	1104	Web Graphics using Adobe Photoshop	4
CIS	1123	Web Graphics and Animation using Adobe Flash	6
CIS	2105	Advanced Web Graphics using Adobe Flash	6
CIS	xxxx	Web Programming course (choose one)	4
CIS	1106	Introduction to Web Programming using C#.NET	
CIS	1109	Introduction to Web Programming using VB.NET	
CIS	1110	Introduction to Web Programming using PHP	
CIS	2231	Design Methodology <b>(Capstone Course)</b> <i>(This course must be taken during student's last quarter before graduating; Advisor's approval required)</i>	6

**Total Hours Required for TCC**

**47**

**CIS VISUAL BASIC PROGRAMMER  
Certificate**

**5BE1**

Availability: Marietta Campus

Program Purpose: This program provides an opportunity for persons who are currently working in the programming field. This program provides training and practice in the rapidly growing field of windows programming and the use of Visual Basic as a programming language. This program is for those students seeking to add Visual Basic knowledge to their current IT skills.

**Curriculum**

**Credits**

**General Core Courses**

CIS	105	Programming Design and Development	
		<b><u>Or</u></b>	
		Advisor Approval	5
CIS	1121	Visual Basic .NET I	7
CIS	1122	Visual Basic .NET II	7
CIS	2161	SQL Programming	7
<b>Total Hours Required for TCC</b>			<b>26</b>



**CISCO NETWORK SPECIALIST  
Certificate**

**5BG1**

Availability: Marietta Campus

Program Purpose: The Cisco Network Specialist program teaches how to build, maintain and troubleshoot computer networks. Students also learn how to connect these networks to other networks and the Internet.

**Curriculum**

**Credits**

**General Core Courses**

CIS	2321	Introduction to LAN and WAN	6
CIS	2322	Introduction to WANs and Routing	6
CIS	276	Advanced Routers and Switches	6
CIS	277	WAN Design	6

**Total Hours Required for TCC** **24**

**MICROSOFT NETWORKING SERVICE TECHNICIAN  
Certificate**

**5CM1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Microsoft Core Preparation certificate program is designed to prepare students to take the Microsoft Core Certification exams in MS Windows Professional, MS Windows Server, MS Windows Active Directory and MS Windows Network Infrastructure, thus preparing them for jobs in this area. The program emphasizes a combination of theory and practical application for successful employment and certification.

**Curriculum**

**Credits**

CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
CIS	2154	Implementing Microsoft Windows Networking Dir. Services	6

**Total Hours Required for TCC**

**24**

## **COSMETOLOGY**

### **COSMETOLOGY Diploma**

**CS02**

**Availability:** Multiple campus availability – check with the Admissions office

**Program Purpose:** The Cosmetology program is a sequence of courses that prepares students for careers in the field of cosmetology. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. Upon completion of required core classes, the program emphasizes specialized training in theory; safety; sanitation; state laws, rules and regulations; chemistry; anatomy and physiology; skin and nail care; hair coloring; reception; lab and salon management. The curriculum meets licensing requirements of the State of Georgia Board of Cosmetology. Program graduates receive a diploma. After examination and receipt of a Master Cosmetologist license, graduates are employable as cosmetologists, salon owners or managers, estheticians, nail technicians, platform artists or industry sales representatives.

**Program Length:** A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Cosmetology Diploma in five quarters.

### **Curriculum**

### **Credits**

**Cosmetology students are required to take the following courses and earn a grade of C or better before they will be registered for cosmetology classes:**

SCT	100	Introduction to Microcomputers	3
ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Students must earn a final grade of C or better in each Cosmetology course in order to be eligible to sit for the state license exam.**

#### **First Quarter**

COS	100	Introduction to Cosmetology Theory	5
COS	101	Introduction to Permanent Waving and Relaxing	4
COS	103	Introduction to Skin, Scalp, and Hair	3
COS	105	Introduction to Shampoo and Styling	4
COS	106	Introduction to Haircutting	3
COS	107	Advanced Haircutting	2

**Second Quarter**

COS	108	Permanent Waving and Relaxing	3
COS	109	Hair Color	6
COS	110	Skin, Scalp, and Hair	3
COS	111	Styling	3
COS	112	Manicuring and Pedicuring	3

**Third Quarter**

COS	113	Practicum I	5
COS	114	Practicum II	8

**Fourth Quarter**

COS	115	Practicum/Internship I	5
COS	116	Practicum/Internship II	5
COS	117	Salon Management	4

**Total Hours Required for Diploma** **82**

**COSMETIC ESTHETICIAN  
Certificate**

**CES1**

Availability: Appalachian Campus

Program Purpose: The Cosmetic Esthetician certificate is designed to offer esthetics training for entry-level students. Completion of the program prepares students to sit for the Esthetics licensure examination given by the Georgia State Board of Cosmetology

Additional Admission Requirements: Minimum Age: 17 years

**Curriculum**

**Credits**

**General Core Courses**

COS	117	Salon Management	4
EST	100	Introduction to Esthetics	5
EST	101	Anatomy and Physiology of Skin	5
EST	102	Skin Care Procedures	6
EST	103	Electricity and Facial Treatment	7
EST	104	Advanced Skin Care	5
EST	105	Color Theory and Makeup	4
EST	106	Esthetics Practicum I	6
EST	107	Esthetics Practicum II	6

**Total Hours Required for TCC** **48**

## **CRIMINAL JUSTICE TECHNOLOGY**

### **CRIMINAL JUSTICE TECHNOLOGY Associate of Applied Science Degree**

**CJ03**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The associate of applied science degree in Criminal Justice Technology is a sequence of courses that prepares students to become law enforcement professionals. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of law enforcement theory and practical application necessary for successful employment. Program graduates receive a Criminal Justice Technology Associate of Applied Science degree. Graduates who are currently working in the criminal justice field will enhance career potential. Persons entering the criminal justice field will be prepared to pursue diverse opportunities in law enforcement, corrections, security, investigation, and public protection.

Career Information: Certain positions require additional training and certification by the Georgia Peace Officer Standards and Training Council. Individuals convicted of felonies or sufficient misdemeanors that establish a pattern of disregard for the law are not eligible for certification and may also be disqualified from employment or licensure in the private sector. Public and private sector employers may also require submission to the following before offering employment: extensive background investigations, polygraph examinations, drug screening, criminal history checks and psychological assessments. Some positions require education beyond a technical certificate, diploma or associate of applied science. Successful completion of the program of study does not guarantee certification, licensure, or employment.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Criminal Justice Technology in five quarters.

Additional Admission Requirements: Field internships are an integral part of the criminal justice program. Intern/practicum sites may require prospective interns to complete an extensive background investigation questionnaire, submit to a criminal records check, and/or participate in drug screening. Failure to meet the requirements of these internship/practicum sites may prevent completion of the program. Students are reminded that licensing and certification boards for program-related occupations may deny, suspend or revoke a license or certification if an applicant has a criminal history or is convicted, pleads guilty or *nolo contendere* to a felony or other crime. Students should consult the licensing or certification board corresponding to their intended occupations for more details. Successful completion of the program of study does not guarantee certification, licensure, or employment.

**Curriculum****Credits****Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

**Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Public Speaking	
<b><u>Or</u></b>			
ENG	1105 (ENG 195)	Technical Communications	5
ECO	1101 (ECO 191)	Principles of Economics	5
PSY	1101 (PSY 191)	Introduction to Psychology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	
<b><u>Or</u></b>			
MAT	1100 (MAT 196)	Quantitative Skills and Reasoning	5

**Occupational Courses**

CRJ	101	Introduction to Criminal Justice	5
CRJ	103	Corrections	5
CRJ	104	Principles of Law Enforcement	5
CRJ	105	Introduction to Criminal Procedure	5
CRJ	168	Criminal Law	5
CRJ	202	Constitutional Law	5
CRJ	207	Juvenile Justice	5
CRJ	209	Criminal Justice Practicum/Internship	5
CRJ	212	Ethics in Criminal Justice	5
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Occupational related Electives*	20

\*Occupational related electives may include any of the courses from the following program

disciplines; CRJ, HLS, EMY, SOC, MSD 100, MSD 103, MSD 106, ECE 1052 (ECE 152), DIS 150 J & K, or FSC.

**Total Hours Required for Degree**

**98**



## CRIMINAL JUSTICE TECHNOLOGY Diploma

CJ02

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Criminal Justice Technology diploma program provides academic foundations in communications, mathematics, and human relations as well as occupational fundamentals. Program graduates are knowledgeable in the areas of constitutional and criminal law, law enforcement, criminal justice, corrections, and juvenile justice. Graduates are well prepared for careers in private security, corrections, and public protection.

Career Information: Certain positions require additional training and certification by the Georgia Peace Officer Standards and Training Council. Individuals convicted of felonies or sufficient misdemeanors that establish a pattern of disregard for the law are not eligible for certification and may also be disqualified from employment or licensure in the private sector. Public and private sector employers may also require submission to the following before offering employment: extensive background investigations, polygraph examinations, drug screening, criminal history checks and psychological assessments. Some positions require education beyond a technical certificate, diploma or associate of applied science. Successful completion of the program of study does not guarantee certification, licensure, or employment.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Criminal Justice Technology Diploma in four quarters.

Additional Admission Requirements: Field internships are an integral part of the criminal justice program. Intern/practicum sites may require prospective interns to complete an extensive background investigation questionnaire, submit to a criminal records check, and/or participate in drug screening. Failure to meet the requirements of these internship/practicum sites may prevent completion of the program. Students are reminded that licensing and certification boards for program-related occupations may deny, suspend or revoke a license or certification if an applicant has a criminal history or is convicted, pleads guilty or *nolo contendere* to a felony or other crime. Students should consult the licensing or certification board corresponding to their intended occupations for more details. Successful completion of the program of study does not guarantee certification, licensure, or employment.

### Curriculum

### Credits

#### General Core Courses

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
PSY	1010 (PSY 101)	Basic Psychology	5

**Occupational Courses**

CRJ	101	Introduction to Criminal Justice	5
CRJ	103	Corrections	5
CRJ	104	Principles of Law Enforcement	5
CRJ	105	Criminal Procedure	5
CRJ	168	Criminal Law	5
CRJ	202	Constitutional Law	5
CRJ	207	Juvenile Justice	5
CRJ	209	Criminal Justice Practicum/Internship	5
CRJ	212	Ethics in Criminal Justice	5
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Occupational related Electives*	10

\*Occupational related electives may include any of the courses from the following program disciplines: CRJ, HLS, EMY, SOC, MSD 100, MSD 103, MSD 106, ECE 1052 (ECE 152), DIS 150 J & K, or FSC.

**Total Hours Required for Diploma** **73**

## CRIMINAL JUSTICE SUPERVISOR Certificate

CJP1

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Criminal Justice Supervision Technical Certificate of Credit is designed to introduce criminal justice students to basic principles necessary to become effective managers and supervisors. Graduates who are current practitioners within the field of criminal justice will benefit through enhancement of career potential to pursue in-field leadership and/or management positions. Program studies explore topics such as organizational structure, team building/leadership, and performance management. This program is designed to satisfy a limited number of prerequisites required to obtain certain career development certifications through the Georgia Peace Officer Standards and Training Council.

### Career Information:

Certain positions require additional training and certification by the Georgia Peace Officer Standards and Training Council. Individuals convicted of felonies or sufficient misdemeanors that establish a pattern of disregard for the law are not eligible for certification and may also be disqualified from employment or licensure in the private sector. Public and private sector employers may also require submission to the following before offering employment: extensive background investigations, polygraph examinations, drug screening, criminal history checks and psychological assessments. Some positions require education beyond a technical certificate, diploma or associate of applied science. Successful completion of the program of study does not guarantee certification, licensure, or employment.

### Additional Requirements:

Field internships are an integral part of the criminal justice program. Intern/practicum sites may require prospective interns to complete an extensive background investigation questionnaire, submit to a criminal records check, and/or participate in drug screening. Failure to meet the requirements of these internship/practicum sites may prevent completion of the program. Students are reminded that licensing and certification boards for program-related occupations may deny, suspend or revoke a license or certification if an applicant has a criminal history or is convicted, pleads guilty or *nolo contendere* to a felony or other crime. Students should consult the licensing or certification board corresponding to their intended occupations for more details. Successful completion of the program of study does not guarantee certification, licensure, or employment.

## Curriculum

## Credits

### General Core Courses

SCT	100	Introduction to Microcomputers	3
CRJ	101	Introduction to Criminal Justice	5

CRJ	103	Corrections	5
CRJ	105	Introduction to Criminal Procedure	5
MSD	100	Principles of Management	5
MSD	103	Leadership	5
MSD	106	Performance Management	5
<b>Total Hours Required for TCC</b>			<b>33</b>

## JUVENILE JUSTICE SPECIALIST Certificate

JJS1

Availability: Marietta Campus

Program Purpose: Many dedicated professionals in the field of criminal justice, such as law enforcement officers, and those in associated support fields such as child protection agencies, have a need for focused, in-depth study in the specialized areas of accommodating, rehabilitating and disciplining juvenile offenders.

This certificate of credit will provide students with the opportunity for a dedicated cohort experience with in-depth academic preparation in the study of the specialized subfields of juvenile psychology, and juvenile justice technology as well as an appropriate, concentrated, supervised practical field experience within the area of juvenile justice.

Career Information: Certain positions require additional training and certification by the Georgia Peace Officer Standards and Training Council. Individuals convicted of felonies or sufficient misdemeanors that establish a pattern of disregard for the law are not eligible for certification and may also be disqualified from employment or licensure in the private sector. Public and private sector employers may also require submission to the following before offering employment: extensive background investigations, polygraph examinations, drug screening, criminal history checks and psychological assessments. Some positions require education beyond a technical certificate, diploma or associate of applied science. Successful completion of the program of study does not guarantee certification, licensure, or employment.

Additional Requirements: Field internships are an integral part of the criminal justice program. Intern/practicum sites may require prospective interns to complete an extensive background investigation questionnaire, submit to a criminal records check, and/or participate in drug screening. Failure to meet the requirements of these internship/practicum sites may prevent completion of the program. Students are reminded that licensing and certification boards for program-related occupations may deny, suspend or revoke a license or certification if an applicant has a criminal history or is convicted, pleads guilty or *nolo contendere* to a felony or other crime. Students should consult the licensing or certification board corresponding to their intended occupations for more details. Successful completion of the program of study does not guarantee certification, licensure, or employment.

### Curriculum

### Credits

#### General Core Courses

CRJ	207	Juvenile Justice	5
ECE	1052 (ECE 152)	Early Adolescent Development	5
CRJ	209	Criminal Justice Technology Practicum/Internship	5

**CULINARY ARTS****CULINARY ARTS****CUL3****Associate of Applied Science Degree**Availability: Mountain View Campus

Program Purpose: The Culinary Arts associate of applied science degree program prepares students for the culinary profession. Learning opportunities develop academic, occupational, and professional knowledge and skills. The program emphasizes a combination of culinary theory and practical application necessary for successful employment. Program graduates receive a Culinary Arts Associate of Applied Science degree. Graduates who are current practitioners will benefit through enhancement of career potential. Those entering the culinary arts field will be prepared to pursue diverse opportunities as cooks, bakers, or caterers/culinary managers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Culinary Arts in six quarters.

**Curriculum****Credits****Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

**Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	5
SOC	1101 (SOC 191)	Introduction to Sociology	5
SPC	1101 (SPC 191)	Public Speaking	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	5
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**Occupational Courses**

CUL	100	Professionalism in Culinary Arts	3
CUL	110	Food Service Sanitation and Safety	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5

CUL	116	Food Service Purchasing and Control	3
CUL	121	Baking Principles I	5
CUL	122	Baking Principles II	5
CUL	127	Banquet Preparation and Presentation	4
CUL	129	Front of the House Service	3
CUL	130	Pantry, Hors d'oeuvres and Canapés	5
CUL	132	Garde Manger	5
CUL	133	Food Service Leadership and Decision Making	5
CUL	137	Nutrition and Menu Management	3
CUL	215	Contemporary Cuisine I	5
CUL	220	Contemporary Cuisine II	5
CUL	216	Practicum/Internship I	11
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Degree</b>			<b>109</b>

**CULINARY ARTS  
Diploma****CUL4**Availability: Mountain View Campus

Program Purpose: The Culinary Arts diploma program prepares students for the culinary profession. Learning opportunities develop academic, occupational, and professional knowledge and skills. The program emphasizes a combination of culinary theory and practical application necessary for successful employment. Program graduates receive a Culinary Arts diploma. Graduates who are current practitioners will benefit through enhancement of career potential. Those entering the culinary arts field will be prepared to pursue diverse opportunities as cooks, bakers, or caterers/culinary managers.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Culinary Arts Diploma in five quarters.

**Curriculum****Credits****General Core Courses**

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

CUL	100	Professionalism in Culinary Arts	3
CUL	110	Food Service Sanitation and Safety	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5
CUL	116	Food Service Purchasing and Control	3
CUL	121	Baking Principles I	5
CUL	122	Baking Principles II	5
CUL	127	Banquet Preparation and Presentation	4
CUL	129	Front of the House Service	3
CUL	130	Pantry, Hors d'oeuvres and Canapés	5
CUL	132	Garde Manger	5
CUL	133	Food Service Leadership and Decision Making	5
CUL	137	Nutrition and Menu Management	3
CUL	215	Contemporary Cuisine I	5
CUL	220	Contemporary Cuisine II	5



CUL	216	Practicum/Internship I	
11			
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>92</b>

**ASSISTANT FOOD SERVICE PURCHASING AGENT  
Certificate**

**5AA1**

Availability: Mountain View Campus

Program Purpose: The Assistant Food Service Purchasing Agent technical certificate is designed to provide entry-level employment skills for basic purchasing agents in the food service fields.

**Curriculum**

**Credits**

**General Core Courses**

CUL	100	Professionalism in Culinary Arts	3
CUL	110	Food Service Sanitation and Safety	3
CUL	116	Food Service Purchasing and Control	3
MAT	1012	Foundations of Mathematics	5
XXX	xxx	Elective (must have approval from program advisor)	3
<b>Total Hours Required for TCC</b>			<b>17</b>

**CATERING SPECIALIST  
Certificate**

**CTG1**

Availability: Mountain View Campus

Program Purpose: This technical certificate of credit provides skills in the area of food prep, food production, and food decoration. Also, banquet presentation and setup, cuisine, and pantry/garde/manager skills are provided to ensure necessary employment skills as a cater/food provider.

**Curriculum**

**Credits**

**General Core Courses**

CUL	110	Food Service Sanitation and Safety	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5
CUL	121	Baking Principles I	5
CUL	122	Baking Principles II	5
CUL	127	Banquet Preparation and Presentation	4
CUL	130	Pantry, Hors d'oeuvres and Canapés	5
CUL	132	Garde Manger	5
CUL	215	Contemporary Cuisine I	5
CUL	220	Contemporary Cuisine II	5

**Total Hours Required for TCC** **48**

**CULINARY ARTS LINE COOK  
Certificate**

**CAF1**

Availability: Mountain View Campus

Program Purpose: This technical certificate of credit is designed to provide basic entry-level skills as a food production worker and prep cook. Topics include: introduction to food services, safety and sanitation, principles of cooking and nutrition and menu management.

**Curriculum**

**Credits**

**General Core Courses**

CUL	100	Professionalism in Culinary Arts	3
CUL	110	Food Service Safety and Sanitation	3
CUL	112	Principles of Cooking	6
CUL	121	Baking Principles I	5
CUL	130	Pantry, Hors d'oeuvres and Canapés	5
CUL	137	Nutrition and Menu Management	3
XXX	xxx	Elective (must have approval from program advisor)	5

**Total Hours Required for TCC** **30**

**PREP COOK  
Certificate**

**5AC1**

Availability: Mountain View Campus

Program Purpose: This technical certificate of credit provides skills for entry into the food services preparation area as a prep cook. Topics include: food services history, safety and sanitation, purchasing and food control, nutrition and menu development and design, along with the principles of cooking.

**Curriculum**

**Credits**

**General Core Courses**

CUL	100	Professionalism in Culinary Arts	3
CUL	110	Food Service Sanitation and Safety	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5
CUL	116	Food Service Purchasing and Control	3
XXX	xxx	Elective (must have approval from program advisor)	3

**Total Hours Required for TCC** **23**

## **DIESEL EQUIPMENT TECHNOLOGY**

### **DIESEL EQUIPMENT TECHNOLOGY Diploma**

**QP04**

Availability: North Metro Campus

Program Purpose: The purpose of the Diesel Equipment Technology program is to prepare students for careers in the truck service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes truck repair theory and practical application necessary for successful employment. Program graduates receive a Diesel Equipment Technology diploma which qualifies them as Diesel Equipment Technicians.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English I	5
MAT	1012 (MAT 101)	General Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations & Professional Development	3

**Choose one of the following two specializations:**

#### **Occupational Courses for Heavy Equipment Specialization**

DET	121	Diesel Technology, Tools, and Safety	5
DET	123	Preventative Maintenance I	4
DET	124	Preventative Maintenance II	3
DET	125	Electrical/Electronic Systems	4
DET	127	Starting & Charging Systems	3
DET	129	Hydraulic Systems I	4
DET	131	Electronic Controls and Accessory Systems	5
DET	132	Diesel Engine Overhaul/Service I	5
DET	133	Diesel Engine Overhaul/Service II	5
DET	135	Diesel Engine Fuel Systems, Tune-up & Performance	5
DET	137	Heating, Ventilation and Air Conditioning	5
DET	230	Hydraulic Systems II	4

DET	231	Hydraulic Systems III	4
DET	233	Heavy Equipment Power Train System I	5
DET	234	Heavy Equipment Power Train System II	5
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Electives	8

### **Occupational Courses for Truck Specialization**

DET	121	Diesel Technology, Tools, & Safety	5
DET	123	Preventative Maintenance I	4
DET	124	Preventative Maintenance II	3
DET	125	Electrical/Electronic Systems	4
DET	127	Starting and Charging Systems	3
DET	129	Hydraulic Systems I	4
DET	131	Electronic Controls and Accessory Systems	5
DET	132	Diesel Engine Overhaul/Service I	5
DET	133	Diesel Engine Overhaul/Service II	5
DET	135	Diesel Engine Fuel Systems, Tune-up & Performance	5
DET	137	Heating, Ventilation and Air Conditioning	5
DET	211	Hydraulic Brake Systems	4
DET	213	Air Brake Systems	4
DET	215	Steering and Suspension Systems I	3
DET	216	Steering and Suspension Systems II	3
DET	217	On Highway Truck Power Train Systems I	4
DET	218	On Highway Truck Power Train Systems II	4
DET	220	Automatic Transmissions	4
SCT	100	Introduction to Microcomputers	3

**Total Hours Required for Diploma** **90**

## **DIGITAL MEDIA ARTS**

### **DIGITAL MEDIA ARTS Associate of Applied Science Degree**

**DMA3**

Availability: Mountain View Campus

Program Purpose: The Digital Media Arts associate degree program is designed to allow students to gain education and training for careers in the Broadcast, Design or Animation production field. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of technical courses and supporting courses. Graduates of the program will have a wide variety of job opportunities in the entertainment field in the areas of video, graphics, animation, and non-linear editing.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Digital Media Arts in five quarters.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

##### **Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	5
SOC	1101 (SOC 191)	Introduction to Sociology	5
SPC	1101 (SPC 191)	Public Speaking	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	5
<u>Or</u>			
MAT	1111 (MAT 191)	College Algebra	5

##### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
DMP	101	Art History Appreciation/Color Theory/Typography	5
DMP	102	Introduction to Graphics for Broadcast	5



DMP	103	Introduction to Illustrator	5
DMP	104	3D Graphic Design I	5
DMP	202	Intermediate Graphics for Broadcast	5
DMP	203	Web Design/Development	5
DMP	204	Web Design/Development 2	5
DMP	206	Introduction to After Effects	5
DMP	207	Intermediate After Effects	5
DMP	208	3D Graphics Design 2	5
ENT	103	Digital Post-Production	5

**Advanced Specialized Program Courses (select 10 hours from the following)**

DMP	205	DVD Menu Creation	5
DMP	212	Advanced Motion Graphics Projects/Story Development/ Storyboarding	5
DMP	216	Portfolio/Demo Reel 1	5
DMP	217	Motion Graphics Studio	5
DMP	218	Portfolio/Demo Reel 2	5
ENT	215	Entertainment Technology Internship	5

**Total Hours Required for Degree** **98**

## **DRAFTING TECHNOLOGY**

### **DRAFTING**

**DR03**

#### **Associate of Applied Science Degree**

Availability: Marietta Campus

Program Purpose: The Drafting Technology associate degree program is designed to prepare students for employment in a variety of positions in the drafting field. The program provides learning opportunities that introduce, develop, and reinforce academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills in drafting. Program graduates receive a Drafting Technology Associate of Applied Science degree.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Drafting in four quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

#### **Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
<u>Or</u>			
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<u>Or</u>			
SOC	1101 (SOC 191)	Introduction to Sociology	5

#### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
MAT	1113 (MAT 194)	Precalculus	5
PHY	1110 (PHY 190)	Introduction to Physics	5
<b><u>Or</u></b>			
PHY	1111 (PHY 191)	Mechanics	5

### **Occupational Courses**

DDF	100	Drafting Fundamentals	6
DDF	102	Size and Shape Description I	5
DDF	107	Introduction to CAD	6
DDF	111	Intermediate CAD	6
DDF	112	3-D Drawing and Modeling	6
SCT	100	Introduction to Microcomputers	3

\*One of the following options (mechanical or architectural) must be completed

### **Mechanical Option**

DDF	103	Size and Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	106	Fasteners	6
DDF	108	Intersections and Development	5
DDF	109	Assembly Drawings I	5
XXX	xxx	Electives**	5

### **Architectural Option**

DDS	204	Estimating	3
DDS	205	Residential Architectural Drawing I	6
DDS	207	Mechanical Systems for Architecture	3
DDS	208	Residential Architectural Drawing II	6
DDF	xxx	Drawing Elective	6
XXX	xxx	Electives**	5

\*\*Approved Electives

CIS	106	Computer Concepts	5
DIS	150DD	Directed Drafting Study	6
EET	191	Computer Programming Fundamentals	5
MKT	100	Introduction to Marketing	5
MSD	100	Principles of Management	5

**Total Hours Required for Degree** **96**

**DRAFTING  
Diploma****DR02**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Drafting Technology diploma program is designed to prepare students for employment in a variety of positions in the drafting field. The program provides learning opportunities that introduce, develop, and reinforce academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills in drafting. Program graduates receive a Drafting Technology diploma.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Drafting Diploma in four quarters.

**Curriculum****Credits****General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1013 (MAT 103)	Algebraic Concepts	5
MAT	1015 (MAT 104)	Geometry and Trigonometry	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

DDF	100	Drafting Fundamentals	6
DDF	102	Size and Shape Description I	5
DDF	107	Introduction to CAD	6
DDF	111	Intermediate CAD	6
DDF	112	3-D Drawing & Modeling	6
SCT	100	Introduction to Microcomputers	3

\*One of the following options (mechanical or architectural) must be completed

**Mechanical Option**

DDF	103	Size and Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	106	Fasteners	6
DDF	108	Intersections and Development	5
DDF	109	Assembly Drawings I	5
XXX	xxx	Electives**	5

**Architectural Option**

DDS	204	Estimating	3
DDS	205	Residential Architectural Drawing I	6
DDS	207	Mechanical Systems for Architecture	3
DDS	208	Residential Architectural Drawing II	6
DDF	xxx	Drawing Elective	6
XXX	xxx	Electives**	5

**\*\*Approved Electives**

CIS	106	Computer Concepts	5
EET	191	Computer Programming Fundamentals	5
MKT	100	Introduction to Marketing	5
MSD	100	Principles of Management	5

**Total Hours Required for Diploma** **79**

**ADVANCED ARCHITECTURAL CAD DRAFTER  
Certificate**

**AAD1**

Availability: Marietta Campus

Program Purpose: The Advanced Architectural CAD Drafter's Technical Certificate of Credit is designed to prepare students for industry positions in the architectural drafting field requiring a more advanced knowledge level of CAD. The TCC provides learning opportunities that introduce technical knowledge, skills, and attitudes required for job advancement. Requirements for Drafter's Assistant TCC and Architectural CAD Drafter's TCC must be completed to receive the Advanced Architectural CAD Drafter's Technical Certificate of Credit.

**Curriculum**

**Credits**

**General Core Courses**

DDS	204	Estimating	3
DDS	208	Residential Architectural Drawing II	6
DDF	112	3-D Drawing and Modeling	6

**Total Hours Required for TCC** **15**

**ADVANCED MECHANICAL CAD DRAFTER  
Certificate**

**AMC1**

Availability: Marietta Campus

Program Purpose: The Advanced Mechanical CAD Drafter's Technical Certificate of Credit is designed to prepare students for a more advanced level of employment with CAD knowledge to assist engineers in a variety of positions in the drafting field. The TCC provides learning opportunities that introduce technical knowledge, skills, and attitudes required for job advancement. Requirements for Drafter's Assistant TCC and Mechanical CAD Drafter's TCC must be completed to receive the Advanced Mechanical CAD Drafter's Technical Certificate of Credit.

**Curriculum**

**Credits**

**General Core Courses**

DDF	106	Fasteners	6
DDF	109	Assembly Drawings I	5
DDF	112	3D Drawing and Modeling	6

<b>Total Hours Required for TCC</b>	<b>17</b>
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**ARCHITECTURAL CAD DRAFTER  
Certificate**

**ARD1**

Availability: Marietta Campus

Program Purpose: The Architectural CAD Drafter's Technical Certificate of Credit is designed to prepare students for an intermediate level of employment with CAD knowledge to assist architectural drafters and architects in a variety of positions in the architectural drafting field. The TCC provides learning opportunities that introduce technical knowledge, skills, and attitudes required for job advancement. Requirements for Drafter's Assistant TCC must be completed to receive the Architectural CAD Drafter's Technical Certificate of Credit.

**Curriculum**

**Credits**

**General Core Courses**

DDS	205	Residential Architectural Drawing I	6
DDS	207	Mechanical Systems for Architecture	3
DDF	111	Intermediate CAD	6

**Total Hours Required for TCC** **15**



**CAD DRAFTING TECHNOLOGY  
Certificate**

**CZ01**

Availability: Appalachian Campus

Program Purpose: Computer-Aided Drafting (CAD) is a certificate program that provides the student with the knowledge and skills to become a CAD technician. This program teaches new and experienced drafters the operations, hardware usage, and technical language of computer aided drafting and design applications. The program prepares students for employment with manufacturing, construction, and engineering companies. This program is also designed to help students who are already employed in the drafting profession learn new applications that are now made available through the power of a CAD system.

**Curriculum**

**Credits**

**General Core Courses**

DDF	102	Size and Shape Description I	5
DDF	103	Size and Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	107	Introduction to CAD	6
DDF	111	Intermediate CAD	6
DDF	112	3-D Drawing and Modeling	6
DDS	202	Advanced CAD	6
<b>Total Hours Required for TCC</b>			<b>37</b>

**DRAFTER'S ASSISTANT  
Certificate**

**DRA1**

Availability: Marietta Campus

Program Purpose: The Drafter's Assistant Technical Certificate of Credit is designed to prepare students for entry level employment with basic CAD knowledge to assist drafters in a variety of positions in the drafting field. The TCC provides learning opportunities that introduce technical knowledge, skills, and attitudes required for job acquisition.

**Curriculum**

**Credits**

**General Core Courses**

DDF	100	Drafting Fundamentals	
		<b><u>Or</u></b>	
DDF	101	Introduction to Drafting	6
DDF	102	Size and Shape Description I	5
DDF	107	Introduction to CAD	6
<b>Total Hours Required for TCC</b>			<b>17</b>

**MECHANICAL CAD DRAFTER  
Certificate**

**MHC1**

Availability: Marietta Campus

Program Purpose: The Mechanical CAD Drafter's Technical Certificate of Credit is designed to prepare students for intermediate level employment with CAD knowledge to assist drafters and engineers in a variety of positions in the drafting field. The TCC provides learning opportunities that introduce technical knowledge, skills, and attitudes required for job acquisition and advancement. Requirements for Drafter's Assistant TCC must be completed to receive Mechanical CAD Drafter's Technical Certificate of Credit.

**Curriculum**

**Credits**

**General Core Courses**

DDF	103	Size and Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	108	Intersections and Development	5
DDF	111	Intermediate CAD	6

**Total Hours Required for TCC** **19**

## **EARLY CHILDHOOD CARE AND EDUCATION**

### **EARLY CHILDHOOD CARE AND EDUCATION Associate of Applied Science Degree**

**0003**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Early Childhood Care and Education associate of applied science degree program is a sequence of courses designed to prepare students for a variety of careers in the field of early childhood education. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of early childhood care and education theory and practical application, as well as general core competencies necessary for successful employment. Program graduates receive an Early Childhood Care and Education Associate of Applied Science degree and have the qualifications to be employed in early care and education settings including child care centers, Head Start, Georgia Pre-K programs, and elementary school paraprofessional positions. Graduates will receive a specialization in one of four areas: Exceptionalities, Infant/ Toddler, Program Administration or Paraprofessional.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Early Childhood Care and Education in eight quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	
<b><u>Or</u></b>			
ART	1101 (ART 191)	Art Appreciation	
<b><u>Or</u></b>			
MUS	1101 (MUS 191)	Music Appreciation	5

#### **Area II – Social/Behavioral Sciences**

ENG	1105 (ENG 195)	Technical Communications	
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<u><b>Or</b></u>			
MAT	1111 (MAT 191)	College Algebra	5

**General Core Course**

SOC	1101 (SOC 191)	Introduction to Sociology	
<u><b>Or</b></u>			
HUM	1101 (HUM 191)	Introduction to Humanities	
<u><b>Or</b></u>			
BIO	1111 (BIO 191)	Biology I	
<u><b>Or</b></u>			
MAT	1127 (MAT 198)	Introduction to Statistics	
<u><b>Or</b></u>			
CHM	1213 (CHM 191)	Survey of Inorganic Chemistry	5

**Occupational Courses**

ECE	1010 (ECE 101)	Introduction to Early Childhood Care and Education	5
ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	1050 (ECE 105)	Health, Safety and Nutrition	5
ECE	1012 (ECE 112)	Curriculum Development	3
ECE	1013 (ECE 113)	Art for Children	3
ECE	1014 (ECE 114)	Music and Movement	3
ECE	2115 (ECE 115)	Language Arts and Literature	5
ECE	2116 (ECE 116)	Math and Science	5
ECE	1021 (ECE 121)	Early Childhood Care and Education Practicum I	3
ECE	1022 (ECE 122)	Early Childhood Care and Education Practicum II	3
ECE	2010 (ECE 201)	Exceptionalities	5
ECE	2020 (ECE 202)	Social Issues and Family Involvement	5
ECE	2240 (ECE 224)	Early Childhood Care and Education Internship	12
SCT	100	Introduction to Microcomputers	3

**Specialization Courses: Students will choose ONE specialization and will take all three courses in that specialization**

**Exceptionalities Specialization**

ECE	2260 (ECE 260)	Characteristics of Young Children with Exceptionalities	5
ECE	2262 (ECE 262)	Classroom Strategies and Intervention	5
ECE	2264 (ECE 264)	Exploring your Role in the Exceptional Environment	5

**Infant/Toddler Specialization**

ECE	2132 (ECE 132)	Infant/Toddler Development	5
ECE	2134 (ECE 134)	Infant/Toddler Group Care	5
ECE	2136 (ECE 136)	Infant/Toddler Curriculum	5

**Management Specialization**

ECE	2170 (ECE 217)	Program Administration	5
ECE	2210 (ECE 221)	Facility Management	5
ECE	2220 (ECE 222)	Personnel Management	5

**Paraprofessional Specialization**

ECE	2030 (ECE 203)	Human Growth and Development II	5
ECE	2110 (ECE 211)	Methods and Materials	5
ECE	2120 (ECE 212)	Professional Practices	5

**Total Hours Required for Degree** **110**

\*Criminal record check required.

**EARLY CHILDHOOD CARE AND EDUCATION  
Diploma**

**0002**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Early Childhood Care and Education diploma program is a sequence of courses designed to prepare students for careers in early childhood education. Learning opportunities develop academic, technical and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of early childhood care and education theory and practical application necessary for successful employment. Program graduates receive an Early Childhood Care and Education diploma, and have the qualifications to work in a variety of early childhood settings with children from birth through five years of age.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Early Childhood Care and Education Diploma in five quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
MAT	1012 (MAT 101)	Foundations of Mathematics	5

**Occupational Courses**

ECE	1010 (ECE 101)	Introduction to Early Childhood Care and Education	5
ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	1050 (ECE 105)	Health, Safety and Nutrition	5
ECE	1012 (ECE 112)	Curriculum Development	3
ECE	1013 (ECE 113)	Art for Children	3
ECE	1014 (ECE 114)	Music and Movement	3
ECE	2115 (ECE 115)	Language Arts and Literature	5
ECE	2116 (ECE 116)	Math and Science	5
ECE	1021 (ECE 121)	Early Childhood Care and Education Practicum I	
<b><u>Or</u></b>			
ECE	xxx	Program Elective	3

ECE	1022 (ECE 122)	Early Childhood Care and Education Practicum II	
		<b><u>Or</u></b>	
ECE	xxx	Program Elective	3
ECE	2020 (ECE 202)	Social Issues and Family Involvement	5
ECE	2240 (ECE 224)	Early Childhood Care and Education Internship	12
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>73</b>

\*Criminal record check required.



**CHILD DEVELOPMENT ASSOCIATE I  
Certificate**

**CDA1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The CDA I technical certificate of credit is designed to meet the training needs of persons already working in the field of early care and education. Persons enrolling in this program must have completed a minimum of 480 hours of work in the field with young children. This program is designed to provide the minimum formal training in early care and education competencies, knowledge, skills and techniques required to apply for a CDA credential from the Council for Professional Recognition in Washington, D.C. The CDA credential is not issued by the technical college and must be applied for and paid for separately from this program. However, this program is approved to provide the needed training to attain this credential. Once achieved, this credential is recognized nationally by Head Start and in Georgia by State Pre-K programs and in many other public and private early care and education settings as an entry-level credential. Students who do not wish to complete the national CDA credential may also enroll in and complete the CDA I technical certificate of credit as an entry level credential for work in the early childhood care and education field.

**Curriculum**

**Credits**

**General Core Courses**

ECE	1010 (ECE 101)	Introduction to Early Childhood Care and Education	5
ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	1050 (ECE 105)	Health, Safety and Nutrition	5
ECE	1025 (ECE 125)	Professionalism through CDA Certification Preparation	2
ECE	1026 (ECE 126)	CDA Certificate Assessment Association	2

**Total Hours Required for TCC** **19**

\*Criminal record check required.

**CHILD DEVELOPMENT SPECIALIST  
Certificate**

**CDE1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The purpose of this certificate is to provide the necessary skills for entry-level employment in early childhood care and education settings. Students completing the program develop skills in the areas of planning safe and healthy learning environments and advancing children's physical and intellectual development based on principles of child growth and development; students also learn positive ways to support children's social and emotional development; strategies to establish productive relationships with families, strategies to manage an effective program operation, qualities of professionalism, and techniques for observing and recording behavior. Graduates of the program are eligible for entry level employment as in child care centers, group child care programs, and preschool programs, as well as the Georgia Pre-K Program as assistant teachers.

**Curriculum**

**Credits**

**General Core Courses**

ECE	1010 (ECE 101)	Introduction to Early Childhood Care and Education	5
ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	1050 (ECE 105)	Health, Safety and Nutrition	5
ECE	1012 (ECE 112)	Curriculum Development	3
ECE	1021 (ECE 121)	Early Childhood Care and Education Practicum I	3

**Total Hours Required for TCC** **21**

\*Criminal record check required.

**EARLY CHILDHOOD CARE AND EDUCATION EXCEPTIONALITIES  
Certificate**

**ECC1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Exceptionalities technical certificate of credit provides a solid Early Childhood Care and Education foundation of knowledge, skills, attitudes and techniques for individuals who will work with children with special needs. Through the coursework in the program, program graduates will develop competencies in guidelines, information, responsibilities and techniques necessary for successful employment in the exceptional environment. Prospective students must have either post-secondary credentials from an accredited institution, a current Child Development Associate Credential (CDA), or qualifying experience pending approval of the department chair.

**Curriculum**

**Credits**

**General Core Courses**

ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	2010 (ECE 201)	Exceptionalities	5
ECE	2030 (ECE 203)	Human Growth and Development II	5
ECE	2260 (ECE 260)	Characteristics of Young Children with Exceptionalities	5
ECE	2262 (ECE 262)	Classroom Strategies and Intervention	5
ECE	2264 (ECE 264)	Exploring your Role in the Exceptional Environment	5

**Total Hours Required for TCC** **30**

\*Criminal record check required.

**EARLY CHILDHOOD CARE AND EDUCATION  
INFANT/TODDLER CARE SPECIALIST  
Certificate**

**ITC1**

Availability: Paulding Campus

Program Purpose: The purpose of this Technical Certificate is to provide a solid Early Childhood Care and Education foundation of knowledge, skills, and dispositions for individuals who will work with very young children from birth through three years of age. Program graduates will be competent in providing environments, equipment and experiences for infants and toddlers in a variety of early care settings.

**Curriculum**

**Credits**

**General Core Courses**

ECE	1010 (ECE 101)	Introduction to Early Childhood Care and Education	5
ECE	1030 (ECE 103)	Human Growth and Development I	5
ECE	1050 (ECE 105)	Health, Safety and Nutrition	5
ECE	2132 (ECE 132)	Infant/Toddler Development	5
ECE	2134 (ECE 134)	Infant/Toddler Group Care	5

**Total Hours Required for TCC** **25**

\*Criminal record check required.

**EARLY CHILDHOOD CARE AND EDUCATION PROGRAM ADMINISTRATION  
Certificate**

**OG01**

Availability: Paulding Campus

Program Purpose: The purpose of the Early Childhood Program Administration technical certificate of credit is to provide the necessary skills to administer and manage early childhood programs, and to provide a career path for people working in the field who wish to move into administration. All applicants must have postsecondary credentials, a Child Development Associate (CDA) credential, or approval of the department chair.

**Curriculum**

**Credits**

**General Core Courses**

ECE	2170 (ECE 217)	Program Administration	5
ECE	2210 (ECE 221)	Facility Management	5
ECE	2220 (ECE 222)	Personnel Management	5
<b>Total Hours Required for TCC</b>			<b>15</b>

## **ELECTRICAL CONSTRUCTION & MAINTENANCE**

### **ELECTRICAL CONSTRUCTION & MAINTENANCE**

**WO02**

#### **Diploma**

Availability: South Cobb Campus

Program Purpose: The Electrical Construction and Maintenance program is a sequence of courses that prepare students for careers in industry. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of theory and practical application necessary for successful employment. Program graduates will receive an electrical construction and maintenance diploma. Program graduates also qualify to continue toward a diploma in Industrial Electrical Technology.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Electrical Construction and Maintenance Diploma in four quarters.

#### **Curriculum**

#### **Credits**

##### **General Core Courses**

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations & Professional Development	3

##### **Occupational Courses**

IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
ELT	106	Electrical Prints, Schematics, and Symbols	4
ELT	119	Electricity Principles II	4
ELT	120	Residential Wiring I	5
ELT	121	Residential Wiring II	6
ELT	107	Commercial Wiring I	5
ELT	108	Commercial Wiring II	5
ELT	109	Commercial Wiring III	5
ELT	111	Single-phase and Three-phase Motors	5
ELT	112	Variable Speed/Low Voltage Controls	3
ELT	118	Electrical Controls	5
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Technical Electives	3

**Total Hours Required for Diploma**

**72**

**ELECTRICAL SYSTEMS ASSISTANT  
Certificate**

**ELS1**

Availability: South Cobb Campus

Program Purpose: The Introduction to Electrical Systems Technical Certificate will provide students the occupational foundation and basic training needed for the entry-level electrical program. The program will enable graduates to become employed as an entry-level electrical technician.

**Curriculum**

**Credits**

**General Core Courses**

ELT	119	Electricity Principles II	4
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Currents Circuits I	4
MAT	1012 (MAT 101)	Foundations of Math	5

**Total Hours Required for TCC** **15**

## **ELECTRONICS TECHNOLOGY**

### **ELECTRONICS TECHNOLOGY Associate of Applied Science Degree**

**EFA3**

Availability: North Metro Campus

Program Purpose: The purpose of the Electronics Technology Associate of Applied Science degree program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in electronics technology fields. The Associate of Applied Science degree is intended to expand diploma program competencies and the employability and upward mobility of graduates. Specializations include biomedical instrumentation and general electronics.

The associate degree program is intended to produce graduates who are prepared for employment as electronics technicians. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics. In addition, graduates are to be competent in the technical areas of soldering, DC circuits, AC circuits, solid state devices, Linear Integrated Circuits, and microprocessors fundamentals.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the degree program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1105 (ENG 195)	Technical Communications	5
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	5
<u>Or</u>			
PSY	1101 (PSY 191)	Introduction to Psychology	5



**Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
MAT	1112 (MAT 193)	College Trigonometry	
<b>Or</b>			
MAT	1113 (MAT 194)	Precalculus	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
ELC	104	Soldering Technology	2
ELC	108	Direct Current Circuits II	4
ELC	110	Alternating Current II	4
ELC	115	Solid State Devices II	4
ELC	117	Linear Integrated Circuits	4
ELC	118	Digital Electronics I	4
ELC	119	Digital Electronics II	4
ELC	120	Microprocessors Fundamentals	4

**Choose One of the Following Two Specializations:****Biomedical Instrumentation Technology Specialist**

AHS	101	Anatomy and Physiology	5
AHS	109	Medical Terminology – AHS	3
BMI	232	Medical Equipment - Function & Operation I	4
BMI	233	Internship – Medical Systems I	5
BMI	242	Medical Equipment - Function & Operation II	3
BMI	243	Internship – Medical Systems II	5

**General Electronics Technology Specialist**

XXX	xxx	Electives	25
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**Approved Electives:**

ACC	1101 (ACC 101)	Principles of Accounting	6
BMI	232	Medical Equipment – Function & Operation I	5

BMI	242	Medical Equipment - Function & Operation II	5
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	122	Microcomputer Installation and Maintenance	7
CIS	1140	Networking Fundamentals	6
CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
MKT	100	Introduction to Marketing	5
MSD	100	Principles of Management	5
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
ELC	xxx	Any other Electronics Course	
IDS	xxx	Any other Industrial Systems Course	
<b>Total Hours Required for Degree</b>			<b>102</b>

## **ELECTRONICS TECHNOLOGY Diploma**

**EFA4**

Availability: North Metro Campus

Program Purpose: The purpose of the Electronics Technology program is to prepare students for careers in electronics technology professions. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. Program graduates are to be competent in the general areas of communications, mathematics, computer literacy, and interpersonal relations. The program emphasizes a combination of electronics technology theory and practical application necessary for successful employment. Program graduates receive an Electronics Technology Diploma, which qualifies them as electronics technicians with a specialization in Biomedical Instrumentation or General Electronics.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English	5
MAT	1013 (MAT 103)	Algebraic Concepts	5
MAT	1015 (MAT 104)	Geometry and Trigonometry	
<b><u>Or</u></b>			
MAT	1017 (MAT 105)	Trigonometry	5

#### **Occupational Courses**

IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
ELC	104	Soldering Technology	2
ELC	108	Direct Current Circuits II	4
ELC	110	Alternating Current II	4
ELC	115	Solid State Devices II	4
ELC	117	Linear Integrated Circuits	4
ELC	118	Digital Electronics I	4
ELC	119	Digital Electronics II	4
ELC	120	Microprocessors Fundamentals	4

**Choose One of the Following Two Specializations:**

**Biomedical Instrumentation Technology Specialist**

AHS	101	Anatomy and Physiology	5
AHS	109	Medical Terminology – AHS	3
BMI	232	Medical Equipment – Function & Operation I	5
BMI	233	Internship – Medical Systems I	5
BMI	242	Medical Equipment – Function & Operation II	5
BMI	243	Internship – Medical Systems II	5
EMP	1000 (EMP 100)	Interpersonal Relations & Professional Development	3

**General Electronics Technology Specialist**

EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
XXX	xxx	Electives	25

**Approved Electives:**

ACC	1101 (ACC 101)	Principles of Accounting	6
BMI	232	Medical Equipment – Function & Operation I	4
BMI	242	Medical Equipment - Function & Operation II	3
CIS	103	Operating Systems Concepts	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	122	Microcomputer Installation & Maintenance	7
CIS	1140	Networking Fundamentals	6
CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
MKT	100	Introduction to Marketing	5
MSD	100	Principles of Management	5
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
ELC	xxx	Any other Electronics Course	
IDS	xxx	Any other Industrial Systems Course	

**Total Hours Required for Diploma** **90**

## **ELECTRONICS FUNDAMENTALS Diploma**

**EF02**

Availability: North Metro Campus

Program Purpose: The purpose of the Electronics Fundamentals diploma program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of electronics. Graduates obtain a diploma from North Metro Technical College. The diploma program is designed to prepare students for careers in electronics professions where specialty training is provided by the employer. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of electronics theory and practical application necessary for successful employment. Program graduates receive an Electronics Fundamentals diploma, which prepares them for entry-level positions in the electronics field and qualifies them for admission to the Electronics Technology program.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in four quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English I	5
MAT	1013 (MAT 103)	Algebraic Concepts	5
MAT	1015 (MAT 104)	Geometry and Trigonometry	
<b><u>Or</u></b>			
MAT	1017 (MAT 105)	Trigonometry	5

#### **Occupational Courses**

EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
ELC	104	Soldering Technology	2
ELC	108	Direct Current Circuits II	4
ELC	110	Alternating Current II	4
ELC	115	Solid State Devices II	4
ELC	117	Linear Integrated Circuits	4

ELC	118	Digital Electronics I	4
ELC	119	Digital Electronics II	4
ELC	120	Microprocessors Fundamentals	4
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>65</b>

**BASIC ELECTRONICS TECHNICIAN  
Certificate**

**BE01**

Availability: North Metro Campus

Program Purpose: The purpose of this technician certificate program is intended to produce individuals who are prepared for employment as entry level technicians. Program completers will be competent in the occupational areas of problem solving, Ohm's Law, component identification, basic test equipment usage, and basic soldering skills.

**Curriculum**

**Credits**

**General Core Courses**

ELC	104	Soldering Technology	2
ELC	118	Digital Electronics I	4
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
MAT	1012 (MAT 101)	Foundations of Mathematics	5

**Total Hours Required for TCC** **23**

**COMPUTER REPAIR TECHNICIAN  
Certificate**

**CPR1**

Availability: Appalachian Campus

Program Purpose: The Computer Repair Technician certificate provides the fundamental skills of installation and maintenance on personal computers. Students also receive training in preparation for the CompTIA A+ Certification tests.

Admission Requirements:

**Curriculum**

**Credits**

**General Core Courses**

CIS	103	Operating Systems Concepts	
		<b><u>Or</u></b>	
ELC	218	Operating Systems Technologies	6
CIS	122	Microcomputer Installation and Maintenance	
		<b><u>Or</u></b>	
ELC	217	Computer Hardware	7
CIS	286	CompTIA A + Preparation	
		<b><u>Or</u></b>	
ELC	286	CompTIA A+ Certification	7
<b>Total Hours Required for TCC</b>			<b>20</b>



## HOME TECHNOLOGY INTEGRATION SPECIALIST Certificate

HTI1

Availability: Appalachian Campus

Program Purpose: The Home Technology Integration Specialist certificate program provides educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed as a home Technology integration Specialist. This certificate is intended to produce graduates who are prepared to take the CompTIA HTI+ certification exam. Passing this exam recognizes that individuals have attained a level of excellence in the home integration industry.

### Curriculum

### Credits

#### General Core Courses

ELC	260	Telecommunication and Data Cabling	4
ELC	265	Home Automation Systems	7
ELC	266	Security System Installation and Testing	6
ELC	267	Fire Alarm Installation	6
ELC	268	Access Control and CCTV Installation	3
ELC	269	Prep for Low Voltage Licensure	5
ELC	270	HTI+ Certification Preparation	5
IFC	101	Direct Current Circuits	4
IFC	102	Alternating Current I	4
MAT	1012 (MAT 101)	Foundations of Mathematics	5

**Total Hours Required for TCC** **49**

## **ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY**

**ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY**  
**Associate of Applied Science Degree**

**YB03**

**Availability:** South Cobb Campus

**Program Purpose:** The Electronics and Computer Engineering Technology program is a planned sequence of carefully developed college level courses designed to prepare students to work in the field of electronics and computer engineering technology. The program of study emphasizes the application of scientific, mathematic, and engineering knowledge and methods combined with technical skills in support of engineering activities. Program graduates will receive an Electronics and Computer Engineering Technology Associate of Applied Science degree, qualifying them as engineering technicians with a specialization in, biomedical engineering technology or electronics engineering technology.

Accredited by the  
Technology Accreditation Commission for the Accreditation  
Board for Engineering and Technology (TAC of ABET),  
111 Market Place, Suite 1050  
Baltimore, Maryland, 21202  
Telephone (404) 347-7700

**Program Length:** A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Electronics and Computer Engineering in six quarters.

### **Curriculum:**

#### **Area I- English/Humanities/Fine Arts**

ENG 1101 (ENG 191)	Composition and Rhetoric	5
ENG 1102 (ENG 193)	Literature and Composition	5

#### **Area II- Social/Behavioral Sciences**

ENG 1105 (ENG 195)	Technical Communications	5
ECO 1101 (ECO 191)	Principles of Economics	
	<b><u>Or</u></b>	
PSY 1101 (PSY 191)	Introduction to Psychology	
	<b><u>Or</u></b>	
SOC 1101 (SOC 191)	Introduction to Sociology	5

**Area III- Natural Sciences**

MAT 1111 (MAT 191)	College Algebra	5
MAT 1113 (MAT 194)	Precalculus	5
PHY 1111 (PHY 191)	Mechanics	5
PHY 1112 (PHY 192)	Electricity and Magnetism	5

**Core Occupational Courses**

DDF 191	Engineering Graphics	3
EET 101	D.C. Circuit Analysis	5
EET 102	A.C. Circuit Analysis I	5
EET 191	Computer Programming Fundamentals	5
MAT 1131(MAT195)	Differential Calculus	5
PHY 1113 (PHY291)	Fluids, Heat Sound and Light	5

**And students must choose one of the specializations****Electronics Engineering Technology Specialization**

EET 103	A.C. Circuit Analysis II	5
EET 105	Electronic Devices	5
EET 204	Linear Integrated Circuits	5
EET 206	Computer Systems and Applications	5
ICT 201	Electromechanical Devices	5
EET 201	Digital Fundamentals	5
EET 203	Microcomputer Fundamentals	5
XXX xxx	Technical Elective	5

**Biomedical Engineering Technology Specialization**

AHS 101	Anatomy and Physiology	5
BMT 231	Safety in Health Care Facilities	5
BMT 232	Medical Equipment-Function and Operation	5
BMT 233	Internship Medical Systems I	6
BMT 242	Medical Equipment-Function and Operation II	5
BMT 243	Internship Medical Systems II	5
XXX xxx	Electives	9

**Total Hours Required for Degree** **108**

## **EMERGENCY MANAGEMENT**

### **EMERGENCY MANAGEMENT Associate of Applied Science Degree**

**EMY3**

Availability: Marietta Campus

Program Purpose: The associate of applied science degree in Emergency Management is a sequence of courses that prepares students for positions in the emergency management profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. There is a critical and growing need for emergency management personnel in both the public and private sector. Students earning a degree in emergency management will be prepared for employment as an Emergency Management Coordinator for government agencies, private corporations and industry, and education or health care institutions.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Emergency Management in six quarters.

#### **Courses**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature & Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

POL	1101	American Government	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
PSY	1150 (PSY 192)	Industrial/Organizational Psychology	5
HIS	1112	World History II	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
MKT	101	Principles of Management	5
MSD	103	Leadership and Decision Making	5
MSD	114	Organizational Communications and Information Technology	5
EMY	124	Principles of Emergency Management	5
EMY	125	Exercise Design & Evaluation	5
EMY	126	Hazardous Materials Contingency Planning	5
EMY	127	Emergency Planning	5
EMY	128	Developing Community Resources	5
EMY	129	Disaster & Fatalities Response and Recovery	5
EMY	130	Infection Control	5
MSD	156	Supervision in a Service Environment	5
EMY	222	Emergency Management Internship	5
MSD	224	Crisis Reaction and Response	5
EMY	137	Facility Security	5

**Total Hours Required for Degree** **103**

## **EMERGENCY MANAGEMENT Diploma**

**EMY2**

Availability: Marietta Campus

Program Purpose: The Emergency Management diploma is a sequence of courses that provides students an academic foundation in the field of emergency management. There is a critical and growing need for emergency management personnel in both the public and private sector. Students earning a diploma in Emergency Management will have a good academic foundation and be prepared for employment in the emergency management field with the possibility of employment with government agencies, private corporations and industry, and education or health care institutions.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Emergency Management diploma in five quarters.

### **Courses**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
MKT	101	Principles of Management	5
MSD	103	Leadership and Decision Making	5
MSD	114	Organizational Communications and Information Technology	5
EMY	124	Principles of Emergency Management	5
EMY	125	Exercise Design & Evaluation	5
EMY	126	Hazardous Materials Contingency Planning	5
EMY	127	Emergency Planning	5
EMY	128	Developing Community Resources	5
EMY	129	Disaster & Fatalities Response and Recovery	5
EMY	130	Infection Control	5
MSD	156	Supervision in a Service Environment	5
EMY	222	Emergency Management Internship	5
MSD	224	Crisis Reaction and Response	5
EMY	137	Facility Security	5

**Total Hours Required for Diploma**

**86**

## **EMERGENCY MEDICAL TECHNICIAN**

### **EMT Intermediate Certificate**

**EM01**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: This program covers both the U.S. Department of Transportation 1985 Emergency Medical Technician-Intermediate Curriculum and the 1994 Emergency Medical Technician-Basic Curriculum. The EMT-Intermediate Program is designed to provide additional training and increased knowledge and skills in specific aspects of advanced life support about the basic level. Successful completion of the program allows the graduate to take the National Registry of Emergency Medical Technicians EMT-Intermediate/85 certification examination and receive Georgia licensure as an EMT-intermediate. Upon completion of EMS 1115, students would be eligible to sit for the National Registry of EMTs EMT-Basic Exam.

#### Additional Admission Requirements:

Admission procedure: Submit a completed specific EMS admission packet in addition to regularly prescribed Chattahoochee Technical College admissions application procedures on or before established Chattahoochee Technical College deadlines. Students are accepted on the basis of course and space availability.

Tuition and Fees: Please see Tuition and Fees section of the catalog for program specific tuition costs. Additional fees associated with this program may be assessed.

### **Curriculum**

### **Credits**

#### **General Core Courses**

EMS	1101	Introduction to the EMT Profession	4
EMS	1103	Patient Assessment for the EMT	2
EMS	1105	Airway Management for the EMT	2
EMS	1107	Medical and Behavioral Emergencies for the EMT	3
EMS	1109	Assessment and Management Across the Lifespan for the EMT	2
EMS	1111	Trauma Emergencies and WMD Response	4
EMS	1113	Clinical Applications for the EMT Basic	1
EMS	1115	Practical Applications for the EMT-Basic	2
EMS	1201	Pharmacology and Shock/Trauma for the EMT-Intermediate	3
EMS	1203	Clinical Applications for the EMT-Intermediate I	1
EMS	1205	Clinical Applications for the EMT-Intermediate II	1
EMS	1207	Practical Applications for the EMT-Intermediate	2

**Total Hours Required for TCC**

**27**

## **ENVIRONMENTAL HORTICULTURE**

### **ENVIRONMENTAL HORTICULTURE Associate of Applied Science Degree**

**EHO3**

Availability: Multiple campus availability – check with the Admissions office

Program Purposes: The Environmental Horticulture program is a sequence of courses that prepares students for careers in environmental horticulture. The program provides learning opportunities which introduce, develop, and reinforce academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skills. Graduates of the program receive an Environmental Horticulture Associate of Applied Science degree which qualifies them as a horticulturist.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Environmental Horticulture in six quarters.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
ECO	1101 (ECO 191)	Principles of Economics	5
ENG	1105 (ENG 195)	Technical Communications	
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
PHY	1111 (PHY 191)	Mechanics	5



\*A student may be allowed (with advisors approval) to take BIO 1111 or to transfer in the equivalent of BIO 1111 or CHM 193 as a substitute for PHY 1111

\*\*PHY 1111 requires MAT 1113 as a pre-requisite. MAT 1113 will be used as one of your specialization electives to complete this pre-requisite.

### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
EHO	100	Horticulture Science	5
EHO	101	Woody Ornamental Plant Identification	6
EHO	102	Herbaceous Plant Identification	5
EHO	108	Pest Management	5
EHO	115	Environmental Horticulture Internship	3
EHO	169	Horticulture Spanish	5
EHO	xxx	Horticulture Electives	33
<b>Total Hours Required for Degree</b>			<b>95</b>

## **ENVIRONMENTAL HORTICULTURE Diploma**

**EHO2**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Environmental Horticulture program is a sequence of courses that prepares students for careers in environmental horticulture. The program provides learning opportunities which introduce, develop, and reinforce academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skills. Graduates of the program receive an Environmental Horticulture diploma which qualifies them as a horticulturist.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Environmental Horticulture Diploma in four quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
EHO	100	Horticulture Science	5
EHO	101	Woody Ornamental Plant Identification	6
EHO	102	Herbaceous Plant Identification	5
EHO	108	Pest Management	5
EHO	115	Environmental Horticulture Internship	3
EHO	169	Horticulture Spanish	5
EHO	xxx	Horticulture Electives	33

<b>Total Hours Required for Diploma</b>	<b>78</b>
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**LANDSCAPE DESIGN TECHNICIAN  
Certificate**

**5AG1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The purpose of the Landscape Design Technician technical certificate of credit is to provide entry-level skills in landscape design and garden design. Topics include: plant identification, landscape design, garden design, planting design, and computer aided landscape design skills.

**Curriculum**

**Credits**

**General Core Courses**

EHO	101	Woody Ornamental Plant Identification	6
EHO	102	Herbaceous Plant Identification	5
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	115	Environmental Horticulture Internship	3
EHO	143	Garden Design	5
EHO	156	Computer-Aided Landscape Design	3
EHO	163	Planting Design	5
<b>Total Hours Required for TCC</b>			<b>35</b>

**LANDSCAPE SPECIALIST  
Certificate**

**5AE1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The purpose of the Landscape Specialist technical certificate of credit is to provide entry-level skills in landscape design and installation. Topics include: horticulture science, plant identification, landscape design and installation skills.

**Curriculum**

**Credits**

**General Core Courses**

EHO	100	Horticulture Science	5
EHO	101	Woody Ornamental Plant Identification	6
EHO	107	Landscape Installation	3
EHO	108	Pest Management	5
EHO	112	Landscape Management	5
XXX	xxx	Electives	5

**Approved Electives:**

EHO    xxx  
LER    xxx

**Total Hours Required for TCC**

**29**

**LAWN EQUIPMENT AND SMALL ENGINE REPAIR  
Certificate**

**LSB1**

Availability: North Metro Campus

Program Purpose: The Lawn Equipment and Small Engine Repair TCC program is designed to offer students basic skills in the repair and maintenance of lawn and small engine equipment. Additionally, students will learn how to repair blowers, weed eaters, hedgers, and other lawn equipment. Students completing this certificate program are prepared for entry level employment with professional lawn care, golf course maintenance, landscaping, and small engine repair industries.

**Curriculum**

**Credits**

**General Core Courses**

LER	100	4-Cycle Engines	5
LER	105	Transaxle Repair	5
LER	110	General Lawnmower Repair	3
LER	115	2-Cycle Engine Equipment Repair	3

**Total Hours Required for TCC** **16**

**SUSTAINABLE URBAN HORTICULTURE TECHNICIAN  
Certificate**

**SUH1**

Availability: Multiple campus availability – check with the Admissions office.

Program Purpose: The Sustainable Urban Horticulture certificate program is designed to provide students with cutting edge opportunities in the area of green technologies. Topics will include greenroofs, xeriscaping, rain gardens, LEED, and other new emerging technologies with the green industry.

**Curriculum**

**Credits**

**General Core Courses**

EHO	101	Woody Ornamental Plant Identification	6
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	112	Landscape Management	5
EHO	141	Soils	5
EHO	180	GreenRoofs: Design, Build and Maintain	6
EHO	181	Urban Landscape Issues	6

**Total Hours Required for TCC** **36**

## **FIRE SCIENCE TECHNOLOGY**

### **FIRE SCIENCE**

**FSN3**

#### **Associate of Applied Science Degree**

Availability: Marietta Campus

Program Purpose: The associate of applied science degree in Fire Science is a sequence of courses that prepares students to gain the knowledge necessary to seek advancement in the field of professional Fire Fighting. This degree program will provide fire fighting professionals with the necessary knowledge to advance in their field and hold positions of greater leadership and responsibility.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Fire Science in six quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Public Speaking	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
SOC	1101 (SOC 191)	Introduction to Sociology	5

#### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
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#### **General Core Elective**

XXX	xxx	General Core College Level Elective	5
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### Occupational Courses

SCT	100	Introduction to Microcomputers	3
FSC	101	Introduction to Fire Science	5
FSC	110	Fire Science Supervision and Leadership	5
FSC	121	Fire Fighting Strategy and Tactics	5
FSC	132	Fire Science Instructor	5
FSC	141	Hazardous Materials	5
FSC	151	Fire Prevention and Inspection	5
FSC	161	Fire Service Safety and Loss Control	5
FSC	201	Fire Science Management	5
FSC	210	Fire Service Hydraulics	5
FSC	220	Fire Protection Systems	5
FSC	230	Fire Service Building Construction	5
FSC	241	Incident Command	5
FSC	270	Fire Investigation	5
XXX	xxx	Occupational related electives*	5

\*Occupational related electives may include any of the courses from the following program disciplines: CRJ, HLS, EMY, or FSC.

**Total Hours Required for Degree** **103**



**FIRE SCIENCE  
Diploma****FSN2**

Availability: Marietta Campus

Program Purpose: The Fire Science diploma is a sequence of courses that prepares students to gain the knowledge necessary to seek knowledge and/or employment in the field of professional Fire Fighting. This diploma program will provide students and/or fire fighters with the academic foundation to progress in their field and hold positions of leadership and responsibility.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Fire Science Diploma in six quarters.

**Curriculum****Credits****General Core Courses**

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
FSC	101	Introduction to Fire Science	5
FSC	110	Fire Science Supervision and Leadership	5
FSC	121	Fire Fighting Strategy and Tactics	5
FSC	132	Fire Science Instructor	5
FSC	141	Hazardous Materials	5
FSC	151	Fire Prevention and Inspection	5
FSC	161	Fire Service Safety and Loss Control	5
FSC	201	Fire Science Management	5
FSC	210	Fire Service Hydraulics	5
FSC	220	Fire Protection Systems	5
FSC	230	Fire Service Building Construction	5
FSC	241	Incident Command	5
FSC	270	Fire Investigation	5
XXX	xxx	Occupational related electives*	3

\*Occupational related electives may include any of the courses from the following program disciplines: CRJ, HLS, EMY, or FSC.

**Total Hours Required for Diploma****84**

## **HEALTHCARE ASSISTANT**

### **ELDERCARE TECHNICIAN Certificate**

**EDC1**

Availability: North Metro Campus

Program Purpose: The Elder Care Assistant Technical certificate program will provide students with the basic knowledge and skills needed to obtain employment as a CNA in nursing homes, elder personal care homes, and home healthcare agencies. The certificate emphasizes geriatric patient care, CPR, and first aid. Students successfully completing the certificate are eligible to be placed on the State Registry for certified nursing assistants.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	General Mathematics	5
PSY	1010 (PSY 101)	Basic Psychology	5
AHS	101	Anatomy and Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Sciences	3
GRN	100	Understanding the Client	3
GRN	103	Geriatric Nutrition	2
GRN	105	Principles of Home Health Care	5
CNA	100	Patient Care Fundamentals	8

**Total Hours Required for TCC** **44**

**HEALTHCARE ASSISTANT  
Certificate****5CJ1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Healthcare Assistant technical certificate of credit is designed for students preparing to enter Allied Health programs, such as Practical Nursing, Medical Laboratory Technology, Surgical Technology and Medical Assisting.

**Curriculum****Credits****General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English I	
		<b><u>Or</u></b>	
ENG	1101 (ENG 191)	Composition and Rhetoric**	5
MAT	1012 (MAT 101)	Foundations of Mathematics	
		<b><u>Or</u></b>	
MAT	1013 (MAT 103)	Algebraic Concepts	
		<b><u>Or</u></b>	
MAT	1101 (MAT 190)	Mathematical Modeling*	
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra*	5
PSY	1010 (PSY 101)	Basic Psychology	
		<b><u>Or</u></b>	
PSY	1101 (PSY 191)	Introduction to Psychology*	5
SCT	100	Introduction to Microcomputers	3
AHS	101	Anatomy and Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Science	3

\*Degree level courses require higher placement test scores

\*\*The Practical Nursing programs require ENG 1101

**Take one of the following options:**

<b>Option I</b>	<b>Certified Nurse Assistant – North Metro, Marietta campus</b>		
CNA	100	Patient Care Fundamentals	8
BUS	1100	Introduction to Keyboarding	3

<b>Option II</b>		<b>Medical Coding – Appalachian, North Metro</b>	
MAS	151	Medical Procedures Coding	3
MAS	152	Medical Procedures Coding II	3
MAS	153	Physician’s Procedural Coding	3
MAS	112	Human Diseases	5
<b>Option III</b>		<b>Patient Care Technician – North Metro</b>	
PCT	106	Patient Care Technician I	7
PCT	110	Patient Care Technician II	7
PCT	115	Patient Care Practicum	2
<b>Total Hours Required for TCC</b>			<b>40-45</b>

## **HEALTHCARE SCIENCE**

### **HEALTH STUDIES Degree**

**AHN3**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: A student who receives the Associate of Applied Science Degree – Health Studies must have graduated from or be eligible to graduate from a diploma program in a field appropriate to the degree area. The AAS program requires a minimum of 90 quarter credit hours, to include a minimum of 30 credits in general education and 60 credits in occupational preparation as specified below.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the degree program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
HUM	1101 (HUM 191)	Introduction to Humanities	
<b><u>Or</u></b>			
ENG	1102 (ENG 193)	Literature and Composition	5

#### **Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Fundamentals of Speech	
<b><u>Or</u></b>			
ENG	1105 (ENG 195)	Technical Communications	5
ECO	1101 (ECO 191)	Principles of Economics	
<b><u>Or</u></b>			
PSY	1101 (PSY 191)	Introduction to Psychology	5

#### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Math Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**General Core Elective**

XXX	xxx	Degree Level General Core Elective(s)	5
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**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
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XXX	xxx	Completion of Required Courses for Diploma	57
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<b>Total Hours Required for Degree</b>			<b>90</b>
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## HEALTHCARE SCIENCE Certificate

HHS1

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Healthcare Science program is a certificate program designed to allow students to take degree level prerequisites for the Associate Degree in Nursing, Physical Therapist Assistant, Radiography, and Clinical Laboratory Technologist programs.

Students seeking admission to the Practical Nursing programs that want to take degree level prerequisites may also enroll in this program.

### Curriculum

### Credits

#### General Core Courses

ENG	1101 (ENG 191)	Composition and Rhetoric	5
MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5
<i>Consult the College catalog to determine the appropriate Math for your intended program of study.</i>			
PSY	1101 (PSY 191)	Introduction to Psychology	5
HUM	1101 (HUM 191)	Introduction to Humanities	
<b><u>Or</u></b>			
ENG	1102 (ENG 193)	Literature & Composition	5
SPC	1101 (SPC 191)	Public Speaking	
<b><u>Or</u></b>			
ENG	1105 (ENG 195)	Technical Communications	5
SCT	100	Introduction to Microcomputers	3

#### Sciences Courses 10-20 Hours

BIO	2113 (BIO 193)	Anatomy and Physiology I	5
BIO	2114 (BIO 194)	Anatomy and Physiology II	5
BIO	2117 (BIO 197)	Introductory Microbiology	5
CHM	1111 (CHM 191)	Chemistry I	5
CHM	1112 (CHM 192)	Chemistry II	5
PHY	1110 (PHY 190)	Introductory Physics	5

**Occupational Courses 10-20 Hours**

AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology	3
PSY	2103 (PSY 291)	Human Development	5
SOC	1101 (SOC 191)	Introduction to Sociology	5

**Total Hours Required for TCC** **48-58**



## **HOMELAND SECURITY**

### **HOMELAND SECURITY Associate of Applied Science Degree**

**HLS3**

Availability: Marietta Campus

Program Purpose: The associate of applied science degree in Homeland Security is a sequence of courses that prepares students to gain the knowledge necessary to seek employment in the fast paced and growing field of Homeland Security. This degree program will provide students with the knowledge to gain employment in the Homeland Security arena with such agencies as; Defense Corporations, hospitals, the aviation industry as well as with local and state agencies and in both the private and government sector.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Homeland Security in six quarters.

#### **Courses**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric I	5
ENG	1102 (ENG 193)	Literature & Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

POL	1101	American Government	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
PSY	1150 (PSY 192)	Industrial/Organizational Psychology	5
HIS	1112	World History II	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
HLS	100	Introduction to Homeland Security	5
HLS	104	Incident Command & Communications	3
HLS	106	Domestic Terrorism	5
EMY	124	Principles of Emergency Management	5
EMY	125	Exercise Design & Evaluation	5
EMY	129	Disaster & Fatalities Response and Recovery	5
HLS	200	The Patriot Act and Other Legal Issues	5
HLS	202	International Terrorism Investigations	5
HLS	205	Weapons of Mass Destruction	5
HLS	208	Homeland Security Intelligence and Information Systems	5
HLS	209	Homeland Security Internship	5

**General Electives**

XXX	xxx	Any course within the following program disciplines: CRJ, FSC, EMY	5
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**Total Hours Required for Degree** **91**

## **HOMELAND SECURITY Diploma**

**HLS2**

Availability: Marietta Campus

Program Purpose: The diploma in Homeland Security is a sequence of courses that prepares students to gain the knowledge necessary to seek employment in the fast paced and growing field of Homeland Security. This diploma program will provide students with the foundation to gain employment in the Homeland Security arena with such agencies as: Defense Corporations, hospitals, the aviation industry as well as with local and state agencies, and in both the private and government sector.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Homeland Security diploma in five quarters.

### **Courses**

### **Credits**

#### **General Core Courses**

ENG	1101 (ENG 101)	Composition and Rhetoric 1	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
HLS	100	Introduction to Homeland Security	5
HLS	104	Incident Command & Communications	3
HLS	106	Domestic Terrorism	5
EMY	124	Principles of Emergency Management	5
EMY	125	Exercise Design & Evaluation	5
EMY	129	Disaster & Fatalities Response and Recovery	5
HLS	200	The Patriot Act and Other Legal Issues	5
HLS	202	International Terrorism Investigations	5
HLS	205	Weapons of Mass Destruction	5
HLS	208	Homeland Security Intelligence and Information Systems	5
HLS	209	Homeland Security Internship	5

**Total Hours Required for Diploma** **69**

## **INDUSTRIAL ELECTRICAL TECHNOLOGY**

### **INDUSTRIAL ELECTRICAL TECHNOLOGY Diploma**

**IEA2**

Availability: South Cobb Campus

Program Purpose: The Industrial Electrical Technology program is a sequence of courses designed to prepare students for careers in industry. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of theory and practical application necessary for successful employment. Program graduates received an Industrial Electrical Technology diploma.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Industrial Electrical Technology Diploma in five quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
ELT	106	Electrical Prints, Schematics, and Symbols	3
ELT	107	Commercial Wiring I	5
ELT	108	Commercial Wiring II	5
ELT	109	Commercial Wiring III	5
ELT	111	Single-Phase and Three-Phase Motors	5
ELT	112	Variable Speed/Low Voltage Controls	3
ELT	116	Transformers	4
ELT	117	National Electrical Code Industrial Applications	4
ELT	118	Electrical Controls	5
ELT	119	Electricity Principles II	4
ELT	120	Residential Wiring I	5
ELT	121	Residential Wiring II	6
ELT	122	Industrial Programmable Logic Control I, II	6

SCT	100	Introduction to Microcomputers	3
XXX	xxx	Technical Electives	5
<b>Total Hours Required for Diploma</b>			<b>87</b>

**INDUSTRIAL MOTOR CONTROL SPECIALIST  
Certificate**

**INR1**

Availability: South Cobb Campus

Program Purpose: The Industrial Motor Control Technical Certificate will provide the occupational foundation and training needed for students currently working in the industry.

**Courses**

**Credits**

**General Core Courses**

ELT	111	Single-Phase and Three-Phase Motors	5
ELT	112	Variable Speed/Low Voltage Controls	3
ELT	116	Transformers	4
ELT	122	Industrial Programmable Logic Control I, II	6

**Total Hours Required for TCC** **18**

## **INDUSTRIAL SYSTEMS TECHNOLOGY**

### **INDUSTRIAL SYSTEMS TECHNOLOGY Associate of Applied Science Degree**

**ICS3**

Availability: North Metro Campus

Program Purpose: The purpose of the Industrial Systems Technology Associate of Applied Science degree program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of industrial systems technology.

The associate degree program is designed for the student who wishes to prepare for a career as an Industrial Systems technician/ electrician. The program provides learning opportunities that introduce, develop, and reinforce academic and technical knowledge, skill, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skill. The Degree program teaches skills in Industrial Systems Technology providing background skills in several areas of industrial maintenance including electronics, industrial wiring, motors, controls, plc's, instrumentation, fluidpower, mechanical, pumps and piping, and computers. Graduates of the program receive an Industrial Systems technology Degree that qualifies them for employment as industrial electricians or industrial systems technicians.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the degree program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
SPC	1101 (SPC 191)	Public Speaking	5
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	
		<u>Or</u>	
PSY	1101 (PSY 191)	Introduction to Psychology	
		<u>Or</u>	

SOC	1101 (SOC 191)	Introduction to Sociology	5
<b>Area III – Natural Sciences/Mathematics</b>			

MAT	1111 (MAT 191)	College Algebra	5
MAT	1113 (MAT 194)	Precalculus	

**Or**

PHY	1110 (PHY 190)	Introductory Physics	5
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**Occupational Courses**

IDS	101	Industrial Computer Applications	
<b><u>Or</u></b>			
IDS	107	Basic Mechanics	5
IDS	103	Industrial Wiring	6
IDS	105	DC and AC Motors	3
IDS	110	Fundamentals of Motor Controls	3
IDS	113	Magnetic Starters and Braking	3
IDS	115	Two-Wire Control Circuits	2
IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLC's	6
IDS	142	Industrial PLC's II	6
IDS	209	Industrial Instrumentation	6
IDS	215	Industrial Mechanics	6
IDS	221	Industrial Fluidpower	7
IDS	231	Pumps and Piping Systems	2
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
SCT	100	Introduction to Microcomputers	3

<b>Total Hours Required for Degree</b>			<b>107</b>
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## **ELECTRICAL CONTROL SYSTEMS Diploma**

**ECS2**

Availability: North Metro Campus

Program Purpose: The purpose of the Electrical Control Systems diploma program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of electrical control systems. Learning opportunities develop academic and professional knowledge, along with skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in PLCs, electrical controls, and instrumentation. Graduates of the program receive an Electrical Control Systems diploma that qualifies them for employment as industrial electricians or industrial control technicians.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in five quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101, 111)	Fundamentals of English I	5
MAT	1013 (MAT 103)	Algebraic Concepts	5
EMP	1000 (EMP 100)	Interpersonal Relations & Professional Development	3

#### **Occupational Courses**

IDS	101	Industrial Computer Applications	5
IDS	103	Industrial Wiring	6
IDS	105	DC and AC Motors	3
IDS	110	Fundamentals of Motor Controls	3
IDS	113	Magnetic Starters and Braking	3
IDS	115	Two-Wire Control Circuits	2
IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLC's	6
IDS	142	Industrial PLC's II	6
IDS	209	Industrial Instrumentation	6
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4

IFC	103	Solid State Devices I	4
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Elective	3
<b>Total Hours Required for Diploma</b>			<b>78</b>

## INDUSTRIAL SYSTEMS TECHNOLOGY Diploma

ICS4

Availability: North Metro Campus

Program Purpose: The purpose of the Industrial Systems Technology diploma program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of industrial systems technology.

The diploma program is designed for the student who wishes to prepare for a career as an Industrial Systems technician/ electrician. The program provides learning opportunities that introduce, develop and reinforce academic and technical knowledge, skill, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skill. The diploma program teaches skills in Industrial Systems Technology providing background skills in several areas of industrial maintenance including electronics, industrial wiring, motors, controls, PLCs, instrumentation, fluidpower, mechanical, pumps and piping, and computers. Graduates of the program receive an Industrial Systems Technology diploma that qualifies them for employment as industrial electricians or industrial systems technicians or I and E technicians.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### Curriculum

### Credits

#### General Core Courses

ENG	1010 (ENG 101, 111)	Fundamentals of English I	5
MAT	1013 (MAT 103)	Algebraic Concepts	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### Occupational Courses

IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
IDS	101	Industrial Computer Applications	
<b><u>Or</u></b>			
IDS	107	Basic Mechanics	5
IDS	103	Industrial Wiring	6

IDS	105	DC and AC Motors	3
IDS	110	Fundamentals of Motor Controls	3
IDS	113	Magnetic Starters and Braking	3
IDS	115	Two-Wire Control Circuits	2
IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLC's	6
IDS	142	Industrial PLC's II	6
IDS	209	Industrial Instrumentation	6
IDS	215	Industrial Mechanics	6
IDS	221	Industrial Fluidpower	7
IDS	231	Pumps and Piping Systems	2
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>90</b>

**INDUSTRIAL ELECTRICIAN  
Certificate**

**ISB1**

Availability: North Metro Campus

Program Purpose: The Industrial Electrician certificate is designed to prepare students for employment using basic electrical maintenance skills. This program will provide knowledge, understanding, and skills in the occupational areas of industrial safety, direct current circuits, alternating current circuits, and industrial wiring.

**Curriculum**

**Credits**

**General Core Courses**

IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IDS	103	Industrial Wiring	6
<b>Total Hours Required for TCC</b>			<b>16</b>

**NON-DESTRUCTIVE TESTING TECHNICIAN  
Certificate**

**NND1**

Availability: North Metro Campus

Program Purpose: The Nondestructive Testing certificate program is designed to offer students the skills necessary to obtain Level I and Level II certification as a nondestructive testing technician. Students will learn the five major techniques of testing including magnetic particle inspection, liquid penetrant inspection, radiographic inspection, eddy current inspection, and ultrasonic inspection. Students completing this certificate program are prepared for entry level employment as a nondestructive testing technician.

**Curriculum**

**Credits**

**General Core Courses**

IFC	100	Industrial Safety Procedures	2
NDT	102	Visual Inspection	3
NDT	104	Eddy Current Inspection	4
NDT	106	Liquid Penetrant Inspection	3
NDT	108	Magnetic Particle Inspection	3
NDT	109	Radiation Safety	4
NDT	110	Radiographic Inspection I	4
NDT	111	Radiographic Inspection II	4
NDT	112	Ultrasonic Inspection I	4
NDT	113	Ultrasonic Inspection II	4
<b>Total Hours Required for TCC</b>			<b>35</b>

**PROCESS CONTROL TECHNICIAN I  
Certificate**

**PSC1**

Availability: North Metro Campus

Program Purpose: The Process Control Technician I certificate is designed to prepare students for employment in today's industrial setting. This program provides learning opportunities in the following areas: advanced motor control, variable speed motor control, basic industrial PLCs, and industrial fluid power.

**Curriculum**

**Credits**

**General Core Courses**

IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLC's	6
IDS	221	Industrial Fluidpower	7

**Total Hours Required for TCC** **18**

## **INTERIORS**

### **INTERIORS Degree**

**IT03**

Availability: Appalachian Campus

Program Purpose: The Interiors program is designed to prepare students for employment in a variety of positions in today's interior field. The Interiors program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The knowledge and skills emphasized in this program include nontextile and textile use; codes, building systems; basic print reading; use of computers in drafting; communication with architects, contractors, and clients; historical perspective of architecture; interior design fundamentals; selection and use of furniture and interior finishes; and client presentations and business principles. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of interiors. Requires core classes that give students a well-balanced foundation of English and math and allow students to expand their knowledge of humanities, literature, and art. Electives allow the student to specialize according to career goals. Career Information: The Interiors program of study provides opportunities for graduates as In-store designers for furniture and home-furnishing stores, building material and supplies dealers, residential building construction companies, and free lance work.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Interiors in eight quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric I	5
ENG	1102 (ENG 193)	Literature and Composition	
<u><b>Or</b></u>			
HUM	1101 (HUM 191)	Introduction to Humanities	5
<u><b>Or</b></u>			
ART	1101 (ART 191)	Art Appreciation	5

#### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	5
SPC	1101 (SCP 191)	Public Speaking	5



SOC	1101 (SOC 191)	Introduction to Sociology	
		<b><u>Or</u></b>	
PSY	1101 (PSY 191)	Introduction to Psychology	5

### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	
		<b><u>Or</u></b>	
MAT	1100 (MAT 196)	Quantitative Skills & Reasoning	
		<b><u>Or</u></b>	
MAT	1101 (MAT 190)	Mathematical Modeling	5

### **Occupational Courses**

INT	100	Interior Design Fundamentals	5
INT	105	Print Reading for Interiors	2
INT	106	Building and Technical Services for Interiors	2
INT	107	Lighting Technology for Interiors	2
INT	108	Color Theory	2
INT	110	Materials and Resources I	4
INT	111	Materials and Resources II	4
INT	115	Introduction to Drawing for Interior Designers	3
INT	116	CAD Fundamentals for Interior Design	3
INT	118	History of Interiors and Architecture I	5
INT	119	History of Interiors and Architecture II	5
INT	140	Interiors Seminar	3
INT	142	Interiors Internship I	4
INT	143	Interiors Internship II	4
INT	210	Design Studio I	4
INT	211	Design Studio II	3
INT	212	Design Studio III	3
INT	220	Business Practices for Design Professionals	8
INT	xxx	Essential Electives*	10
SCT	100	Introduction to Microcomputers	3

\*Select 10 hours from the approved elective list below:

ACC	1101 (ACC 101)	Principles of Accounting I	6
DDF	101	Introduction to Drafting	6
EHO	172	Floral Design I	4
FSM	101	Fashion Fundamentals	5
INT	150	Painted and Faux Finishes I	6

INT	151	Painted and Faux Finishes II	6
MKT	100	Introduction to Marketing	5
MKT	101	Principles of Management	5
MKT	109	Visual Merchandising	4
<b>Total Hours Required for Diploma</b>			<b>109</b>

## INTERIORS Diploma

IT02

Availability: Appalachian Campus

Program Purpose: The Interiors program is designed to prepare students for employment in a variety of positions in today's interior field. The Interiors program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The knowledge and skills emphasized in this program include nontextile and textile use; codes, building systems; basic print reading; use of computers in drafting; communication with architects, contractors, and clients; historical perspective of architecture; interior design fundamentals; selection and use of furniture and interior finishes; and client presentations and business principles. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of interiors. Requires core classes that give students a well-balanced foundation of English and math and allow students to expand their knowledge of humanities, literature, and art. Graduates of the program receive an Interiors diploma. Career Information: The Interiors program of study provides opportunities for graduates as In-store designers for furniture and home-furnishing stores, building material and supplies dealers, residential building construction companies, and free lance work.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Interiors Diploma in six quarters.

### Curriculum

### Credits

#### General Core Courses

EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
ENG	1010 (ENG 111)	Business English	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5

#### Occupational Courses

INT	100	Interior Design Fundamentals	5
INT	105	Print Reading for Interiors	2
INT	106	Building and Technical Services for Interiors	2
INT	107	Lighting Technology for Interiors	2
INT	108	Color Theory	2
INT	110	Materials and Resources I	4
INT	111	Materials and Resources II	4
INT	115	Introduction to Drawing for Interior Designers	3
INT	116	CAD Fundamentals for Interior Design	3

INT	118	History of Interiors and Architecture I	5
INT	119	History of Interiors and Architecture II	5
INT	140	Interiors Seminar	3
INT	142	Interiors Internship I	4
INT	143	Interiors Internship II	4
INT	210	Design Studio I	4
INT	211	Design Studio II	3
INT	212	Design Studio III	3
INT	220	Business Practices for Design Professionals	8
SCT	100	Introduction to Microcomputers	3
<b>Total Hours Required for Diploma</b>			<b>82</b>

**INTERIOR DESIGN SPECIALIST  
Certificate**

**IDG1**

Availability: Appalachian Campus

Program Purpose: The Interior Design Specialist Technical Certificate of Credit is designed to meet the needs of the student who is interested in attaining entry-level knowledge and skills necessary to work in the field of Interior Design. This Certificate will enable students to seek work in the field of Interior Design, while continuing to work towards a diploma or associate degree.

**Curriculum**

**Credits**

**General Core Courses**

INT	100	Interior Design Fundamentals	5
INT	102	Furniture and Accessories I	5
INT	108	Color Theory	2
INT	110	Materials and Resources I	4
SCT	100	Introduction to Microcomputers	3

**Total Hours Required for Diploma** **19**

## **MANAGEMENT & SUPERVISORY DEVELOPMENT**

### **MANAGEMENT & SUPERVISORY DEVELOPMENT Associate of Applied Science Degree**

**MS03**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Management and Supervisory Development associate degree program prepares experienced workers for entry into management or supervisory occupations in a variety of businesses and industries. The Management and Supervisory Development associate degree program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention and advancement. Program graduates who are experienced workers are prepared to perform management and supervisory functions such as employee training, labor relations, employee evaluation, and employee counseling and disciplinary action. Graduates of the program receive a Management and Supervisory Development Associate of Applied Science degree with a general management specialization.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Management and Supervisory Development in five quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	
<b><u>Or</u></b>			
ECO	2106 (ECO 193)	Principles of Microeconomics	
<b><u>Or</u></b>			
ECO	2105 (ECO 192)	Principles of Macroeconomics	5
PSY	1101 (PSY 191)	Introduction to Psychology	5
SPC	1101 (SCP 191)	Public Speaking	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra	
		<b><u>Or</u></b>	
MAT	1100 (MAT 196)	Quantitative Skills and Reasoning	5

**Occupational Courses**

MSD	109	Managerial Accounting & Finance	
		<b><u>Or</u></b>	
ACC	1101 (ACC 101)	Principles of Accounting I	6
MSD	100	Principles of Management	
		<b><u>Or</u></b>	
MKT	101	Principles of Management	5
MSD	102	Employment Law	
		<b><u>Or</u></b>	
MKT	103	Business Law	5
MSD	101	Organizational Behavior	5
MSD	103	Leadership	5
MSD	104	Human Resources Management	5
MSD	106	Performance Management	5
MSD	113	Business Ethics	5
MSD	114	Organizational Communications and Informational Tech.	5
MSD	210	Team Project	5
MSD	220	Management Occupation Based Instruction I	3
SCT	100	Introduction to Microcomputers	3

**General Management Specialization**

MSD	xxx	Electives	15
XXX	xxx	Electives	5

**Total Hours Required for Degree** **107**

**MANAGEMENT & SUPERVISORY DEVELOPMENT  
Diploma**

**MS02**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Management and Supervisory Development program prepares experienced workers entry into management or supervisory occupations in a variety of businesses and industries. The Management and Supervisory Development program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Graduates of the program receive a Management and Supervisory Development diploma.

Program Length: A full-time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Management and Supervisory Development Diploma in four quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

MKT	101	Principles of Management	
		<b><u>Or</u></b>	
MSD	100	Principles of Management	5
MSD	101	Organizational Behavior	5
MSD	109	Managerial Accounting & Finance	
		<b><u>Or</u></b>	
ACC	1101 (ACC 101)	Principles of Accounting I	5
MSD	102	Employment Law	
		<b><u>Or</u></b>	
MKT	103	Business Law	5
MSD	104	Human Resources Management	5
MSD	103	Leadership	5
MSD	106	Performance Management	5
MSD	210	Team Project	5
MSD	112	Introduction to Business & Economics	
		<b><u>Or</u></b>	



MKT	104	Principles of Economics	5
MSD	113	Business Ethics	5
MSD	114	Management Communication Technologies	5
MSD	220	Management Occupation-Based Instruction I	3
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Electives (area of concentration)	10
<b>Total Hours Required for Diploma</b>			<b>89</b>

**EMPLOYEE RELATIONS SPECIALIST  
Certificate**

**ERS1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Employee Relations Certificate program prepares experienced workers for entry into human resources management occupations in a variety of businesses and industries. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Program graduates receive an Employee Relations Specialist Certificate.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Fundamentals of English I	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
MSD	101	Organizational Behavior	5
MSD	102	Employment Law	5
MSD	104	Human Resource Management	5
MSD	105	Labor Management Relations	5

**Total Hours Required for TCC** **28**

**TECHNICAL MANAGEMENT SPECIALIST  
Certificate**

**5CA1**

Availability: North Metro Campus

Program Purpose: The purpose of the Technical Management Specialist certificate program is designed to allow integration of management knowledge and other areas of technical training.

**Curriculum**

**Credits**

**General Core Courses**

MSD	100	Principles of Management	
		<b><u>Or</u></b>	
MKT	101	Principles of Management	5
MSD	102	Employment Law	
		<b><u>Or</u></b>	
MKT	103	Business Law	
		<b><u>Or</u></b>	
MSD	105	Labor Management Relations	5
MSD	104	Human Resources Management	5
SCT	100	Introduction to Microcomputers	3
MSD	xxx	Program Elective(s)	5
XXX	xxx	Electives from Technical Area	17
		<i>(to be approved by technical area advisor)</i>	

**Total Hours Required for TCC** **40**

**SUPERVISORY SPECIALIST  
Certificate**

**SSP1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Supervisory Management Certificate program prepares experienced workers for entry into management occupations in a variety of businesses and industries. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Program graduates receive an Supervisory Management Certificate.

**Curriculum**

**Credits**

**General Core Courses**

MSD	100	Principles of Management	5
MSD	103	Leadership	5
MSD	104	Human Resources Management	5
MSD	106	Performance Management	5

**Total Hours Required for TCC** **20**

## **MARKETING MANAGEMENT**

### **MARKETING MANAGEMENT Associate of Applied Science Degree**

**MM03**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Marketing Management program is designed to prepare students for employment in a variety of positions in today's marketing and management fields. The Marketing Management program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of marketing management. Graduates of the program receive a Marketing Management Associate of Applied Science degree with a specialization in marketing administration or entrepreneurship specialization. Each course within all of Chattahoochee Technical College's diploma/certificate level programs is acceptable for full credit toward the Occupationally-related Elective or General Elective hours for this associate degree.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Marketing Management in six quarters.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

##### **Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Public Speaking	5
ECO	1101 (ECO 191)	Principles of Economics	5
PSY	1101 (PSY 191)	Introduction to Psychology	
<b><u>Or</u></b>			
SOC	1101 (SOC 191)	Introduction to Sociology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra	
		<b><u>Or</u></b>	
MAT	1100 (MAT 196)	Quantitative Skills and Reasoning	
		<b><u>Or</u></b>	
MAT	1127 (MAT 198)	Introduction to Statistics	5

**Occupational Courses**

MKT	100	Introduction to Marketing	5
ACC	155	Legal Environment of Business	
		<b><u>Or</u></b>	
MKT	103	Business Law	5
MKT	106	Fundamentals of Selling	5
MKT	101	Principles of Management	
		<b><u>Or</u></b>	
MSD	100	Principles of Management	5
SCT	100	Introduction to Microcomputers	3

**Marketing Administration Specialization Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
MKT	108	Advertising	4
MKT	109	Visual Merchandising	
		<b><u>Or</u></b>	
MKT	232	Advanced Selling	4
MKT	110	Entrepreneurship (This Capstone course must be taken during student's last quarter before graduating)	8
MKT	122	Buying and Merchandise Management	
		<b><u>Or</u></b>	
MKT	228	Advanced Marketing	5
MKT	130	Marketing Administration O.B.I. I	3
MKT	131	Marketing Administration O.B.I. II	3
XXX	xxx	Electives	12

**Entrepreneurship Specialization Courses**

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6

MKT	108	Advertising	4
MKT	110	Entrepreneurship (This Capstone course must be taken during student's last quarter before graduating)	8
MKT	122	Buying and Merchandise Management	
		<b><u>Or</u></b>	
MKT	228	Advanced Marketing	5
MKT	123	Small Business Management	5
MKT	134	Entrepreneurship O.B.I. I	3
MKT	135	Entrepreneurship O.B.I. II	3
XXX	xxx	Electives	5
<b>Total Hours Required for Degree</b>			<b>98</b>

**MARKETING MANAGEMENT**  
**Diploma**

**MM02**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Marketing Management program is designed to prepare students for employment in a variety of positions in today's marketing and management fields. The Marketing Management program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of marketing management. Program graduates receive a Marketing Management diploma with a specialization in marketing administration.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Marketing Management Diploma in six quarters.

**Curriculum**

**Credits**

**General Core Courses**

ENG	1010 (ENG 111)	Business English	5
ENG	1012 (ENG 112)	Fundamentals of English II	5
MAT	1011 (MAT 111)	Business Math	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
ACC	1101 (ACC 101)	Principles of Accounting I	6
MKT	100	Introduction to Marketing	5
MKT	101	Principles of Management	

**Or**

MSD	100	Principles of Management	5
MKT	103	Business Law	5
MKT	104	Principles of Economics	

**Or**

MSD	112	Introduction to Business and Economics	5
MKT	106	Fundamentals of Selling	5
MKT	108	Advertising	4
MKT	109	Visual Merchandising	

**Or**



MKT	232	Advanced Sales	4
MKT	110	Entrepreneurship (This Capstone course must be taken during student's last quarter before graduating)	8
MKT	122	Buying and Merchandise Management	
<b><u>Or</u></b>			
MKT	228	Advanced Marketing	5
MKT	130	Marketing Administration O.B.I. I	3
MKT	131	Marketing Administration O.B.I. II	3
XXX	xxx	Electives	6
<b>Total Hours Required for Diploma</b>			<b>85</b>

**SMALL BUSINESS ENTREPRENEURSHIP  
Certificate**

**SBN1**

Availability: Paulding Campus

Program Purpose: The Small Business Entrepreneurship Certificate program prepares experienced workers for entry into Small Business Management occupations in a variety of businesses and industries. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Program graduates receive a Small Business Entrepreneurship certificate.

**Curriculum**

**Credits**

**General Core Courses**

MSD	100	Principles of Management	5
MKT	100	Introduction to Marketing	5
MKT	103	Business Law	5
MKT	110	Entrepreneurship	8

**Total Hours Required for TCC** **23**

**SMALL BUSINESS MARKETING MANAGER  
Certificate**

**5BY1**

Availability: North Metro Campus

Program Purpose: The purpose of the Small Business Management certificate program is to prepare individuals to develop and manage independent small businesses. Includes instruction in business administration, small business operations, business law and regulations.

**Curriculum**

**Credits**

**General Core Courses**

MKT	100	Introduction to Marketing	5
MKT	103	Business Law	5
MKT	106	Fundamentals of Selling	5
MKT	108	Advertising	4
MKT	123	Small Business Management	5
XXX	xxx	Elective	8

**Total Hours Required for TCC** **32**

**MARKETING SPECIALIST  
Certificate**

**5CF1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Small Business Marketing Certificate program generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers.

**Curriculum**

**Credits**

**General Core Courses**

MKT	100	Introduction to Marketing	5
MKT	106	Fundamentals of Selling	5
MKT	108	Advertising	4
XXX	xxx	Elective	5

**Total Hours Required for TCC** **19**

## **MEDICAL ASSISTING**

### **MEDICAL ASSISTING Diploma**

**MA02**

Availability: Multiple campus availability – check with the Admissions office

Program Accreditation: The Chattahoochee Technical College Medical Assisting programs are accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Medical Assisting program are eligible to take the National Certification (CMA) with the American Association of Medical Assistants.

Program Purpose: The Medical Assisting program prepares students for employment in a variety of positions in today's medical offices. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of medical assisting. Program graduates will receive a Medical Assisting diploma.

Program Length: A full time student who needs no preparatory coursework in English, math or reading and maintains satisfactory progress can complete the Medical Assisting Diploma in six quarters.

Admission Requirements: Students must meet the regular admission requirements of the college and be 17 years of age or older.

Students must take the required core courses before they will be allowed to register for any Medical Assisting courses. Student must achieve a final grade of C or better in all core courses in order to be eligible to register for any Medical Assisting courses.

Seats in Medical Assisting courses are limited and are allocated on a first come basis.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
PSY	1010 (PSY 101)	Basic Psychology*	5

\*PSY 1010 may be taken the first quarter of the Medical Assisting courses

### Occupational Core Courses

SCT	100	Introduction to Microcomputers	3
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Science	3
AHS	101	Anatomy and Physiology	5
BUS	1130 (BUS 101)	Document Processing	6

### Medical Assisting Courses

Students must achieve a grade of C or better in Medical Assisting Courses in order to pass the course. Please consult the Medical Assisting program handbook for more information regarding academic standards.

Medical Assisting courses must be taken in the sequence listed below.

#### First Quarter

MAS	106	Medical Office Procedures	5
MAS	112	Human Diseases	5

#### Second Quarter

MAS	103	Pharmacology	5
MAS	108	Medical Assisting Skills I	6
MAS	110	Medical Insurance Management	3

#### Third Quarter

MAS	101	Legal Aspects of the Medical Office	3
MAS	109	Medical Assisting Skills II	6
MAS	111	Administrative Practice Management	4

#### Fourth Quarter

MAS	117	Medical Assisting Externship	8
MAS	118	Medical Assisting Seminar	4

<b>Total Hours Required for Diploma</b>	<b>84</b>
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### Program Specific Requirements

#### Clinical requirements

Students must present formal documentation of the following:

- ✓ Criminal Background Check
- ✓ Physical Exam by a MD, NP, or PA
- ✓ 10 panel drug screen

- ✓ Tuberculosis test (PPD) or chest x-ray
- ✓ Completion of the Hepatitis B vaccine series (or a signed declination)
- ✓ Current CPR card
- ✓ Proof of two MMR vaccines or proof of positive titers for measles, mumps, and rubella (if born after 1957)
- ✓ Proof of positive rubella titer (if born before 1957)
- ✓ Proof of tetanus shot within 10 years

These documents must be on file prior to the beginning of the second quarter of MAS courses. Failure to meet these requirements may result in dismissal from the program.

### **Malpractice Insurance**

Students are required to purchase malpractice insurance by the beginning of the second quarter of the MAS courses. This insurance is available through the business office. The student is responsible for supplying the instructor with a copy of the receipt of payment for the insurance. The cost of this insurance fluctuates occasionally. Please check with the business office for pricing.

### **Program Progression and Readmission**

The Medical Assisting program will progress as a cohort. All eligible students will move through the program at the same pace. Admission of additional students, transient or transfer, will be decided on a case by case basis.

Throughout the Medical Assisting program, students will not be allowed to continue or to re-admit to the program after two withdrawals or two academic failures or any combination of withdrawals and academic failures. If a student withdraws or does not successfully complete a course, the student must wait for the next cohort for consideration for readmission or be considered for admission to a cohort on an alternate campus. In order to be admitted to a cohort on an alternate campus, the student must be interviewed by the instructor on the alternate campus, submit an essay explaining the details of the need to be admitted to another cohort, and submit an action plan to correct any academic deficiencies and or correcting the reason for withdrawal. The decision to allow readmission or admission on an alternate campus will at the discretions of the program director and one or more administrative leaders in the college.

### **Externship Placement**

Following the completion of all required course with the exception of MAS 117 and MAS 118, the Medical Assisting program staff will arrange for each student to be placed in a externship location. If for any reason, the student is not able to complete the required clinical hours at that location, the student is responsible for finding their own clinical site within 5 business days. Failure to locate another clinical location within the 5 business day period will result in dismissal from the program.

### **Required National Testing**

Students will be required to take the American Association of Medical Assistants Nation Certification Exam (CMA) or the American Medical Technologists National registration Exam (RMA) prior to graduation. Passing is not required for graduation but all students must attempt the exam.

**Positive Drug Screens:**

It is unacceptable for students to have illegal drugs in their system, to be under the influence of alcohol, or to have levels of legal drugs which are not disclosed and/or for which no prescription can be produced. Positive findings on a drug screen or refusal to submit to a requested drug screen will result in ineligibility to be admitted to the program. Positive drug findings for students who are currently in the program will result in immediate administrative withdrawal from the program.

**Positive Criminal Background Checks:**

If a student has been convicted of a misdemeanor or felony (excluding misdemeanor speeding convictions, unless they are related to alcohol or drug use) they are required to report this to the American Association of Medical Assistant's certifying agency. The AAMA may decide to take action in the denial of the student's application for certification. (See [www.aama-ntl.org](http://www.aama-ntl.org) for the FAQs on Certification.) The student may also be prohibited from attending the required clinical rotations due to a positive background check, which would prevent the student from completing the Medical Assisting program.



## **NURSING**

### **ASSOCIATE DEGREE NURSING**

#### **Degree**

Availability: South Cobb Campus

Program Purpose: The *Chattahoochee Technical College Associate Degree Nursing Program* prepares men and women to become safe practitioners in the delivery of health care. The curriculum provides a strong foundation in the practice of nursing and prepares the student to function safely within the framework of the registered nurse role. The faculty at the *Chattahoochee Technical College Associate Degree Nursing Program* believe that our role as nurse educators is to incorporate multiple teaching strategies to enhance student learning and to provide a caring, nurturing, supportive environment.

Throughout the program, students integrate classroom theory with clinical experiences that are related to the theory component. Nursing education incorporates effective therapeutic communication techniques, critical thinking skills and the development of sound nursing judgment and technical skills. Clinical experiences are selected to provide the registered nurse student with the greatest opportunity to become clinically competent. The ultimate goal of the faculty is to prepare the student to become a safe nursing practitioner who will be an asset to the nursing profession and continue his/her professional growth and development. Graduates of the program are eligible to take the National Council Licensing Examination for Registered Nurses (*NCLEX-RN*). Upon successfully passing the *NCLEX-RN*, graduates are granted state licensure to practice nursing in Georgia as registered nurses.

Program Length: A full time student who needs no preparatory course work in English, math, or reading and maintains satisfactory progress can complete the Associate Degree Nursing Program in nine (9) quarters.

Admission Requirements: Students must meet all admission requirements of the college and have reached the age of seventeen (17).

Students who apply to the Associate Degree Nursing program must enroll in the Technical Communications TCC to complete the associate degree level pre-requisites. In addition, students must apply to the associate degree nursing program by the end of summer quarter of each year. The associate degree nursing program application is located on the nursing web page as a link. It must be hand delivered to the nursing office.

Admission into the Associate Degree Nursing program is competitive and is based on the following criteria:

Students must complete or have transfer credit for the following pre-admission courses by the end of summer quarter.

The student's GPA in the following courses will be calculated to compute the competitive GPA:

ENG 1101  
PSY 1101  
MAT 1111  
BIO 2113  
BIO 2114  
BIO 2117

The student must achieve a GPA of 3.0 or higher in these courses to be considered for admission to the ADN program. All attempts within four (4) years of admission into the associate degree program, in BIO 2113, BIO 2114, and BIO 2117 will be calculated to determine the GPA. All pre-requisite courses that determine the GPA must be completed by the end of summer quarter.

### **Standardized Test – TEAS**

Students must take the *TEAS* (Test of Essential Academic Skills) by the end of summer quarter prior to their potential admission into the ADN program. Students may take the *TEAS* once every three (3) months and up to **two (2)** times within the last calendar year to be considered for admission to the ADN program. If the student takes the *TEAS* more than **two (2)** times, only the scores from the **first two (2)** attempts will be considered.

Students must achieve a *minimum* of the published national average score for ADN level students on the TEAS. Students that score below the published national average score will **not** be considered for admission into the program.

For more information about the TEAS test, go to [www.atitesting.com](http://www.atitesting.com).

## Curriculum

## Credits

### Pre-requisite Courses

ENG 1101	Composition and Rhetoric	5
MAT 1111	College Algebra	5
PSY 1101	Introduction to Psychology	5
BIO 2113	Anatomy and Physiology I	5
BIO 2114	Anatomy and Physiology II	5
BIO 2117	Introductory Microbiology	5

### General Core Courses

ENG 1102	Literature and Composition	5
PSY 2103	Human Growth and Development	5
SOC 1101	Introductory Sociology	5

MUS 1101	Music Appreciation	5
<u>or</u>		
ART 1101	Art Appreciation	5

### or

HUM 1101	Introduction to Humanities	5
SCT 100	Introduction to Microcomputers	3

### Occupational Courses

NUR 1960	Foundations of Nursing	9
NUR 1995	Adult Health Nursing Concepts I	9
NUR 2060	Adult Health Nursing Concepts II	9
NUR 2095	Family Health Nursing Concepts	9
NUR 1998	Advanced Nursing Concepts	9
NUR 2098	Nursing Leadership and Transitions	10
NUR 2099	NCLEX-RN Review	2

### Total Hours Required for Degree

**110**

## **PRACTICAL NURSING**

### **PRACTICAL NURSING**

**PN04**

#### **Diploma**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The practical nursing program is designed to prepare students to become safe practitioners in the delivery of health care. The curriculum provides a strong foundation in the practice of nursing and prepares the student to function safely within the framework of the practical nursing role. Nursing theory is integrated with clinical experiences to provide the practical nursing student with the greatest opportunity to become clinically competent. The curriculum also incorporates the teaching of effective therapeutic communication techniques, critical thinking skills, and the development of sound nursing judgment and technical skills. Program graduates receive a practical nursing diploma and are eligible to sit for the National Council Licensing Examination for Practical Nurses (NCLEX-PN). After successful completion of the NCLEX-PN examination graduates are granted state licensure to practice nursing in Georgia as licensed practical nurses.

Program Length: A full time student who needs no preparatory coursework in English, math or reading and maintains satisfactory progress can complete the Practical Nursing Diploma in six quarters.

#### Admission Requirements:

Students must meet all admission requirements of the college and have reached the age of 17.

Students that intend to apply for the Practical Nursing program will enroll in the college's Health Care Assistant Certificate program to complete diploma level pre-requisites.

Admission into the LPN program is competitive in nature, and is based on the following criteria:

- The student's GPA in the following courses will be calculated to compute the competitive GPA:
  - AHS 101
  - AHS 109
  - ENG 1109 (191)
  - MAT 1012 (101)
  - PSY 1011 (101)

Students must achieve a GPA of 3.0 in these courses in order to be considered for admission to the LPN program. **Students may repeat a course one time. The higher of the two grades will be used to compute the competitive GPA.**

- The student's score on the TEAS test will be used to select students for the LPN program. Students must achieve a minimum of the national average of the composite score for LPN students on the TEAS test in order to be eligible for admission to the LPN program. This score is published annually by ATI. Please consult admissions for the most recent minimum test score.

For more information about the TEAS test go to [www.Atltesting.com](http://www.Atltesting.com).

## Curriculum

## Credits

### General Core Courses

ENG	1101	(ENG 191)	Composition and Rhetoric	5
MAT	1012	(MAT 101)	Foundations of Mathematics	5
PSY	1010	(PSY 101)	Basic Psychology	5
AHS	101		Anatomy and Physiology	5
AHS	104		Introduction to Health Care	3
AHS	109		Medical Terminology for Allied Health Science	3

### Occupational Courses

AHS	102		Drug Calculation and Administration	3
AHS	103		Nutrition and Diet Therapy	2
NPT	112		Medical Surgical Nursing Practicum I	7
NPT	113		Medical Surgical Nursing Practicum II	7
NPT	212		Pediatric Nursing Practicum	2
NPT	213		Obstetrical Nursing Practicum	3
NPT	215		Nursing Leadership Practicum	2
NSG	110		Nursing Fundamentals	10
NSG	112		Medical Surgical Nursing I	9
NSG	113		Medical Surgical Nursing II	9
NSG	212		Pediatric Nursing	5
NSG	213		Obstetrical Nursing	5
NSG	215		Nursing Leadership	2
SCT	100		Introduction to Microcomputers	3
DIS	150		PN - Directed Study	2

### Total Hours Required for Diploma

97

## PARAMEDIC TECHNOLOGY

### PARAMEDIC TECHNOLOGY Diploma

EMO2

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The Paramedic Technology Program prepares candidates for successful employment in the field of emergency medical services. The Paramedic Technology program provides intense classroom and laboratory academic preparation as well as dynamic coordinative clinical and field experiences for the attainment of the skills and knowledge necessary for graduates to perform in the field of paramedic emergency medical technology.

The program of study provides students who hold current certification as an EMT with the opportunity to expand their skills to the paramedic level. Graduates of this program have completed the necessary requirements to sit for the NREMT Paramedic examination. Upon successful completion of this program, students will receive a Paramedic Technology diploma.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Paramedic Technology Diploma in five quarters.

Additional Admission Requirements: Admission to this program is competitive in nature. Factors such as grade point average will be taken into account. These factors are subject to change; please contact the ACCESS Center/Admissions for specific details.

Admission procedure: Submit a completed specific EMS admission packet in addition to regularly prescribed Chattahoochee Technical College admissions application procedures on or before established Chattahoochee Technical College deadlines. Students are accepted on the basis of course and space availability.

Additional Program Cost: Additional fees associated with this program may be assessed.

### Curriculum

### Credits

#### General Core Courses

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
AHS	101	Anatomy and Physiology	5
EMS	126	Introduction to the Paramedic Profession	3
EMS	127	Patient Assessment	4
EMS	128	Applied Physiology and Pathophysiology	3
EMS	129	Pharmacology	4
EMS	130	Respiratory Emergencies	5
EMS	131	Trauma	5
EMS	132	Cardiology I	5
EMS	133	Cardiology II	4
EMS	134	Medical Emergencies	5
EMS	135	Maternal/Pediatric Emergencies	5
EMS	136	Special Patients	2
EMS	200	Clinical Application of Advanced Emergency Care	11
EMS	201	Summative Evaluation	5

**Total Hours Required for Diploma** **79**

## **PHYSICAL THERAPIST ASSISTANT**

### **PHYSICAL THERAPIST ASSISTANT Degree**

**PT03**

Availability: North Metro Campus

Program Purpose: The Physical Therapist Assistant program is a sequence of courses that prepares students for positions in hospitals and clinics with Physical Therapist departments. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of didactic and clinical instruction necessary for successful employment. Program graduates receive a Physical Therapist Assistant Associate of Applied Science degree, have the qualifications of a physical therapist assistant, and are then eligible to sit for a state administered national examination for physical therapist assistants.

Program Length: A full-time student with regular admission who has already passed all prerequisite courses with a 'C' or better and maintains satisfactory progress will complete the Physical Therapist Assistant-specific course requirements in five quarters.

Additional Admission Requirements: The Physical Therapist Assistant program utilizes a competitive admission process to select students and does not utilize a waiting list. This is done to ensure maximum opportunity for student success in the program. Students who wish to apply to the Physical Therapist Assistant program must first enroll in the Health Care Science Certificate program. Students are required to achieve the appropriate scores on the ASSET/COMPASS placement exams in order to qualify for admission into the required degree level prerequisite courses. Students must submit official transcripts to the Registrar's office for appropriate transfer credits. The Registrar's office will evaluate the student's transcripts to determine what courses may or may not transfer.

The following is a list of the minimum requirements for admission; however, meeting the requirements does not guarantee admission into the Physical Therapist Assistant program. Candidates for admission must be at least 18 years of age, a high school graduate or have obtained a General Education Diploma (G.E.D.), and complete all published prerequisite courses with a grade of "C" or better. The prerequisite courses are as follows: AHS 104, AHS 109, BIO 193, BIO 194, ENG 191, HUM 191, MAT 191, PHY 190, PSY 191, PSY 291, SCT 100, and SPC191.

The Physical Therapist Assistant program admits students once per year at the beginning of Fall Quarter. Applicants must:



- Be enrolled as a student by the start of summer quarter.
- During spring quarter, attend a Physical Therapist Assistant Program Information Session at the campus in order to receive a program application. Applicants should check with the college for dates and times.
- By the end of Spring Quarter, provide valid test scores from the TEAS which is a standardized test that is administered through the Continuing Education Department. Students may take the TEAS test twice per application period and the higher of the scores will be utilized.
- Satisfactorily complete AHS 109, BIO 193\*, BIO 194\*, ENG 191, MAT 191\*, and PHY 190 by the end of Spring Quarter. The grades in these courses will be used in the competitive selection process. The competitive GPA must be 3.0 or higher in order to receive an interview for program admission. Students will have Summer Quarter to complete any remaining prerequisite courses. The remaining courses must be completed with a "C" or higher for admission into the program.  
\*The two Biology courses and the Math course carry double weight in the competitive GPA calculation for admission into the program. Students make repeat a course once. The higher of the two grades will be used to compute the competitive GPA.
- Gain an awareness of the job requirements of a physical therapist assistant through volunteer physical therapy observation and/or work experience as a physical therapy aide (minimum of 60 hours in *at least three different clinical settings*).
- Participate in an interview with the program admission committee.
- Complete a program admission essay.
- Demonstrate ability to perform physical therapy essential functions (as listed in the admission packet).
- Submit a PTA program application.

### Admission Component Weights

Competitive GPA	50%
TEAS Score	20%
Interview	20%
Essay and PT observation/experience	10%

### Curriculum

### Credits

#### Area I – English/Humanities/Fine Arts

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

**Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	5
PSY	2103 (PSY 291)	Human Growth and Development	5
SPC	1101 (SPC 191)	Public Speaking	5

**Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
BIO	2113 (BIO 193)	Anatomy and Physiology I	5
BIO	2114 (BIO 194)	Anatomy and Physiology II	5
PHY	1110 (PHY 190)	Introduction to Physics	5

**Prerequisite Occupational Courses**

AHS	104	Introduction to Healthcare	3
AHS	109	Medical Terminology	3
SCT	100	Introduction to Microcomputers	3

**Occupational Courses****First Quarter**

PTA	101	Introduction to Physical Therapy	3
PTA	102	Orientation to Physical Therapy and Patient Care Techniques	3
PTA	103	Functional Anatomy and Kinesiology	5
PTA	104	Physical Therapist Assistant Procedures I	4

**Second Quarter**

PTA	201	Pathology I	5
PTA	202	Therapeutic Exercise I	4
PTA	203	Physical Therapist Procedures II	4
PTA	204	Clinical Practicum I	5

**Third Quarter**

PTA	205	Pathology II	5
PTA	206	Therapeutic Exercise II	4
PTA	209	Kinesiology II	5

**Fourth Quarter**

PTA	207	Physical Therapist Assistant Procedures III	4
PTA	210	Therapeutic Exercise II	4
PTA	211	Clinical Practicum II	6

**Fifth Quarter**

PTA	212	Clinical Practicum III	10
PTA	213	Seminar for Physical Therapist Assistants	2

**Total Hours Required for Degree** **127**

**Program-specific completion requirements**

Each student must successfully complete all of the following:

- Complete the PTA prefix courses with a final course average of 75% or higher
- Complete required clinical internship hours
- Demonstrate all clinical competency skills (a minimum of 80% on practical exams and 100% on critical safety skills checks)
- Complete terminal comprehensive examination with a final score of 80% or higher
- Submit documentation of a physical exam and TB/PPD test or chest x-ray within last 12 months, tetanus vaccine within last 10 years, evidence of completion of Hepatitis B vaccine series (or waiver), and immunizations (MMR, DTP and Varicella) prior to each clinical internship. Proof of current CPR certification, malpractice/professional liability insurance and health insurance must also be approved.
- Students are responsible for completing a criminal background check and drug screen

**Conviction of a felony or failure to provide a clean drug testing sample will prevent the student from participating in the clinical education component of the curriculum, and therefore, graduating from the program.**

**Commission of a felony may also prevent graduates from obtaining a Physical Therapist Assistant license.**

## **POWERSPORTS EQUIPMENT REPAIR TECHNOLOGY**

### **POWERSPORTS EQUIPMENT REPAIR Diploma**

**PWS2**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Technology diploma program is a sequence of classes designed to prepare students for an entry-level position as a motorcycle or ATV technician. The classes are structured to provide in-depth technical knowledge and understanding about the concepts and fundamental principles of electrical, mechanical, and fuel systems, as well as chassis and suspension. Emphasis is placed on accurate diagnosis and repair of all major systems and subsystems.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the PowerSports Equipment Repair Technology Diploma in five quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	120	PowerSports Equipment Engine Principles of Operation and Repair	5
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
PSE	124	PowerSports Equipment Starting and Charging Systems	3
PSE	130	PowerSports Equipment Chassis, Suspension, Tires, Wheel and Brakes	4
PSE	140	PowerSports Equipment Electronic Engine Control Systems	3
PSE	142	PowerSports Equipment Fuel, Ignition, and Emission Systems	5
PSE	144	PowerSports Equipment Performance Review	4

PSE	220	PowerSports Equipment Technology Internship	6
XXX	xxx	Elective	4

**Total Hours Required for Diploma** **62**

**POWERSPORTS EQUIPMENT CHASSIS, SUSPENSION,  
AND BRAKE REPAIR TECHNICIAN  
Certificate** **PWH1**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Chassis, Suspension, and Brake Repair Technician certificate is a sequence of classes designed to provide an understanding of chassis, suspension, and brake system applications on motorcycles and ATVs. Emphasis is placed on accurate diagnosis and repair of chassis, suspension, and brake systems.

**Curriculum** **Credits**

**General Core Courses**

PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
PSE	130	PowerSports Equipment Chassis, Suspension, Tires, Wheels and Brakes	4

**Total Hours Required for TCC** **16**

**POWERSPORTS EQUIPMENT ELECTRICAL TECHNICIAN  
Certificate**

**PWL1**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Electrical Technician certificate is a sequence of classes designed to provide an understanding of charging systems and basic electrical applications on motorcycles and ATVs. Emphasis is placed on accurate diagnosis and repair of motorcycle and ATV electrical systems.

**Curriculum**

**Credits**

**General Core Courses**

PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
PSE	124	PowerSports Equipment Starting and Charging Systems	3

**Total Hours Required for TCC** **15**

**POWERSPORTS EQUIPMENT ENGINE PERFORMANCE TECHNICIAN  
Certificate**

**PWP1**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Engine Performance Technician certificate is a sequence of classes designed to provide a practical understanding of basic engine performance and drivability problems on motorcycles and ATVs. Emphasis is placed on accurate diagnosis and repair of engine drivability related problems.

**Curriculum**

**Credits**

**General Core Courses**

PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	120	PowerSports Equipment Engine Principles of Operation and Repair	5
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
PSE	142	PowerSports Equipment Fuel, Ignition, and Emission Systems	5
PSE	144	PowerSports Equipment Performance Review	4

**Total Hours Required for TCC** **26**

**POWERSPORTS EQUIPMENT ENGINE REPAIR TECHNICIAN  
Certificate**

**PWR1**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Engine Repair Technician certificate is a sequence of classes designed to provide an understanding of basic engine repair on motorcycles and ATVs. Emphasis is placed on accurate diagnosis and repair of PowerSports equipment engines.

**Curriculum**

**Credits**

**General Core Courses**

PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	120	PowerSports Equipment Engine Principles of Operation and Repair	5
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
<b>Total Hours Required for TCC</b>			<b>17</b>



**POWERSPORTS EQUIPMENT MAINTENANCE TECHNICIAN  
Certificate**

**PWM1**

Availability: Marietta Campus

Program Purpose: The PowerSports Equipment Maintenance Technician certificate is a sequence of classes designed to provide an understanding of basic maintenance services and repair on motorcycles and ATVs. Emphasis is placed on preventive maintenance procedures and accurate diagnosis and repair of related systems.

**Curriculum**

**Credits**

**General Core Courses**

PSE	100	Introduction to PowerSports Equipment and Maintenance Theory	4
PSE	105	PowerSports Equipment Applied Basic Maintenance	3
PSE	120	PowerSports Equipment Engine Principles of Operation and Repair	5
PSE	122	PowerSports Equipment Electrical and Electronic Systems Operation and Repair	5
PSE	140	PowerSports Equipment Electronic Engine Control Systems	3

**Total Hours Required for TCC** **20**

## **RADIOGRAPHY**

### **RADIOGRAPHY Degree**

**RT03**

Availability: North Metro Campus

Program Purpose: The Radiography program is a sequence of courses that prepares students for positions in Radiology departments and related businesses and industries. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of didactic and clinical instruction necessary for successful employment. Program graduates receive a Radiologic Technology Associate of Applied Science degree, and possess the qualifications of an entry-level radiographer and are eligible to take the national boards administered by the American Registry of Radiologic Technologists (ARRT) once all academic and clinical requirements are met.

Program Length: A full-time student with Regular Admission who has already passed all prerequisite courses with a 'C' or better and maintains satisfactory progress will complete the Radiologic Technology-specific course requirements in seven quarters.

Additional Admission Requirements: The Radiography program utilizes a competitive selection process to select students and does not utilize a waiting list. This is done to ensure maximum opportunity for student success in the program. Students who wish to apply to the Radiography program must first enroll in the Health Care Science Certificate program. Students are required to achieve the appropriate scores on the ASSET/COMPASS placement exams in order to qualify for admission into the required degree level prerequisite courses. Students must submit official transcripts to the Registrar's office for appropriate transfer credits. The Registrar's office will evaluate the student's transcripts to determine what courses may or may not transfer.

The following is a list of the minimum requirements for admission; however, meeting the requirements does not guarantee admission into the Radiography program. Candidates for admission to this twenty-one month, full-time program of instruction must be at least 18 years of age, a high school graduate or have obtained a General Education Diploma (G.E.D.), and complete all published prerequisite courses with a grade of "C" or better. The prerequisite courses are as follows: ENG 1101/191, AHS 104, AHS 109, MAT 1111/191\*, PHY 1110/190, SCT 100, PSY 1101/191, BIO 2113/193, BIO 2114/194, HUM 1101/191, and SPC 1101/191.

\*The grade in MAT 191 will be double weighted for the competitive admission process.

The Radiography program admits students once per year at the beginning of Winter Quarter (January). The program accepts a maximum of 24 students each year through the competitive enrollment process. Applicants must:

- Be enrolled as a regular student by the start of summer quarter.
- During summer quarter, attend a Radiography Program Information Session at the campus in order to receive a program application. Applicants should check with the college for dates and times.
- By October 1, provide valid test scores from the TEAS which is a standardized test that is administered at North Metro Technical College through the Continuing Education office. Students may take the TEAS per application period and the higher of the scores will be utilized. The math score will be doubled for the competitive admission process.
- Satisfactorily complete BIO 193, BIO 194, ENG 191, MAT 191, AHS 109, & AHS 104 by the end of Summer Quarter. The grades in these courses will be used in the competitive selection process. Students will have Fall Quarter to complete any remaining courses. The remaining courses must be completed with a “C” or higher for admission into the program.
- Participate in personal interviews with program faculty. Interviews are scheduled in late October or early November for possible entrance into the following January class. The interview panel is made up of 3 to 5 members. The student’s scores are averaged together for the final interview score in the competitive selection process. If chosen for entrance into the Radiography program, students are required to attend 3 days of mandatory orientation during the month of December. Students will forfeit their position if they fail to attend any one of the orientation days. Applicants not selected for the program may reapply the following year. Applicants will be required to repeat the application process.

## **Curriculum**

## **Credits**

### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
HUM	1101 (HUM 191)	Introduction to Humanities	5
SPC	1101 (SPC 191)	Fundamentals of Speech	5

### **Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	5
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### **Area III – Natural Sciences/Mathematics**

MAT	1111 (MAT 191)	College Algebra	5
BIO	2113 (BIO 193)	Anatomy and Physiology I	5
BIO	2114 (BIO 194)	Anatomy and Physiology II	5
PHY	1110 (PHY 190)	Introductory Physics	5

### **Occupational Core**

AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Science	3
SCT	100	Introduction to Microcomputers	3

**Prior to enrolling in Radiography courses, you must complete the pre-requisite courses above. You must earn a C or better in each of the pre-requisite courses.**

### **Occupational Courses**

#### **First Quarter**

RAD	101	Introduction to Radiology	5
RAD	103	Body, Trunk and Upper Extremity Procedures	3
RAD	107	Principles of Radiographic Exposure I	4
RAD	132	Clinical Radiography I	5

#### **Second Quarter**

RAD	106	Lower Extremity and Spine Procedure	3
RAD	123	Radiologic Science	5
RAD	133	Clinical Radiography II	7

#### **Third Quarter**

RAD	109	Contrast Procedures	3
RAD	116	Principles of Radiographic Procedures II	3
RAD	134	Clinical Radiography III	7

#### **Fourth Quarter**

RAD	113	Cranium Procedures	2
RAD	119	Radiographic Pathology and Medical Terminology	3
RAD	135	Clinical Radiography IV	7

#### **Fifth Quarter**

RAD	117	Radiographic Imaging Equipment	4
RAD	136	Clinical Radiography V	7

**Sixth Quarter**

RAD	120	Principles of Radiation Biology and Protection	5
RAD	137	Clinical Radiography VI	10

**Seventh Quarter**

RAD	126	Radiologic Technology Review	4
RAD	138	Clinical Radiography VII	10

**Total Hours Required for Degree** **146**

**Program-specific completion requirements**

In order for the program officials to certify program completion for ARRT eligibility purposes, each student must successfully complete all of the following:

- RAD prefix courses with a final course average of 75% or higher.
- Required clinical rotation hours.
- Published ARRT competency requirements for the Radiography Examinations.
- Terminal competency examinations with a final score of 80% or higher.

**Eligibility for ARRT Certification:**

Every candidate for certification and every applicant for renewal of registration must, according to the governing documents, “be a person of good moral character and must not have engaged in conduct that is inconsistent with ARRT Rules of Ethics,” and they must “agree to comply with the ARRT Rules and Regulations and the ARRT Standard of Ethics.”

- A criminal proceeding where a finding or verdict of guilt is made or returned but the adjudication of guilt is either withheld or deferred,
- A proceeding in which the sentence is suspended or stayed
- A criminal proceeding where the individual enters a plea of guilty or nolo contendere (no contest), or
- A proceeding resulting in a military courtmartial

ARRT investigates all potential violations in order to determine eligibility. Further information may be found on the ARRT web site at [www.arrt.org](http://www.arrt.org).

**ARRT also investigates violations relating to:**

“the student being subjected to a sanction as a result of a violation of an academic honor code, or suspended or dismissed by an educational program that was attended in order to meet ARRT certification requirements” in order to determine eligibility for certification.

***Mandatory Drug Testing and Background Check for Radiography Students***

In order to provide competent health care workers and be in compliance with clinical agency contracts, each student will be required to submit to drug screening as well as a criminal background check prior to being admitted into the Radiography Program. Cost associated with these screenings will be paid for by the student. The Radiography Program and the various clinical facilities associated with the program may also conduct random drug screenings. (See Student Handbook, page 31)

**Positive Drug Screens:**

It is unacceptable for students to have illegal drugs in their system, to be under the influence of alcohol, or to have levels of legal drugs which are not disclosed and/or for which no prescription can be produced. Positive findings on a drug screen or refusal to submit to a requested drug screen will result in ineligibility to be admitted to the program. Positive drug findings for students who are currently in the program will result in immediate administrative withdrawal from the program.

**Positive Criminal Background Checks:**

If a student has been convicted of a misdemeanor or felony (excluding misdemeanor speeding convictions, unless they are related to alcohol or drug use) they are required to report this to the American Registry of Radiologic Technologists, which is the Radiography certifying agency. The ARRT may decide to take action in the denial of the student's application for certification. (See [www.arrt.org](http://www.arrt.org) for the Pre Application Review of Eligibility for Certification.) The student may also be prohibited from attending the required clinical rotations due to a positive background check, which would prevent the student from completing the Radiography program.

## **SPORT AND RECREATION MANAGEMENT**

### **SPORT AND RECREATION MANAGEMENT Associate of Applied Science Degree**

**REM3**

Availability: Marietta Campus

Program Purpose: The Sport and Recreation Management associate degree program provides academic preparation and practical experience in the skills and techniques required to be successful in the Sport Business and Leisure fields. Sport management is one of the fastest growing fields of study in the country and provides graduates with numerous opportunities in the industry. Future sport managers who graduate from the program will be prepared for success in various sectors of the sport industry such as: (1) professional teams or collegiate athletic departments; (2) sport facilities and event management; (3) sport marketing, promotion, or advertising; (4) local recreation departments and state parks; (5) The Olympic Movement and governance organizations; (6) State and county sports commissions; (7) athletic leagues and associations.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Sport and Recreation Management in eight quarters.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	
<b><u>Or</u></b>			
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

SPC	1101 (SPC 191)	Public Speaking	5
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*Choose two from the following:*

ECO	2106 (ECO 193)	Principles of Microeconomics	5
ECO	2105 (ECO 192)	Principles of Macroeconomics	5
PSY	1101 (PSY 191)	Introduction to Psychology	5
SOC	1101 (SOC 191)	Introduction to Sociology	5

**Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra	5

**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
MKT	100	Introduction to Marketing	5
MSD	100	Principles of Management	5
SPM	203	Legal Issues in Sport	
		<b><u>Or</u></b>	
MKT	103	Business Law	5
MKT	106	Fundamentals of Selling	
		<b><u>Or</u></b>	
MSD	103	Leadership	5

(Completion of one concentration is required for graduation)

**Sport Management Concentration**

RLM	201	Introduction to Recreation Management	5
RLM	205	Recreational Program Leadership	5
RLM	217	Recreational Management Internship	10
XXX	xxx	General Electives	17

**Sport & Recreation Admin Asst Concentration**

RLM	201	Introduction to Recreation Management	5
RLM	205	Recreational Program Leadership	5
BUS	1130 (BUS 101)	Document Processing	5
BUS	1150 (BUS 105)	Database Applications	5
BUS	1240 (BUS 106)	Office Procedures	5
BUS	2120 (BUS 202)	Spreadsheet Applications	5
XXX	xxx	General Elective(s)	7

**Total Hours Required for Degree** **90**



## **SURGICAL TECHNOLOGY**

### **SURGICAL TECHNOLOGY Diploma**

**ST02**

Availability: Marietta Campus

Program Purpose: The Surgical Technology program prepares students to become qualified surgical technologists. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. A clinical rotation at a hospital is a vital part of the educational experience.

Graduates are prepared to function as an integral part of the team of medical practitioners that provides surgical care to patients in a variety of settings. They work under medical supervision to facilitate safe and effective surgical procedures. Duties of the surgical technologist may be performed in operating rooms, ambulatory surgical centers, central supply, labor and delivery areas, cardiac catheterization laboratories, private physicians' offices, organ procurement organizations, and other areas where invasive procedures are performed. Graduates are eligible to sit for the national certification examination.

Program Length: A full time student who needs no preparatory coursework in English, math or reading and maintains satisfactory progress can complete the Surgical Technology Diploma in six quarters.

#### Additional Admission Requirements:

Admission to this program is competitive in nature. Admission is based on three factors:

- The GPA in the following courses
  - ENG 1010
  - MAT 1012
  - AHS 101
  - AHS 104
  - AHS 109

These courses must be completed by the end of winter quarter with a GPA of 3.0 or higher. Students may repeat a course one time, and the higher of the two grades will be used to compute the competitive GPA.

- The student's score on the TEAS test (Test of Essential Academic Skills). The TEAS test must be taken by the end of winter quarter. Students must score a minimum of the national average of the composite score that ATI publishes for candidates for LPN programs to be considered as a candidate for the Surgical Technology program. This score changes every year. Please consult the Surgical Technology program director or the Admissions Office for the most current minimum score.

- The student's score on the Perdue Pegboard Test of Manual Dexterity. The Program Director will administer this test during winter quarter.

Seats in the Surgical Technology program are limited, and completion of the admission process does not guarantee a student admission to the program. All students' results will be compared and the 20-24 students with the best results will be admitted into the program.

## **Curriculum**

## **Credits**

### **General Core Prerequisite Courses**

ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5
PSY	1010 (PSY 101)	Basic Psychology	5

### **Occupational Prerequisite Courses**

SCT	100	Introduction to Microcomputers	3
AHS	101	Anatomy and Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Sciences	3

### **Surgical Technology Courses**

SUR	101	Introduction to Surgical Technology	6
SUR	102	Principles of Surgical Technology	5
SUR	108	Surgical Microbiology	3
SUR	109	Surgical Patient Care	3
SUR	110	Surgical Pharmacology	3
SUR	112	Introductory Surgical Practicum	7
SUR	203	Surgical Procedures I	6
SUR	204	Surgical Procedures II	6
SUR	213	Specialty Surgical Practicum	8
SUR	214	Advanced Specialty Surgical Practicum	8
SUR	224	Seminar in Surgical Technology	3

**Total Hours Required for Diploma** **87**

## **TECHNICAL COMMUNICATIONS**

### **TECHNICAL COMMUNICATIONS Certificate**

**5DQ1**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: The purpose of this certificate is to prepare students for positions in business that require written and oral communication skills along with the technical proficiency to translate technical information to various audiences and in various formats. Program objectives include providing students with an appreciation of the cultural and social context of the writing audience; developing an understanding of the basic psychological principles that affect oral and written communications; and develop scientific and/or mathematical skills that enable them to understand technical writing tasks. This certificate program provides students with the computer, word processing and presentation software fundamentals.

### **Curriculum**

### **Credits**

#### **General Core Courses**

SCT	100	Introduction to Microcomputers	3
ENG	1101 (ENG 191)	Composition and Rhetoric	5

#### **Math Courses**

**5**

MAT	1101 (MAT 190)	Math Modeling
MAT	1111 (MAT 191)	College Algebra
MAT	1112 (MAT 193)	College Trigonometry
MAT	1113 (MAT 194)	Pre-calculus
MAT	1131 (MAT 195)	Differential Calculus
MAT	1127 (MAT 198)	Introduction to Statistics

#### **Social Science Courses**

**5-10**

PSY	1101 (PSY 191)	Introduction to Psychology
PSY	1150 (PSY 192)	Industrial/Organizational Psychology
PSY	2250 (PSY 201)	Abnormal Psychology
PSY	2103 (PSY 291)	Human Development
SOC	1101 (SOC 191)	Introduction to Sociology
ECO	1101 (ECO 191)	Principles of Economics
ECO	2105 (ECO 193)	Principles of Macroeconomics
ECO	2106 (ECO 192)	Principles of Microeconomics

**Arts/Humanities/Literature Courses****5-10**

ENG	1102 (ENG 193)	Literature and Composition
ENG	1105 (ENG 195)	Technical Communications
HUM	1101 (HUM 191)	Introduction to Humanities
SPC	1101 (SPC 191)	Public Speaking
HIS	1111	World History I
HIS	1112	World History II
HIS	2111	US History I
HIS	2112	US History II
POL	1101	American Government

**General Education Electives****10-20**

Any degree level general education course may be used to fulfill this requirement

**Technical Elective Courses\*\*****10-20**

\*\*Technical Courses Options:

ACC	1101 (ACC 101)	Principles of Accounting I	6
ACC	1102 (ACC 102)	Principles of Accounting II	6
ACC	1103 (ACC 103)	Principles of Accounting III	6
BUS	1130 (BUS 101)	Document Processing	5
BUS	1140 (BUS 108)	Word Processing	5
BUS	1120 (BUS 148)	Business Document Proofreading and Editing	5
BUS	1160 (BUS 161)	Desktop Publishing	3
BUS	1170 (BUS 160)	Electronic Communications Applications	5
BUS	2150 (BUS 261)	Presentation Applications	5
CIS	1101	Fundamentals of Web Design	6
CIS	106	Computer Concepts	5
MKT	100	Introduction to Marketing	5
MKT	228	Advanced Marketing	5
MSD	100	Principles of Management	5
MSD	112	Introduction to Business and Economics	5
MSD	114	Organizational Communication and Information Technology	5
VCM	102	Creative Presentation Techniques	3
VCM	103	Advanced Presentation Techniques	3
VCM	121	Introduction to Computer Techniques	3

The total hours from General Education Electives and Technical Electives cannot exceed 30 hours. Total hours used for the TCC cannot exceed 58.

**Total Hours Required for TCC****48-58**

## **TECHNICAL STUDIES**

### **TECHNICAL STUDIES**

**THN3**

#### **Degree**

Availability: Multiple campus availability – check with the Admissions office

Program Purpose: A student who receives the Associate of Applied Science Degree – Technical Studies must have graduated from or be eligible to graduate from a diploma program in a field appropriate to the degree area. The AAS program requires a minimum of 90 quarter credit hours, to include a minimum of 30 credits in general education and 60 credits in occupational preparation.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the degree program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

#### **Curriculum**

#### **Courses**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
HUM	1101 (HUM 191)	Introduction to Humanities	
<b><u>Or</u></b>			
ENG	1102 (ENG 193)	Literature and Composition	5

##### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	
<b><u>Or</u></b>			
PSY	1101 (PSY 191)	Introduction to Psychology	5
SPC	1101 (SPC 191)	Fundamentals of Speech	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Math Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

**General Core Elective**

XXX	xxx	General Education Core Elective(s)	5
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**Occupational Courses**

SCT	100	Introduction to Microcomputers	3
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XXX	xxx	Completion of Required Courses for Diploma	57
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<b>Total Hours Required for Degree</b>			<b>90</b>
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## **TELEVISION PRODUCTION TECHNOLOGY**

### **TELEVISION PRODUCTION TECHNOLOGY Associate of Applied Science Degree**

**TPT3**

Availability: Mountain View Campus

Program Purpose: The Television Production Technology program is designed to allow students to gain education and training for careers in the television production field. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of technical courses and supporting courses. Graduates of the program will have a wide variety of job opportunities in the television production field in the areas of video, audio, lighting, animation, and non-linear editing.

Program Length: A full time student who needs no preparatory coursework in algebra, English, math or reading and maintains satisfactory progress can complete the Associate of Applied Science Degree in Television Production Technology in six quarters.

#### **Curriculum**

#### **Credits**

##### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
ENG	1102 (ENG 193)	Literature and Composition	5

##### **Area II – Social/Behavioral Sciences**

PSY	1101 (PSY 191)	Introduction to Psychology	5
SOC	1101 (SOC 191)	Introduction to Sociology	5
SPC	1101 (SPC 191)	Public Speaking	5

##### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Mathematical Modeling	5
		<b><u>Or</u></b>	
MAT	1111 (MAT 191)	College Algebra	5

##### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
ENT	100	Television Production I	5
ENT	101	Television Production II	5

ENT	102	Intermediate Multi-Camera Production	5
ENT	103	Digital Post-Production	5
ENT	104/DMP 102	Introduction to Graphics for Television	5
ENT	203	Intermediate Non-Linear Editing	5
ENT	204/DMP 202	Intermediate Graphics for Television	5
ENT	205	Field Video Production	5
ENT	207	Introduction to Audio	5
ENT	208	Intermediate Lighting and Grip Techniques	5
ENT	210	Writing for Television and Radio	5

### **Advanced Specialized Program Courses**

\*Select 20 hours from the following program courses:

ENT	206/DMP 206	Digital Animation	5
ENT	209/DMP 207	Intermediate Digital Animation	5
ENT	211	Survey of Mass Communications	5
ENT	212	Advanced Video Projects	5
ENT	213	Advanced Directing for Television	5
ENT	214	Aesthetics in Production	5
ENT	215	Entertainment Technology Internship	5-10

<b>Total Hours Required for Degree</b>	<b>108</b>
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## **VISUAL COMMUNICATIONS**

### **VISUAL COMMUNICATIONS Degree**

**CLO3**

Availability: North Metro Campus

Program Purpose: The purpose of the Visual Communications Associate of Applied Science degree program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of visual communications. The associate degree program is intended to expand the diploma program competencies and the employability and upward mobility of graduates.

The associate degree program is intended to produce graduates who are prepared for employment in art studios, in-plant art departments, advertising agencies, and other firms producing advertising and commercial art. Program graduates are to be competent in the general areas of humanities, social or behavioral sciences, and math.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the degree program in six quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **Area I – English/Humanities/Fine Arts**

ENG	1101 (ENG 191)	Composition and Rhetoric	5
HUM	1101 (HUM 191)	Introduction to Humanities	5

#### **Area II – Social/Behavioral Sciences**

ECO	1101 (ECO 191)	Principles of Economics	5
PSY	1101 (PSY 191)	Introduction to Psychology	5
ENG	1105 (ENG 195)	Technical communications	
<b><u>Or</u></b>			
SPC	1101 (SPC 191)	Public Speaking	5

#### **Area III – Natural Sciences/Mathematics**

MAT	1101 (MAT 190)	Math Modeling	
<b><u>Or</u></b>			
MAT	1111 (MAT 191)	College Algebra	5

### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
VCM	121	Introduction to Computer Graphics	3
VCM	124	Drawing	4
VCM	127	Design I	4
VCM	130	Publication Design	4
VCM	133	Typography	4
VCM	136	Digital Photo Editing	4
VCM	240	Portfolio/Presentation Exit Review	3
VCM	xxx	Visual communications Elective(s)	13
XXX	xxx	Elective(s)	8

**Choose one of the following two specializations:**

#### **Print Design Specialist**

VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
VCM	213	Printing and Print Production	4
VCM	216	Print Portfolio	4

#### **Website Design Specialist**

VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
VCM	236	Audio/Visual Portfolio	4

#### **Approved Electives:**

CAM	118	2D Computer Animation	6
DDF	112	3D Drawing and Modeling	6
DDF	120	Introduction to Animation	6
DDF	160	Introduction to Sequential Art and Storyboarding	3
DDF	162	Introduction to 3D Animation	6
MKT	100	Introduction to Marketing	5
MKT	108	Advertising	4
MKT	110	Entrepreneurship	8
MKT	205	Internet Marketing	5
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4

VCM	213	Printing and Print Production	4
VCM	221	Presentation Design	4
VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
<b>Total Hours Required for Degree</b>			<b>96</b>

## **VISUAL COMMUNICATIONS Diploma**

**CLO2**

Availability: North Metro Campus

Program Purpose: The purpose of the Visual Communications diploma program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in the field of visual communications. The Visual Communications program prepares students for employment in art studios, in-plant art departments, advertising agencies, and other firms producing advertising and commercial art. The Visual Communications program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program of study emphasizes both hand and computer generated commercial art products. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of visual communications. Graduates of the program receive a Visual Communications diploma.

Program Length: A full-time student with Regular Admission who maintains satisfactory progress can complete the diploma program in five quarters, but may require additional quarters depending upon quarter of entry and quarterly course availability.

### **Curriculum**

### **Credits**

#### **General Core Courses**

ENG	1010 (ENG 111)	Business English	5
ENG	1012 (ENG 112)	Business Communications	5
MAT	1011 (MAT 111)	Business Math	5

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
VCM	121	Introduction to Computer Graphics	3
VCM	124	Drawing	4
VCM	127	Design I	4
VCM	130	Publication Design	4
VCM	133	Typography	4

**Choose one of the following two specializations:**

#### **Print Design Specialist**

EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
VCM	213	Printing and Print Production	4
VCM	216	Print Portfolio	4
VCM	240	Portfolio/Presentation Exit Review	3
VCM	xxx	Visual Communications Elective(s)	13

### **Website Design Specialist**

EMP	1000 (EMP 100)	Interpersonal Relations and Professional Development	3
VCM	136	Digital Photo Editing	4
VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
VCM	236	Audio/Visual Portfolio	4
VCM	240	Portfolio/Presentation Exit Review	3
VCM	xxx	Visual communications Elective(s)	13

### **Approved Electives:**

CAM	118	2D Computer Animation	6
DDF	112	3D Drawing and Modeling	6
DDF	120	Introduction to Animation	6
DDF	160	Introduction to Sequential Art and Storyboarding	3
DDF	162	Introduction to 3D Animation	6
MKT	100	Introduction to Marketing	5
MKT	108	Advertising	4
MKT	110	Entrepreneurship	8
MKT	205	Internet Marketing	5
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
VCM	213	Printing and Print Production	4
VCM	221	Presentation Design	4
VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4

**Total Hours Required for Diploma** **76**

## COMPUTER ANIMATION TECHNICIAN Certificate

CAN1

Availability: North Metro Campus

Program Purpose: The Computer Animation Technician Certificate teaches students basic computer skills as well as basic fundamental skills in 3D animation. This certificate will prepare students for entry-level jobs in several areas of employment. Animation, advertising, design, and architectural firms are among the companies that employ graduates with the skills acquired in this technical certificate of credit.

### Curriculum

### Credits

#### General Core Courses

DDF	120	Introduction to Animation	6
DDF	160	Introduction to Sequential Art and Storyboarding	3
DDF	162	Introduction to 3D Animation	6
CAM	118	2D Computer Animation	6
XXX	xxx	Elective(s)	6

#### Approved Electives:

SCT	100	Introduction to Microcomputers	3
DDF	112	3D Drawing and Modeling	6
DDF	125	Digital Lighting	6
DDF	164	Character Animation	6
VCM	121	Introduction to Computer Graphics	3
VCM	124	Drawing	4
VCM	127	Design I	4
VCM	130	Publication Design	4
VCM	133	Typography	4
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
VCM	213	Printing and Print Production	4
VCM	221	Presentation Design	4
VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4

**Total Hours Required for TCC**

**27**

**PRINT GRAPHICS TECHNICIAN  
Certificate**

**PGH1**

Availability: North Metro Campus

Program Purpose: The purpose of the Print Graphics Technician certificate is to teach students the skills necessary to obtain entry level positions in print design and production.

**Curriculum**

**Credits**

**General Core Courses**

VCM	130	Publication Design	4
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
XXX	xxx	Elective(s)	7

**Approved Electives:**

CAM	118	2D Computer Animation	6
DDF	112	3D Drawing and Modeling	6
DDF	120	Introduction to Animation	6
DDF	160	Introduction to Sequential Art and Storyboarding	3
DDF	162	Introduction to 3D Animation	6
SCT	100	Introduction to Microcomputers	3
VCM	121	Introduction to Computer Graphics	3
VCM	124	Drawing	4
VCM	127	Design I	4
VCM	133	Typography	4
VCM	213	Printing and Print Production	4
VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4

**Total Hours Required for TCC** **23**

**WEB SITE DESIGN TECHNICIAN  
Certificate**

**WEG1**

Availability: North Metro Campus

Program Purpose: The purpose of the Web Site Design Technician certificate program is to help students develop the skills necessary to design web pages and web sites that incorporates web ready graphics and animation.

**Curriculum**

**Credits**

**General Core Courses**

VCM	224	Web Graphics	4
VCM	227	Introduction to Web Design	4
VCM	230	Web Animation	4
VCM	233	Advanced Web Design	4
XXX	xxx	Elective(s)	7

**Approved Electives:**

CAM	118	2D Computer Animation	6
CIS	2261	JavaScript Fundamentals	4
DDF	112	3D Drawing and Modeling	6
DDF	120	Introduction to Animation	6
DDF	160	Introduction to Sequential Art and Storyboarding	3
DDF	162	Introduction to 3D Animation	6
SCT	100	Introduction to Microcomputers	3
VCM	121	Introduction to Computer Graphics	3
VCM	124	Drawing	4
VCM	127	Design I	4
VCM	130	Publication Design	4
VCM	133	Typography	4
VCM	136	Digital Photo Editing	4
VCM	201	Vector Drawing	4
VCM	204	Advertising Layout and Design	4
VCM	221	Presentation Design	4

**Total Hours Required for TCC** **23**



## **WELDING AND JOINING TECHNOLOGY**

### **WELDING AND JOINING TECHNOLOGY Diploma**

**WJO2**

Availability: Appalachian Campus

Program Purpose: The Welding and Joining Technology program includes training in shielding metal arc, oxyacetylene, tungsten inert gas, metallic inert gas, oxyfuel gas cutting, plasma arc cutting, and gouging. Students also learn about metals, electrodes, and filler materials. Some classroom training is involved, but the major emphasis is development of welding skills through actual hands-on practice. Career Information: Welders are usually employed in metal working industries, auto-manufacturing companies, construction firms, or in the field of repair and maintenance. Potential positions include welder helpers, arc welder, oxyacetylene welder, gas shielded welder, repair welder, combination welder, fitter welder, production line welder, salvage welder, and welding-machine operator (or helper). Opportunities in welding exist for males and females.

Program Length: A full-time student who needs no preparatory coursework in English, math or reading and maintains satisfactory progress can complete the Welding and Joining Technology Diploma in six quarters.

### **Curriculum**

### **Credits**

#### **General Core Courses**

EMP	1000 (EMP 100)	Interpersonal Relations and Prof. Development	3
ENG	1010 (ENG 101)	Fundamentals of English I	5
MAT	1012 (MAT 101)	Foundations of Mathematics	5

#### **Occupational Courses**

SCT	100	Introduction to Microcomputers	3
WLD	100	Introduction to Welding Technology	6
WLD	101	Oxyfuel Cutting	4
WLD	103	Blueprint Reading I	3
WLD	104	Shielded Metal Arc Welding I	6
WLD	105	Shielded Metal Arc Welding II	6
WLD	106	Shielded Metal Arc Welding III	6
WLD	107	Shielded Metal Arc Welding IV	6
WLD	108	Blueprint Reading II	3
WLD	109	Gas Metal Arc Welding (GMAW/MIG)	6

WLD	110	Gas Tungsten Arc Welding (GTAW/TIG)	4
WLD	112	Preparation for Industrial Qualification	4
Xxx	xxx	Electives	5
<b>Total Hours Required for Diploma</b>			<b>75</b>

## COURSE DESCRIPTIONS

### **Course Abbreviations**

*Chattahoochee Technical College uses the following abbreviations to identify courses.*

<u>Course Name</u>	<u>Abbreviation</u>
Accounting .....	ACC
Air Conditioning Technology .....	ACT
Allied Health Sciences .....	AHS
American Government.....	POL
Art Appreciation.....	ART
Automotive Collision Repair .....	ACR
Automotive Technology.....	AUT
Biology.....	BIO
Biomedical Engineering Technology .....	BMT
Biomedical Instrumentation .....	BMI
Business.....	BUS
Certified Nursing Assistant .....	CNA
Chemistry .....	CHM
Clinical Laboratory Technology .....	CLT
Computer Information Systems.....	CIS
College Success .....	COL
Commercial Truck Driving .....	CTD
Computer Animation .....	CAM
Cosmetology .....	COS
Criminal Justice .....	CRJ
Culinary Arts.....	CUL
Diesel Equipment Technology .....	DET
Digital Media Production .....	DMP
Directed Individual Study.....	DIS
Drafting Mechanical.....	DDF
Drafting Architectural .....	DDS
Early Childhood Care & Education .....	ECE
Economics .....	ECO
Environmental Horticulture .....	EHO
Electrical Construction & Maintenance .....	ELT
Electronics & Computer Engineering Technology .....	EET
Electronics Fundamentals.....	ELC
Elder Care.....	GRN
Emergency Medical Technology .....	EMS

English .....	ENG
Esthetics .....	EST
Fashion Fundamentals .....	FSM
Finance .....	FIN
Fire Science Technology.....	FSC
History .....	HIS
Humanities .....	HUM
Imaging Science .....	ISA
Industrial Circuitry.....	IFC
Industrial Electrical Technology .....	ELT
Industrial Systems Technology .....	IDS
Interiors .....	INT
Interpersonal Relations and Professional Development .....	EMP
Lawn Equipment Repair .....	LER
Management & Supervisory Development .....	MSD
Marketing Management .....	MKT
Mathematics .....	MAT
Medical Assisting .....	MAS
Music Appreciation .....	MUS
Non-destructive Testing Technician .....	NDT
Nursing – Practical .....	NSG
Nursing Practicum.....	NPT
Paramedic Technology.....	EMS
Phlebotomy .....	PHL
Physical Therapy Assistant .....	PTA
Physics.....	PHY
PowerSports Equipment .....	PSE
Psychology .....	PSY
Radiology .....	RAD
Reading .....	RDG
Recreation Management .....	RLM
Science & Technology .....	SCT
Sociology .....	SOC
Speech .....	SPC
Sport Management .....	SPM
Surgical Technology .....	SUR
Television Production Technology.....	ENT
Visual Communications .....	VCM
Welding .....	WLD

Courses are arranged in alphabetical/numerical order. Credit hours for the courses and prerequisites/corequisites are specified in parentheses. Institutional Credit is designated for Learning Support courses by the letters I.C. following the number of credit hours. LEARNING

SUPPORT courses cannot be used for elective credit to meet graduation requirements. Unless otherwise specified, regular admission is a prerequisite for registration for all credit courses. **Hours listed after course description indicate (lecture-demo lab-practical lab-credit).**

### **Course Descriptions**

**ACC 1101 (ACC 101), Principles of Accounting I** (Credit: 6) (Prerequisite: Program admission) Introduces the basic concepts of the complete accounting cycle, and provides students with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle and accounting for a personal service business, the accounting cycle and accounting for a merchandising enterprise, and cash control. Laboratory work demonstrates theory presented in class. (4-4-0-6)

**ACC 1102 (ACC 102), Principles of Accounting II** (Credit: 6) (Prerequisite: Program admission, ACC 101 with C or better) Applies the basic principles of accounting to specific account classifications and subsidiary record accounting. Topics include: receivables, inventory, plant assets, payroll, payables, partnerships, and sales tax returns. Laboratory work demonstrates theory presented in class. (4-4-0-6)

**ACC 1103 (ACC 103), Principles of Accounting III** (Credit: 6) (Prerequisite: ACC 102 with C or better) Emphasizes a fundamental understanding of corporate and cost accounting. Topics include: accounting for a corporation, statement of cash flows, cost accounting, budgeting and long term liabilities. Laboratory work demonstrates theory presented in class. (4-4-0-6)

**ACC 1104 (ACC 104), Computerized Accounting** (Credit: 3) (Prerequisite: ACC 102 and SCT 100) Emphasizes operation of computerized accounting systems from manual input forms. Topics include: equipment use, general ledger, accounts receivable and payable, payroll, cash management, and financial reports. Laboratory work includes theoretical and technical application. (4-4-0-6)

**ACC 1106 (ACC 106), Spreadsheet Fundamentals** (Credit: 3) (Prerequisite: SCT 100 with a C or better; program ready math) Provides instruction in the use of electronic spreadsheet software packages for program-related spreadsheet applications. Students become proficient in creation, modification and combination of spreadsheets. Topics include: spreadsheet creation, data entry, data entry modification, computation using functions, and program-related spreadsheet applications. Laboratory work includes theoretical and technical application. (1-4-0-3)

**ACC 1151 (ACC 151), Individual Tax Accounting** (Credit: 5) (Prerequisite: Program admission) Provides instruction for preparation of both state and federal income tax. Topics include: taxable income, income adjustments, schedules, standard deductions, itemized deductions, exemptions, tax credits, and tax calculations. (4-2-0-5)

**ACC 1152 (ACC 152), Payroll Accounting** (Credit: 5) (Prerequisite: ACC 101 with a C or better; Corequisite: ACC 102) Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include: payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers, and analyzing and journalizing payroll transactions. (4-2-0-5)

**ACC 2105 (ACC 105), Database Applications** (Credit: 3) (Prerequisite: SCT 100) Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: database concepts structuring databases, entering data, organizing data, and managing databases. (1-4-0-3)

**ACC 2120 (ACC 120), Principles of Auditing** (Credit: 5) (Prerequisite: ACC 1103) Introduces the student to the auditor's responsibilities in the areas of professional standards, reports, ethics and legal liability. Students learn about the technology of auditing; evidence gathering, audit/assurance processes, internal controls, and sampling techniques. The specific methods of auditing the revenue/receipts process, disbursement cycle, personnel and payroll procedures, asset changes, and debt and equity are learned. Finally procedures related to attest engagements and internal auditing are reviewed. (5-0-0-5)

**ACC 2122 (ACC 122), Introduction to Governmental and Nonprofit Accounting** (Credit: 5) (Prerequisite: ACC 1103) Provides an introduction to financial reporting and accounting principles for state/local governments and nonprofit entities. (5-0-0-5)

**ACC 2150 (ACC 150), Cost Accounting** (Credit: 6) (Prerequisite: ACC 1103) Emphasizes a thorough understanding of cost concepts, cost behavior, and cost accounting techniques as they are applied to manufacturing cost systems. Topics include job order cost accounting, process cost accounting, and standard cost accounting. (4-4-0-6)

**ACC 2154 (ACC 154), Personal Finance** (Credit: 5) (Prerequisite: Program admission) Introduces practical applications of concepts and techniques used to manage personal finance. Topics include: budgeting, cash management, credit, housing, transportation, insurance, investments, retirement, and estate planning. (5-0-0-5)

**ACC 2155 (ACC 155), Legal Environment of Business** (Credit: 5) (Prerequisite: Program admission) Introduces law and its relationship to business. Topics include: legal ethics, legal processes, business contracts, business torts and crimes, real and personal property, agency and employment, risk-bearing devices, and Uniform Commercial Code. (5-0-0-5)

**ACC 2156 (ACC 156), Business Tax Accounting** (Credit: 5) (Prerequisite: ACC 101 and ACC 151 both with a C or better) Provides instruction for preparation of both state and federal partnership, corporation and other business tax returns. Topics include: organization form, overview of taxation of partnerships, special partnership issues, corporate tax elections, adjustments to income and expenses, tax elections, forms and schedules, tax credits, reconciliation of book and tax income, tax depreciation methods and tax calculations. (4-2-0-5)

**ACC 2157 (ACC 157), Integrated Accounting Management Systems** (Credit: 6) (Prerequisite: ACC 106, ACC 103 and ACC 104) Emphasizes use of database management packages, electronic spreadsheet packages, and accounting software packages for accounting/financial applications with more advanced systems. Topics include: creation and management of database applications, creation and management of spreadsheet applications, and creation and management of accounting integrated software systems. (2-8-0-6)

**ACC 2158 (ACC 158), Managerial Accounting** (Credit: 6) (Prerequisite: ACC 1103) Emphasizes the interpretation of data by management in planning and controlling business activities. Topics include:

budgeting, capital investment decisions, price level and foreign exchange, analysis of financial statements, and internal reporting. (4-4-0-6)

**ACC 2159 (ACC 159), Accounting Simulation (Accounting Capstone course)** (Credit: 5) (Prerequisite: All Accounting Fundamental Occupational Courses) Develops skills for the potential accountant to effectively prepare financial statements for presentations and income tax returns. Emphasis is placed on providing students with opportunities for application and demonstration of skills associated with automated accounting. Topics include: financial statement preparation, accounting system installation, automated accounting work sheet preparation, automated accounting income tax return preparation, and job search planning. (1-9-0-5)

**ACC 2160 (ACC 160), Advanced Spreadsheet** (Credit: 5) (Prerequisite: ACC 106 with C or better) Provides the fundamental, intermediate, and advanced Microsoft Excel competencies to provide user with the skills necessary to obtain the expert user certification. Topics include: spreadsheet creation, financial statements, forecast, amortization schedules, workgroup editing and advanced features such as macros, using charts, importing and exporting data, HTML creation, formulas, Web queries, built-in function, templates, and trends and relationships. (1-9-0-5)

**ACC 2164 (ACC 164), Bookkeeper Certification Review** (Credit: 6) (Prerequisite: Program admission or Instructor approval) Reviews the topics of adjusting entries, correction of accounting errors, payroll, depreciation and inventory. Prepares the students to take certification testing. (4-2-0-5)

**ACC 2165 (ACC 165), Capstone Review Course of Accounting Principles** (Credit: 6) (Prerequisite: ACC 101, ACC 102, ACC 103, ACC 151, ACC 152, and ACC 156 or 2-year Associate Degree in Accounting) Guides the student in dealing with ethics, internal control, fraud and financial statement analysis in the accounting environment which will require students to confront and resolve accounting problems by integrating and applying skills and techniques acquired from previous courses. Will prepare students in developing a personal code of ethics by exploring ethical dilemmas and pressures they will face as accountants. Will help the student understand financial statement analysis and the relation to fraud and fraud detection. Will prepare the student for the ACAT Comprehensive Examination for Accreditation in Accountancy. (4-4-0-6)

**ACC 2167 (ACC 107), Accounting Internship I** (Credit: 6) (Prerequisite: All non-elective courses required for program completion, advisor approval, and minimum 3.0 GPA) Provides in-depth application and reinforcement of accounting and employability principles in an actual job setting. Allows the student to become involved in intensive on-the-job accounting applications that require full-time concentration, practice, and follow-through. Topics include: appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and progressive productivity. The full-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, weekly documentation of seminars and/or other projects required by the instructor. (0-0-18-6)

**ACC 2168 (ACC 108), Accounting Internship II** (Credit: 12) (Prerequisite: All non-elective courses required for program completion, advisor approval, and minimum 3.0 GPA) Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations, and provides insights into accounting applications on the job. Topics include: appropriate work habits, acceptable job performance, application of accounting

knowledge and skills, interpersonal relations, and development of productivity. The half-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other projects as required by the instructor. (0-0-36-12)

**ACC 2207 (ACC 207), Principles of Fraud Examination** (Credit: 5) Students will learn the basic principles and theories of occupational fraud. The student will learn how opportunity, pressure, and rationalization link together to create the necessary elements present when fraudulent acts are committed. Fraudulent behavior can be prevented and/or detected through a variety of ways that the student will learn. There will be videos and short case studies, made available by the Association of Certified Fraud Examiners (ACFE), Topics covered include: fraud warning signals, identifying ways that firms can implement preventative measures, understanding schemes, identifying ways that firms can detect fraudulent activities. (5-0-0-5)

**ACR 100, Safety** (Credit: 1) (Prerequisite: Program admission) Procedures and practices necessary for safe operation of automotive collision repair facilities. Topics include safety devices, work facility safety and cleanliness, fire prevention, and environmental safety. (1-0-0-1)

**ACR 101, Automobile Components Identification** (Credit: 3) (Prerequisite/Corequisite: ACR 100) Introduces the structural configuration and identification of the structural members of various automotive unibodies and frames. Topics include unibody construction, frame types, stub frame types, body panels, and mechanical components. (3-1-0-3)

**ACR 102, Equipment and Hand Tools Identification** (Credit: 1) (Prerequisite/Corequisite: ACR 100) Introduces equipment and hand tools used in automotive collision repair. Topics include safety procedures, hand tools identification, power hand tools identification, air supply systems, and hydraulic systems. (1-1-0-1)

**ACR 104, Mechanical and Electrical Systems** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Introduces various mechanical and electrical systems requiring repair of damages incurred through automobile collisions. Topics include engine accessory systems, emission control systems, air conditioning systems, braking systems, steering column damage, engine removal and replacement sequence, lighting systems, engine wiring, power accessories systems, and restraint systems. (1-0-3-2)

**ACR 105, Body Fiberglass, Plastic, and Rubber Repair Techniques** (Credit: 3) (Prerequisites/Corequisites: ACR 100, ACR 101, and ACR 102) Provides instruction in non-metallic auto body repair techniques. Topics include cracked or splintered area repair, bonding agent usage, fiberglass and plastic body parts removal and replacement procedure, partial fiberglass header panel replacement procedure, plastics identification, plastic and rubber welding techniques, and Sheet Molded Compound (SMC) repairs. (1-2-5-3)

**ACR 106, Welding and Cutting** (Credit: 4) (Prerequisite/Corequisite: ACR 100) Introduces welding and cutting procedures used in auto collision repair. Emphasis will be placed on MIG welding techniques. Topics include MIG welding, oxyfuel welding, metal cutting techniques, resistance welding, unibody welding techniques, weld removal techniques, and safety procedures, and plasma arc cutting. (2-2-3-4)

**ACR 107, Trim, Accessories, and Glass** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Provides instruction in removal and replacement methods of a variety of non-structural cosmetic and safety



features of the automobile. Topics include interior and exterior trim, mirrors, weather stripping, stationary and nonstationary glass, interior components, fasteners, and safety procedures. (1-2-1-2)

**ACR 109, Damage Identification and Assessment** (Credit: 3) (Prerequisite/Corequisite: ACR 100) Introduces procedures and resources used in the identification and assessment of automotive collisions damages. Topics include assessment plan determination, damage analysis, collision estimation, services manual use, and computerized estimation. (2-2-0-3)

**ACR 110, Minor Collision Repair** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Introduces materials and operations required to repair minor collision damage. Topics include pick, file, and finish procedures; body repair materials identification; body fillers usage; disc grinder procedures; safety, and stud welders. (1-1-4-2)

**ACR 120, Conventional Frame Repair** (Credit: 3) (Prerequisite/Corequisite: ACR 100) Emphasizes the diagnosis, straightening, measurement, and alignment of conventional automobile and truck frames. Topics include alignment measurement systems; damage diagnosis; equipment types and usage; frame straightening, repair, and alignment; safety precautions, and computerized damage diagnosis. (1-2-3-3)

**ACR 121, Unibody Identification and Damage Analysis** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Provides instruction in the identification and analysis of various forms of unibody damage. Topics include collapse or buckle damage identification, sag damage identification, sideways damage identification, twist damage identification, secondary damage identification, and lift equipment usage and safety. (1-2-2-2)

**ACR 122, Unibody Measuring and Fixturing Systems** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Provides instruction in a variety of alignment measuring and fixturing systems. Topics include universal mechanical measuring system, universal laser measuring system, dedicated fixture system, upper body panel measurement, and English/metric tape alignment measurement. (1-1-3-2)

**ACR 123, Unibody Straightening Systems and Techniques** (Credit: 4) (Prerequisite/Corequisite: ACR 100) Introduces unibody straightening systems and techniques used in automotive collision repair. Topics include equipment types and usage, safety procedures, primary/rough and secondary damage pull, single pull correction, multiple pull correction, and impact or pull stress relief. (1-2-7-4)

**ACR 124, Unibody Welding Techniques** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Provides instruction in specific welding applications in automotive collision repair. Topics include MIG welding panel welding, plug weld collision repair, butt weld collision repair, lap weld collision repair, safety procedures, resistance welding, aluminum MIG welding, and aluminum TIG welding. (0-2-3-2)

**ACR 125, Unibody Structural Panel Repair and Replacement** (Credit: 3) (Prerequisite/Corequisite: ACR 100) Provides instruction in attachment methods, proper repair and replacement of structural panels, dimensional control, areas of high stress concentration, sectional principles, and crush zones. Selection and preparation of recycled parts will be emphasized. Topics include primary structure, rear cross member, apron and rails, trans X member, rocker, w/s posts, hinge pillar, center pillar, floor pan, spot weld removal, panel sectional cuts, and damaged panel removal and replacement. (1-2-3-3)

**ACR 126, Conventional Body Structural Panel Repair** (Credit: 5) (Prerequisite/Corequisite: ACR 100) Introduces conventional body structural panel repair. A variety of removal and replacement techniques are emphasized. Topics include partial or complete quarter panel removal and replacement, rocker panel removal and replacement, and center pillar post removal and replacement. (2-2-6-5)

**ACR 127, Unibody Suspension and Steering Systems** (Credit: 2) (Prerequisite/Corequisite: ACR 100) Provides instruction in unibody suspension and steering system damage analysis and repair. Topics include parallelogram suspension parts removal and replacement, rack and pinion steering system removal and replacement, damage analysis, quick check system damage determination, front end suspension equipment usage, and safety procedures. (2-1-2-2)

**ACR 128, Bolt-On Body Panel Removal and Replacement** (Credit: 4) (Prerequisite/Corequisite: ACR 100) Provides instruction in the removal and replacement of bolt-on automobile body panels. Topics include hood, deck panels, and header panels removal and replacement; fender removal and installation/coining; door removal and installation; headlamp and filler panels removal and replacement; grill removal and replacement; and headlamp adjustment. (2-2-3-4)

**ACR 129, Major Collision Repair Internship/Practicum** (Credit: 3) (Prerequisite/Corequisite: ACR 100) Provides occupation-based learning opportunities for students pursuing the Major Collision Repair specialization. Students will be mentored by qualified professional technicians as they experience working in the Automotive Collision Repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility. Topics include conventional frame repair, unibody damage identification and analysis, unibody measuring and fixturing systems, unibody straightening systems and techniques, unibody welding techniques, unibody structural panel repair and replacement, conventional body structural panel repair, unibody suspension and steering systems, and bolt-on body panel removal and replacement. (0-0-10-3)

**ACR 130, Sanding, Priming, and Paint Preparation** (Credit: 5) (Prerequisite/Corequisite: ACR 100) Introduces the materials and procedures involved in preparing automobile bodies for refinishing. Topics include featheredging; masking procedures; safety procedures; surface preparation; corrosion preventative application; primers, sealers, and primer surfacer applications; and spray gun operation and maintenance. (2-4-3-5)

**ACR 132, Special Refinishing Application** (Credit: 5) (Prerequisite/Corequisite: ACR 100) Provides instruction in the equipment, material, and techniques used in the application of special paints. Emphasis will be placed on automotive refinishing procedures. Topics include safety; paint identification; base metals preparation and priming; equipment use and maintenance; color application; original finish sealing; panel and spot repair and blending; thinners, reducers, and additives; and fiberglass, plastics, and rubber refinishing. (2-2-6-5)

**ACR 134, Urethane Enamels Refinishing Application** (Credit: 6) (Prerequisites/Corequisites: ACR 109 and ACR 136) Provides instruction in the equipment, material, and techniques used in the application of urethane enamels paint. Emphasis will be placed on automotive refinishing procedures. Topics include safety; paint identification; base metals preparation and priming; equipment use and maintenance; base coat/clear coat application; color application of solid and metallic finishes; original finish sealing; panel and spot repair and blending; thinners, reducers, and additives; and tri-coat finishing. (2-4-6-6)

**ACR 135, Tint and Match Colors** (Credit: 6) (Prerequisite/Corequisite: ACR 100) Introduces methods and techniques used in the process of color matching and production. Topics include tinting methods, gun techniques, variable adjustments, color flip-flop determination and correction, and reduction procedures. (2-8-0-6)

**ACR 136, Detailing** (Credit: 2) (Prerequisite/Corequisite: ACR 100 or ACR 132) Introduces the methods and techniques used in detailing a refinished automotive surface. Topics include finish analysis, color sanding, polishes and glazes, cleaning vehicle, and decal and stripes. (1-2-2-2)

**ACR 137, Paint and Refinishing Internship** (Credit: 3) (Prerequisites/Corequisites: ACR 130, ACR 132, ACR 134, ACR 135, and ACR 136) Provides occupation-based learning opportunities for students pursuing the paint and Refinishing specialization. Students will be mentored by qualified professional technicians as they experience working in the automotive collision repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility. Topics include sanding, priming, and paint preparation, special refinishing applications, urethane enamels, tint and match colors, detailing, and employability skills. (0-0-10-3)

**ACT 100, Refrigeration Fundamentals** (Credit: 4) (Prerequisites/Corequisites: IFC 100, MAT 101, and ENG 101 with a C or better; Advisor approval) Introduces basic concepts and theories of refrigeration. Topics include: laws of thermodynamics, pressure and temperature relationship, heat transfer, refrigeration cycle, and safety. (3-2-0-4)

**ACT 101, Principles and Practices of Refrigeration** (Credit: 7) (Prerequisite: ACT 100 with a C or better) Introduces the use of refrigeration tools and materials and procedures needed to install, repair, and service refrigeration systems. Topics include: refrigeration tools; piping practices; service valves; leak testing; evacuation; refrigerant recovery, recycling, and reclamation; charging; refrigerants; piping; fittings; and safety. (5-2-3-7)

**ACT 102, Refrigeration Systems Components** (Credit: 7) (Prerequisite: ACT 101 with a C or better) Provides students with the skills and knowledge to install, test, and service major components of a refrigeration system. Topics include: compressors, condensers, evaporators, metering devices, service procedures, refrigeration systems, and safety. (5-2-3-7)

**ACT 103, Electrical Fundamentals** (Credit: 7) (Prerequisite: Program admission) Introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include: A/C and D/C theory, electric meters, electric diagrams, electric panels, distribution systems, voltage circuits, code requirements, and safety. (5-2-3-7)

**ACT 104, Electric Motors** (Credit: 4) (Prerequisite: ACT 103 with a C or better) Continues the development of skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include: diagnostic techniques, installation procedures, capacitors, types of electric motors, electric motor service, and safety. (2-2-3-4)

**ACT 105, Electrical Components** (Credit: 5) (Prerequisite: ACT 103 with a C or better ) Provides instruction in identifying, installing, and testing commonly used electrical components in an air conditioning system. Topics include: pressure switches, overload devices, transformers, magnetic

starters, other commonly used controls, diagnostic techniques, installation procedures, and safety. (3-2-3-5)

**ACT 106, Electric Control Systems and Installation** (Credit: 4) (Prerequisite: ACT 105 with a C or better) Provides instruction on wiring various types of air conditioning systems. Topics include: control circuits, system wiring, solid-state controls, servicing procedures, and safety. (2-2-3-4)

**ACT 107, Air Conditioning Principles** (Credit: 8) (Prerequisite: ACT 102 with a C or better) Introduces fundamental theory and techniques needed to identify major components and functions of air conditioning systems. Instruction is given on types of air conditioning systems and use of instrumentation. Topics include: types of AC systems, heat-load calculation, duct design, air filtration, properties of air, psychometrics, and safety. (6-4-0-8)

**ACT 108, Air Conditioning Systems and Installation** (Credit: 3) (Prerequisites: ACT 102 and ACT 106 with a C or better ) Provides instruction in installation and servicing of residential air conditioning systems. Topics include: installation procedures, split systems, packaged systems, add-on systems, and safety. (2-0-3-3)

**ACT 109, Troubleshooting Air Conditioning Systems** (Credit: 7) (Prerequisite: ACT 108 with a C or better) Provides instruction in troubleshooting and repair of major components of a residential air conditioning system. Topics include: troubleshooting techniques, electrical controls, airflow, refrigeration cycle, and safety. (5-2-3-7)

**ACT 110, Gas Heating Systems** (Credit: 5) (Prerequisites: ACT 102 and ACT 106) Introduction to principles of combustion and service requirements for gas heating systems. Topics include: service procedures, electrical controls, gas valves, piping, venting, code requirements, principles of combustion, and safety. (2-2-6-5)

**ACT 111, Heat Pumps and Related Systems** (Credit: 6) (Prerequisites: ACT 102 and ACT 106 with a C or better) Provides instruction on the principles, application, and operation of a residential heat pump system. Topics include: installation procedures, servicing procedures, troubleshooting valves, electrical components, safety, geothermal ground source energy supplies, and dual fuels. (3-4-3-6)

**AHS 101, Anatomy and Physiology** (Credit: 5) (Prerequisite: Program admission; ENG 101 or ENG 191 with a C or better) Focuses on basic normal structure and function of the human body. Topics include: medical terms describing the human body, and structure and function of the human body. (5-0-0-5)

**AHS 102, Drug Calculation and Administration** (Credit: 3) (Prerequisite: MAT 101, *nursing only*) Uses basic mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, basic pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education. (2-2-0-3)

**AHS 103, Nutrition and Diet Therapy** (Credit: 2) (Prerequisite: Program admission, *nursing only*) A study of the nutritional needs of the individual. Topics include: nutrients, standard and modified diets, nutrition throughout the lifespan, and client education. (2-0-0-2)

**AHS 104, Introduction to Health Care** (Credit: 3) (Prerequisite: Provisional admission) Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health

care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: basic life support/CPR, basic emergency care/first aid and triage, vital signs, infection control, and blood-/air-borne pathogens. (2-0-3-3)

**AHS 109, Medical Terminology for Allied Health Science** (Credit: 3) (Prerequisite: Provisional admission) Introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include: origins, (roots, prefixes, and suffixes) word building, abbreviations and symbols, terminology related to human anatomy, reading medical orders and reports, and terminology specific to the student's field of study. (3-0-0-3)

**ART 1101 (ART 191), Art Appreciation** (Credit: 5) (Prerequisite: ENG 1101 with a grade of C or higher) Explores the analysis of well-known works of visual arts, their composition, and the relationship to their periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research. Topics include: the re-creative critical process, the themes of art, the formal elements of design, and the placing of art in the historical context, writing analysis, practice, revision, and research about a work of visual arts. (5-0-0-5)

**AUT 120, Introduction to Automotive Technology** (Credit: 3) (Prerequisite: Provisional admission) Introduces basic concepts and practices necessary for safe and effective automotive shop operation. Topics include: safety procedures; legal/ethical responsibilities; measurement; machining; hand tools; and shop organization, management, and work flow systems. (2-0-3-3)

**AUT 122, Electrical and Electronic Systems** (Credit: 6) (Prerequisite: AUT 120) Introduces automotive electricity. Topics include: general electrical system diagnosis; lighting systems diagnosis and repair; gauges, warning devices, and driver information system diagnosis and repair; horn and wiper/washer diagnosis and repair; accessories diagnosis and repair. (4-0-6-6)

**AUT 124, Battery, Starting, and Charging Systems** (Credit: 4) (Prerequisite: AUT 122) Emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators, and regulators. Topics include: battery diagnosis and service; starting system diagnosis and repair; charging system diagnosis and repair. (2-0-6-4)

**AUT 126, Engine Principles of Operation and Repair** (Credit: 6) (Prerequisite: AUT 120) Introduces automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques. Topics include: general diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis or repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair. (3-0-9-6)

**AUT 128, Fuel, Ignition, and Emission Systems** (Credit: 7) (Prerequisites: AUT 122, AUT 124, and AUT 126 with C or better) Introduces fuel, ignition, and exhaust systems theory, diagnosis, repair, and service for vehicles with carburetion and fuel injection systems. Topics include: general engine diagnosis; ignition system diagnosis and repair; fuel, air induction, and exhaust systems diagnosis and repair; positive crankcase ventilation; exhaust gas recirculation; engine related service. (5-0-6-7)

**AUT 130, Automotive Brake Systems** (Credit: 4) (Prerequisite: AUT 122) Introduces Brake systems theory and its application to automotive systems. Topics include: hydraulic system diagnosis and

repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous (wheel bearings, parking brakes, electrical, etc.) diagnosis and repair. (3-0-3-4)

**AUT 132, Suspension and Steering Systems** (Credit: 4) (Prerequisite: AUT 122 with C or better) Introduces students to principles of steering, suspension, wheel alignment, electronic steering, and electronic active suspension. Topics include: steering systems diagnosis and repair; suspension systems diagnosis and repair; wheel alignment diagnosis, adjustment and repair; wheel and tire diagnosis and repair. (3-0-3-4)

**AUT 134, Drivelines** (Credit: 4) (Prerequisite: AUT 122 with C or better) Introduces basics of rear-wheel drive, front-wheel drive, and four-wheel drive driveline-related operation, diagnosis, service, and related electronic controls. Topics include: drive shaft and half shaft, universal and constant-velocity (CV) joint diagnosis and repair; ring and pinion gears and differential case assembly; limited slip differential; drive axle shaft; four-wheel drive/all-wheel drive component diagnosis and repair. (2-0-6-4)

**AUT 138, Manual Transmission/Transaxle** (Credit: 4) (Prerequisite: AUT 122) Introduces basics of front- and rear-wheel drive. Clutch operation, diagnosis and service is included. Electronic controls related to transmission/transaxle operation are discussed. Topics include: clutch diagnosis and repair; transmission/transaxle diagnosis and repair. (3-0-3-4)

**AUT 140, Electronic Engine Control Systems** (Credit: 7) (Prerequisite: AUT 128 with C or better) Introduces concept of electronic engine control. Topics include: computerized engine controls diagnosis and repair; intake air temperature controls; early fuel evaporation (intake manifold temperature) controls; evaporative emissions controls. (6-0-3-7)

**AUT 142, Climate Control Systems** (Credit: 6) (Prerequisite: AUT 122 with C or better) Introduces the theory and operation of automotive heating and air conditioning systems. Students attain proficiency in inspection, testing, service, and repair of heating and air conditioning systems and related components. Topics include: a/c system diagnosis and repair; refrigeration system component diagnosis and repair; heating, ventilation, and engine cooling systems diagnosis and repair; operating systems and related controls diagnosis and repair; refrigerant recovery, recycling, and handling. (5-0-3-6)

**AUT 144, Introduction to Automatic Transmissions** (Credit: 4) (Prerequisite: AUT 122) Introduces students to basic transmission/transaxle theory, inspection, and service procedures. Focuses on minor in-car adjustments, replacements, and repair. Topics include: general transmission and transaxle diagnosis; transmission and transaxle maintenance and adjustment; in-vehicle transmission and transaxle repair. (3-0-3-4)

**AUT 210, Automatic Transmission Repair** (Credit: 7) (Prerequisite: AUT 144 with a C or better) Introduces automatic transmission hydraulic/mechanical operations, transmission repair, and automatic transmission hydraulic/mechanical diagnosis. Topics include: removal, disassembly, and reinstallation; oil pump and converter; gear train, shafts, bushings and case; friction and reaction units. (5-0-6-7)

**AUT 212, Advanced Electronic Transmission Diagnosis** (Credit: 3) (Prerequisite: AUT 210) Introduces automatic transmission hydraulic/mechanical and electronic diagnosis and repair. Topics include: electronically controlled automatic transmission, automatic transmission electrical and electronic problem diagnosis and repair. (2-0-3-3)

**AUT 214, Advanced Electronic Controlled Brake System Diagnosis** (Credit: 4) (Prerequisite: AUT 130) Introduces anti-lock brake system (ABS) to include ABS components and ABS operation, testing, and diagnosis. Topics include: general brake and anti-lock brake systems diagnosis and testing, light truck rear anti-lock brake system, and four-wheel anti-lock brake system locations, components, and operation. (3-0-3-4)

**AUT 216, Advanced Electronic Controlled Suspension and Steering Systems** (Credit: 4) (Prerequisite: AUT 132) Introduces principles of electronic suspension, electronic steering, and electronic active suspension. Topics include: electronic steering systems diagnosis and adjustment/repair; and diagnosis of electrical and electronic controlled steering and suspension systems. (3-0-3-4)

**AUT 218, Advanced Electronic Engine Control Systems** (Credit: 4) (Prerequisite AUT 140) Introduces On-Board Diagnostics II (OBD II), California Air Research Board (CARB) requirements and monitoring technology, diagnostic trouble code definitions, and essentials of advanced drivability diagnosis and data interpretation using a scanner. Topics include: OBD II standards; monitoring capabilities; OBD II diagnostics; OBD II terms. (3-0-3-4)

**AUT 220, Automotive Technology Internship** (Credit: 6) (Prerequisite: AUT 128) Provides student work experience in the occupational environment. Topics include: application of automotive technology knowledge and skills, appropriate employability skills, problem solving, adaptability to job setting, progressive productivity, and acceptable job performance. (0-0-18-6)

**BIO 1111 (BIO 191), Biology I** (Credit: 5) (Prerequisite: ENG 1101 with a C or better.) Provides an introduction to basic biological concepts with a focus on living cells. Topics include: chemical principles related to cells; cell structure and function; energy and metabolism; cell division; protein synthesis; genetics; biotechnology; and use of basic laboratory techniques and equipment. (4-0-3-5)

**BIO 1112 (BIO 192), Biology II** (Credit: 5) (Prerequisite: BIO 1111) This a second part of a ten hour sequence. This course provides an introduction to basic evolutionary concepts. Also the course emphasizes animal and plant diversity, structure and function, including reproduction and development, as well as, the dynamics of ecology as it pertains to populations, communities, ecosystems, and biosphere. Topics include: principles of evolution; classification and characterization of organisms; plant structure and function; animal structure and function; principle of ecology; and biosphere. Laboratory experience supports classroom learning. (4-0-3-5)

**BIO 2113 (BIO 193), Anatomy and Physiology I** (Credit: 5) (Prerequisite: ENG 1101 with a C or better) Introduces anatomy and physiology of the human body. Emphasis is placed on the development of a systematic perspective of anatomical structures and physiological processes. Topics include: body organization; cell structure and functions; tissue classifications; the integumentary system; the skeletal system; the muscular system; the nervous and sensory systems. Laboratory experiences support classroom learning. (4-0-3-5)

**BIO 2114 (BIO 194), Anatomy and Physiology II** (Credit: 5) (Prerequisite: BIO 2113 with a C or better) Continues the study of the anatomy and physiology of the human body. Topics include: the endocrine system; cardiovascular system; blood and lymphatic systems; immune system; respiratory system; digestive system; urinary system; and reproductive system. Laboratory experience supports classroom learning. (4-0-3-5)

**BIO 2117 (BIO 197), Introductory Microbiology** (Credit: 5) (Prerequisite: BIO 2114 with a C or better) Provides students with a foundation in basic microbiology with emphasis on infectious diseases. Topics include: microbial diversity; microbial cell biology; microbial genetics; interactions and impact of microorganisms and humans; microorganisms and human disease; and laboratory skills. (4-0-3-5)

**BMI 232, Medical Equipment – Function and Operation I** (Credit: 4) (Prerequisites/Corequisites: AHS 101, BMI 231 and/or BMI 233) Introduces the study of electromechanical systems currently in use throughout the health care field. Provides an overview of typical biomedical instruments used in the field. Topics include: monitors, ECG machines, intensive care units, coronary care units, operating room equipment, and telemetry systems. (3-0-3-4)

**BMI 233, Internship – Medical Systems I** (Credit: 5) (Prerequisites/Corequisites: AHS 101, BMI 231 and/or BMI 232) Introduces the student to an on-site learning experience at an operating biomedical equipment section of a health care facility. Supervision of the intern is shared by the working environment supervisor and the faculty advisor. Internist performance is evaluated at weekly seminars. Topics include: problem solving, use of proper interpersonal skills, interpreting work authorizations, identifying logistical support requirements, servicing biomedical instruments, evaluating operating cost, and professional development. (1-0-12-5)

**BMI 242, Medical Equipment – Function and Operation II** (Credit: 3) (Prerequisite: BMI 232) Continues the study of electromechanical systems currently in use throughout the health care field. Topics include: life support equipment, respiratory instrumentation, measuring brain parameters, medical ultrasound, electrosurgery units, and hemodialysis machines. (3-0-0-3)

**BMI 243, Internship – Medical Systems II** (Credit: 5) (Prerequisite: BMI 233) Continues student on-site learning experience at an operating biomedical equipment section of a health care facility. Supervision of the intern is shared by the working environment supervisor and the faculty advisor. Internist performance is evaluated at weekly seminars. Topics include: problem solving, use of proper interpersonal skills, interpreting work authorizations, identifying logistical support requirements, servicing biomedical instruments, evaluating operating cost, and professional development. (1-0-12-5)

**BMT 231, Safety in Health Care Facilities** (Credit: 5) (Prerequisite: EET 101) This course emphasizes the examination, study, and review of safety codes and procedures within the health care field. Provides for an observation of safety practices employed in health care facilities. Topics include: JCAHO, BRH, CAP, OSHA, NFPA, and AAMI codes; first aid and CPR; electrical, fire, and radiation safety; infectious control; and hazardous communications. (5-0-0-5)

**BMT 232, Medical Equipment – Function and Operation I** (Credit: 5) (Prerequisite: BMT 231) This course introduces the study of electromechanical systems currently in use throughout the health care field. Provides an overview of typical biomedical instruments used in the field. Topics include: monitors, intensive care units, coronary care units, operating room equipment, telemetry systems, and ECG machines. (4-0-3-5)

**BMT 233, Internship—Medical Systems I** (Credit: 6) (Prerequisite: BMT 232) This course introduces the student to an on-site learning experience at an operating biomedical equipment section of a health care facility. Supervision of the intern is shared by the working environment supervisor and the faculty advisor. Internist performance is evaluated at weekly seminars. Topics include: problem solving, use of



proper interpersonal skills, interpreting work authorizations, identifying logistical support requirements, servicing biomedical instruments, evaluating operating cost, and professional development. (2-0-12-6)

**BMT 242, Medical Equipment—Function and Operation II** (Credit: 5) (Prerequisite: BMT 232) Continues the study of electromechanical systems currently in use throughout the health care field. Topics include: life support equipment, respiratory instrumentation, measuring brain parameters, medical ultrasound, electrosurgery units, and hemodialysis machines. (5-0-0-5)

**BMT 243, Internship—Medical Systems II** (Credit: 5) (Prerequisite: BMT 233) Continues student on-site learning experience at an operating biomedical equipment section of a health care facility. Supervision of the intern is shared by the working environment supervisor and the faculty advisor. Internist performance is evaluated at weekly seminars. Topics include: problem solving, use of proper interpersonal skills, interpreting work authorizations, identifying logistical support requirements, servicing biomedical instruments, evaluating operating cost, and professional development. (1-0-12-5)

**BUS 1100 (BUS 100), Introduction to Keyboarding** (Credit: 3) This course introduces the touch system of keyboarding placing emphasis on correct techniques. Topics include: computer hardware, computer software, file management, learning the alphabetic keyboard, the numeric keyboard and keypad, building speed and accuracy, and proofreading. Students attain a minimum of 25 GWAM (gross words a minute) on 3-minute timings with no more than 3 errors. (1-4-0-3)

**BUS 1120 (BUS 148), Business Document Proofreading and Editing** (Credit: 3) (Prerequisites: BUS 101 and ENG 111 or ENG 101 or ENG 191) Emphasizes proper proofreading and editing as applied to business documents. Topics include: applying proofreading techniques and proofreader's marks with business documents; proper content, clarity, and conciseness in business documents; and business document formatting. (1-4-0-3)

**BUS 1130 (BUS 101), Document Processing** (Credit: 6) (Prerequisite: The ability to key at least 25 wpm or BUS 100; Corequisite: SCT 100) Reinforces the touch system of keyboarding placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents, language arts, proofreading, and work area management. (2-8-0-6)

**BUS 1140 (BUS 108), Word Processing** (Credit: 5) (Prerequisite: SCT 100) Emphasizes an intensive use of word processing software to create and revise business documents. Topics include: creating, organizing, and formatting content; collaborating on documents; formatting and managing documents. (2-6-0-5)

**BUS 1150 (BUS 105), Database Applications** (Credit: 3) (Prerequisite: SCT 100) Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: database concepts structuring databases, entering data, organizing data, and managing databases. (1-4-0-3)

**BUS 1160 (BUS 161), Desktop Publishing** (Credit: 3) (Prerequisite: SCT 100) Emphasizes intensive use of desktop publishing (DTP) software to create publications such as letterheads, resumes, fliers, posters, brochures, reports, newsletters, and business cards. Topics include: DTP concepts, operation of DTP software, publication page layout, basic graphic design, and practical applications. (1-4-0-3)

**BUS 1170 (BUS 160), Electronic Communication Applications** (Credit: 5) (Prerequisite: SCT 100) Provides an overview of electronic communications as used in an office setting. Topics include: e-mail fundamentals and management, using the Internet, system user security, and wireless/mobile computing and emerging technologies. (2-6-0-5)

**BUS 1240 (BUS 106), Office Procedures** (Credit: 5) (Prerequisite: SCT 100) Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, workplace mail, records management, travel/meeting arrangements, electronic mail, and workplace documents. (2-6-0-5)

**BUS 1300 (BUS 151), Introduction to Business** (Credit: 5) (Prerequisite: Program admission) Introduces organization and management concepts of the business world and in the office environment. Topics include: business in the global economy, starting and organizing a business, enterprise management, marketing strategies and financial management. (5-0-0-5)

**BUS 2110 (BUS 201), Advanced Word Processing** (Credit: 5) (Prerequisite: BUS 108) Course provides instruction in advanced word processing. Topics include: advanced features of formatting and organizing content, advanced features of collaborating on documents and customizing word processing software. (2-6-0-5)

**BUS 2120 (BUS 202), Spreadsheet Applications** (Credit: 3) (Prerequisite: SCT 100) Provides instruction in the use of electronic spreadsheet software in business applications. Students become proficient in creating and modifying spreadsheets in a business environment and in printing files that meet business standards. Topics include: spreadsheet concepts, data entry and modification, analyzing data, charts and graphs, formatting data and content and managing workbooks. (1-4-0-3)

**BUS 2130 (BUS 260), Advanced Spreadsheet Applications** (Credit: 3) (Prerequisite: BUS 202) Provides a study of the advanced features of creating and modifying electronic spreadsheets. Topics include: integration with other applications, using templates, printing workbooks, working with named ranges, working with toolbars, using macros, auditing a worksheet, formatting data, using analysis tools, and collaborating with workgroups. (1-4-0-3)

**BUS 2140 (BUS 252), Advanced Database Applications** (Credit: 3) (Prerequisite: BUS 1150) Provides advanced instruction in database software. Topics include advanced database software applications, such as advanced queries, forms and reports, data access, data manipulation, database creation, external databases, macro and module creation, and integrating with other applications. (1-4-0-3)

**BUS 2150 (BUS 261), Presentation Applications** (Credit: 3) (Prerequisite: SCT 100) This course provides a study of creating, modifying and delivering presentations. Topics include: creating a presentation, formatting content, collaborating with others, managing a presentation, creating output and delivering a presentation. (1-4-0-3)

**BUS 2160 (BUS 263), Electronic Mail Applications** (Credit: 3) (Prerequisites: Program admission and SCT 100) This course provides instruction in the fundamentals of communicating with others inside and outside the organization via a personal information management program. Emphasizes the concepts necessary for individuals and workgroups to organize, find, view, and share information via electronic

communication channels. Topics include: Internal and External Communication, Message Management, Calendar Management, Navigation, Contact Usage, Tasks Usage, Notes Usage, Journal Usage, and Security and Privacy. (1-4-0-3)

**BUS 2210 (BUS 109), Applied Office Procedures (Business Capstone Course)** (Credit: 5) (Prerequisites: BUS 101, BUS 106, BUS 108, and BUS 202; Corequisites: BUS 208 or ACC 101, BUS 148, BUS 160) This course focuses on applying knowledge and skills learned in all prior courses taken in the program. Topics include: communications skills, telecommunications skills, records management skills, office equipment/supplies, and integrated programs/applications. Serves as a capstone course. (2-6-0-5)

**BUS 2240 (BUS 204), Business Administrative Assistant Internship I** (Credit: 6) (Prerequisite: Must be in last quarter of program. With advisor approval, may take concurrently with last quarter courses.) Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements. (0-0-18-6)

**BUS 2250 (BUS 224), Business Administrative Assistant Internship II** (Credit: 12) (Prerequisite: Must be in last quarter of program. With advisor approval, may take concurrently with last quarter courses.) Provides student work experience in an off-campus business office. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Office Technology program faculty and/or persons designated to coordinate work experience arrangements. (0-0-36-12)

**BUS 2320 (BUS 213), Medical document Processing/Transcription** (Credit: 5) (Prerequisites: BUS 1130, ENG 1010, BUS 2300 or AHS 109, AHS 1010 or AHS 101 or BUS 2310) Provides experience in medical machine transcription working with the most frequently used medical reports. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, and pronunciation. (1-6-3-5)

**BUS 2330 (BUS 214), Advanced Medical Document Processing** (Credit: 5) (Prerequisite: BUS 2320) Continues the development of speed and accuracy in the transcription of medical reports with emphasis on a variety of medical specialization. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, pronunciation, and medical transcription work ethics. (1-6-3-5)

**BUS 2340 (BUS 216), Medical Administrative Procedures** (Credit: 5) (Prerequisites: BUS 1130; BUS 2310 or AHS 1010 or AHS 101, BUS 2300 or AHS 109, SCT 100) Emphasizes essential skills required for the medical office. Introduces the knowledge and skills of procedures for billing purposes. Introduces the basic concept of medical administrative assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical administrative assistant's role as an agent of the physician. Provides the student with knowledge and the essentials of professional behavior. Topics include: introduction to medical administrative assisting, medical law, ethics, patient relations/human relations, physician-patient-assistant relationship, medical office in litigation, medical records management, scheduling appointments, pegboard or computerized accounting, health insurance, transcription of medical documents, and billing/collection. (3-2-3-5)

**BUS 2370 (BUS 226), Medical Office Billing/Coding/Insurance** (Credit: 5) (Prerequisites: BUS 1130, BUS 2300 or AHS 109, BUS 2310 or AHS 101) Provides an introduction to medical coding skills and applications of international coding standards for billing of health care services. Provides the knowledge and skills to apply coding of diagnostic statements and procedures for billing purposes. Provides an introduction to medical coding as it relates to health insurance. Topics include: International classification of diseases, code book formats; coding techniques; formats of the ICD and CPT manuals; health insurance; billing, reimbursement, and collections; and managed care. (3-2-3-5)

**CAM 118, 2D Computer Animation** (Credit: 6) In 2D Computer Animation, the student gains a basic understanding of the process for the creation of two-dimensional animation sequences. Students create storyboards and use 2D animation software to create on-screen animations. This course focuses on the completion of a student's storyboard into a linear or non-linear animation. Topics include: pre-produced and storyboarding elements, cinematic control, input/output, sound, and lip synchronization. (2-8-0-6)

**CHM 1111 (CHM 191), Chemistry I** (Credit: 5) (Prerequisite: ENG 1101 with a C or better; Corequisite: MAT 1101 or MAT 1111) Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include: measurement; physical and chemical properties of matter; atomic structure; chemical bonding; nomenclature; chemical reactions; stoichiometry and gas laws; basic laboratory skills and lab safety procedures. (4-0-3-5)

**CHM 1112 (CHM 192), Chemistry II** (Credit: 5) (Prerequisite: CHM 1111) Continues the exploration of basic chemical principles and concepts. Topics include: equilibrium theory; kinetics; thermodynamics; solution chemistry; acid-base theory; and nuclear chemistry. (4-0-3-5)

**CHM 1213 (CHM 193), Survey of Inorganic Chemistry** (Credit: 5) (Prerequisite: MAT 1111) Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include: measurements and units; structure of matter; chemical bonding; chemical reactions; gas laws; liquid mixtures; acids and bases; salts and buffers; nuclear chemistry; basic laboratory skills and safety procedures. (4-0-3-5)

**CHM 1214 (CHM 194), Survey of Organic Chemistry and Biochemistry** (Credit: 5) (Prerequisite: CHM 1112 or CHM 1213) Provides an introduction to organic chemistry and biochemistry. This survey will include an overview of the properties, structure, nomenclature, reactions of: hydrocarbons; alcohols, phenols, ethers, halides, aldehydes, ketones, carboxylic acids, esters, amines, amides; the properties, structure, and function of carbohydrates, lipids, proteins, and enzymes, as well as, intermediary metabolism. Topics include: basic principles; hydrocarbons; hydrocarbon derivatives; heterocyclic rings and alkaloids; carbohydrates; lipids and fats; proteins; nucleic acids; and intermediary metabolism. Laboratory experience supports classroom learning. (4-0-3-5)

**CIS 103, Operating Systems Concepts** (Credit: 6) (Prerequisite: SCT 100) Provides an overview of operating systems functions and commands that are necessary in a micro/mainframe computer working environment. Topics include: multiprogramming, single and multi-user systems, resource management, command languages, and operating system utilities, file system utilization and multiple operating systems. (4-4-0-6)

**CIS 105, Program Design and Development** (Credit: 5) (Prerequisites: CIS 106 and MAT 1013 or higher, all with C or better) Provides an emphasis on business problem identification and solution through systems of computer programs using such tools as structure charts, flowcharts, and pseudo-code.

Topics include: problem solving process, fundamentals of structured programming, program development building blocks, fundamentals of file and report structure, and business application structure. (5-0-0-5)

**CIS 106, Computer Concepts** (Credit: 5) (Prerequisite: Program Admission) Provides an overview of computers and information processing. Topics include: computer history and terminology, data representation, data storage concepts, fundamentals of information processing, fundamentals of hardware operation, fundamentals of communications and networking, structured programming concepts, program development methodology, system development methodology, and computer number systems. (5-0-0-5)

**CIS 112, Systems Analysis and Design** (Credit: 6) (Prerequisite: CIS 105 with a C or better) Provides a review and application of systems life cycle development methodologies implemented by project teams. Topics include: role of systems analysis and design, preliminary investigation, systems analysis phase, systems design phase, systems development phase, implementation and evaluation, and post-implementation systems operation. (4-4-0-6)

**CIS 122, Microcomputer Installation and Maintenance** (Credit: 7) (Prerequisites: SCT 100, Co-requisite: CIS 103) Provides an introduction to the fundamentals of installing and maintaining microcomputers. Topics include: identifying components and their functions, safety, installation procedures, troubleshooting techniques, and preventive maintenance. (4-6-0-7)

**CIS 149, Advanced C++ Programming** (Credit: 7) (Prerequisite: CIS 282 with a C or better) Introduces object-oriented programming. Common elements of Windows applications will be discussed and created using a C++ integrated development environment. Topics include: object oriented programming, Windows applications, user interface design, capturing and validating input, event-driven programming design, conditional processing, and incorporating graphics. (4-6-0-7)

**CIS 214, Database Management** (Credit: 6) (Prerequisites: *Any Programming Language Course* with a C or better) Provides an overview of the skills and knowledge of database application systems which are used in business, government, and industry. Topics include: history, database terminology and concepts, database system logical organization, data manipulation, database design concepts, models, normalization, Entity Relationship diagramming, physical database, networking and databases, and database security. (4-4-0-6)

**CIS 252, Introduction to Java Programming** (Credit: 7) (Prerequisite: CIS 105 with C or better) This course is designed to teach the basic concepts and methods of objected-oriented design and Java programming. Use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK and Notepad as an editor. Continue to develop student's programming logic skills. Topics include: JAVA Language History, JAVA Variable Definitions, JAVA Control Structures, JAVA Methods, JAVA Classes, JAVA Objects, and JAVA Graphics. (4-6-0-7)

**CIS 255, Introduction to C Programming** (Credit: 7) (Prerequisite: CIS 105 with C or better) Provides opportunity to gain a working knowledge of C programming. Includes creating, editing, executing, and

debugging C programs of moderate difficulty. Topics include: basic C concepts, simple I/O and expressions, I/O and control statements, and managing data and developing programs. (4-6-0-7)

**CIS 256, Advanced C Programming** (Credit: 7) (Prerequisite: CIS 255 with C or better) Covers theory and practice in developing advanced skills in C programming. Topics include: pointers, function, arrays; file input/output; BIOS and system service level operations; and program design and development.

**CIS 276, Advanced Routers and Switches** (Credit: 6) (Prerequisite: CIS 2322 with a C or better) Introduces LAN design, LAN switching and switch segmentation, advanced routing, and multiple protocols. Topics include: TCP/IP protocol suite, basic routing, local area network (LAN) switching, virtual local area networks (VLANs), local area network (LAN) design, interior gateway routing protocols (EIGRP and OSPF), and access control lists. (4-4-0-6)

**CIS 277, WAN Design – Capstone Course for CIS Networking(Cisco) Majors**(Credit: 6) (Prerequisite: CIS 276 with a C or better; *also requires Advisor's approval*) Emphasizes WAN design utilizing point-to-point protocol (PPP), integrated services digital network (ISDN), and frame relay. Topics include: wide area network, wide area network design, point-to-point protocol, integrated services digital network (ISDN), and frame relay. (4-4-0-6)

**CIS 280, Advanced Systems Projects – Capstone Course for CIS Programming Majors** (Credit: 7) (Prerequisite: at least one Intermediate or Advanced programming course with a C or better; *also requires Advisor's approval*) This course provides a capstone programming project experience using the programming language of choice. Topics include: teamwork and project management skills, systems analysis and design, programming and problem solving in language of choice, and system startup and debugging. (4-6-0-7)

**CIS 282, Introduction to C++ Programming** (Credit: 7) (Prerequisite: CIS 105 with C or better) Develops skills for students to write programs using the language of C++. Emphasis is placed on utilizing the added features of C++ which will be added to the skills mastered in Programming with C. Topics include: functions, objects, classes, inheritance, overloading, polymorphism, streams, and containers. (4-6-0-7)

**CIS 286, CompTIA A+ Preparation** (Credit: 7) (Prerequisite: CIS 122 with a C or better) Provides students with the fundamentals of configuring, installing, diagnosing, repairing, upgrading and maintaining computers and their peripherals. To fundamentally prepare the student for the CompTIA A+ Certification Exam. Topics include: Core Modules, Dos/Windows Operating Systems, PC Hardware and configuration, Peripherals, Preventive maintenance, Customer Interaction, Virus protection, Safety and Electrostatic Discharge, and Networks. (4-6-0-7)

**CIS 1104, Web Graphics using Adobe Photoshop** (Credit: 4) (Prerequisite: Program Admission) This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include understand file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codes, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects. (3-2-0-4)

**CIS 1105, E-Commerce Tools** (Credit: 4) (Prerequisite: CIS 2301 with a C or better) This course provides an overview of current E-Commerce development tools. Topics include an overview of current tools, and creation of E-Commerce Web Sites using available tools. Tools used include Microsoft Commerce

Server, and current web site E-Commerce tools. Topics include: overview of current E-Commerce Tools, creating a Microsoft E-Commerce web site, creating a web site using current web site E-Commerce tools, and security – Using Certificates to secure transactions.

**CIS 1106, Introduction to Web Programming using C#.NET** (Credit: 4) (Prerequisites: CIS 105 and CIS 2202 both with a C or better) This course provides an introduction to Web Programming using Microsoft C#. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, If conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security. (3-2-0-4)

**CIS 1108, Web Graphics using JASC Paint Shop** (Credit: 4) (Prerequisite: Program admission) This course covers the creation and editing of digital photographs and images using JASC Paint Shop. Topics covered include understand file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codecs, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects. (3-2-0-4)

**CIS 1109, Introduction to Web Programming using VB.NET** (Credit: 4) (Prerequisites: CIS 105 and CIS 2202 both with a C or better) This course provides an introduction to Web Programming using Microsoft Visual Basic .NET. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, If conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security. (3-2-0-4)

**CIS 1110, Introduction to Web Programming using PHP** (Credit: 4) (Prerequisites: CIS 105 and CIS 2202 both with a C or better) This course provides an introduction to Web Programming using PHP. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security. (3-2-0-4)

**CIS 1115, Information Security Fundamentals** (Credit: 5) (Prerequisites: CIS 1140 or CIS 2321, either with a C or better or *advisor's approval*) This course provides a broad overview of information security. It covers terminology, history, security systems development and implementation. Student will also cover the legal, ethical, and professional issues in information security. (5-0-0-5)

**CIS 1116, Security Policies and Procedures** (Credit: 5) (Prerequisites: CIS 1140 or CIS 2321, either with a C or better or *advisor's approval*) This course provides knowledge and experience to develop and maintain security policies and procedures. Students will explore the legal and ethical issues in information security and the various security layers: physical security, personnel security, operating systems, network, software, communication and database security. Students will develop an Information Security Policy and an Acceptable Use Policy. (5-0-0-5)

**CIS 1117, Implementing Operating Systems Security Procedures** (Credit: 6) (Prerequisites: CIS 1115 with a C or better and *advisor's approval*) This course will provide knowledge and the practical experience necessary to configure the most common client and server platforms as it relates to associated security issues. Lab exercises will provide students with experience of establishing security for the network environment. (4-4-0-6)

**CIS 1118, Implementing Network Security** (Credit: 6) (Prerequisites: CIS 1115 with a C or better and *advisor's approval*) This course provides knowledge and the practical experience necessary to evaluate, implement and manage secure information transferred over computer networks. Topics include network security, intrusion detection, types of attacks, methods of attacks, security devices, basics of cryptography and organizational security elements. (4-4-0-6)

**CIS 1119, Implementing Internet/ Intranet Firewalls** (Credit: 6) (Prerequisites: CIS 1115 with a C or better and *advisor's approval*) Students will learn how to plan, design, install and configure firewalls that will allow key services while maintaining security. This will include protecting the Internal IP services, configuring a firewall for remote access and managing a firewall. (4-4-0-6)

**CIS 1120, Computer Forensics and Disaster Recovery – Capstone Course for CIS Information Security Majors**(Credit: 6) (Prerequisites: CIS 1118 and CIS 1119, each with a C or better; also requires Advisor's approval) This course serves as a capstone course for the information security specialist. The course will include implementing a plan to detect intruders, determine the damage caused, and discuss what precautions to use to avoid disasters. (4-4-0-6)

**CIS 1121, Visual Basic.NET I** (Credit: 7) (Prerequisite: CIS 105 with a C or better) This course introduces Microsoft Windows event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsoft's Visual Studio development environment. Topics include Windows applications, user interface design, capturing and validating input, event-driven programming design, conditional processing, file processing, and incorporating graphics. (4-6-0-7)

**CIS 1122, Visual Basic.NET II** (Credit: 7) (Prerequisite: CIS 1121 and a database course, both with a C or better) Advanced Visual Basic.NET teaches client-server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational and XML databases. Advanced features of Visual Basic are explored. (4-6-0-7)

**CIS 1123, Web Graphics and Animation using Adobe Flash** (Credit: 6)(Prerequisite: CIS 1104 with a C or better) This course covers the creation and manipulation of images and animation using Adobe Flash and 3D creation software. Topics covered include 3D Digital Image tools, file types, download and image plug-in requirements., a systematic approach to creating images, creating 3D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2D and 3D animations. (4-4-0-6)

**CIS 1124, Web Graphics & Animation using Adobe Illustrator and Adobe LiveMotion** (Credit: 6) (Prerequisite: CIS 1104 or CIS 1108) This course covers the creation and manipulation of images and animation using Adobe Illustrator and Adobe LiveMotion. Topics covered include 3D Digital Image tools, file types, download and 3D image plug-in requirements, a systematic approach to creating images, creating 3D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2D and 3D animations. (4-4-0-6)

**CIS 1140, Networking Concepts** (Credit: 6) (Prerequisite: CIS 106 with a C or better) Introduces networking technologies and prepares students to take the CompTIA's broad-based, vendor independent networking certification exam, Network +. This course covers a wide range of material



about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. The course also focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. (4-4-0-6)

**CIS 1151, CIS Internship** (Credit: 4) (Prerequisites: All non-elective courses and advisor approval) This course provides the student with real hands-on experience in the IT industry. Students will be provided the opportunity to gain experience in the area of their concentration. Topics include application of classroom knowledge and skills and practical work experience. (0-0-12/18-4/6)

**CIS 1491, Beginning C# Programming** (Credit: 7) (Prerequisites: CIS 105 with a C or better) Introduces Microsoft Windows event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsoft's Visual Studio development environment. Topics include numeric data types and variables, decision making structures, validating input with strings and functions, repetition and multiple forms, test files, arrays, lists and common dialog controls. (4-6-0-7)

**CIS 1492, Intermediate C# Programming** (Credit: 7) (Prerequisites: CIS 1491 with a C or better) Intermediate C# (C-Sharp) teaches client-server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational and XML databases. Advanced features of C# windows programming are explored. (4-6-0-7)

**CIS 2005, Advanced Web Graphics using Adobe Photoshop** (Credit: 6) (Prerequisite: CIS 1104 with a C or better) This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include curves and adjustment layers, retouching techniques, color correction, color balancing, element replacement and restoration, typography and interpolation, and advanced techniques and special effects. (4-4-0-6)

**CIS 2102, Advanced Web Graphics and Multimedia using Adobe Premiere** (Credit: 6) (Prerequisite: CIS 1123 with a C or better) This course covers advanced web graphics techniques, and multimedia for the web including sound, music, and digital video using Adobe Premiere. Topics covered include digital video editing, basic editing, adding audio, applying video and audio effects, morphing tools, and advanced topics. (4-4-0-6)

**CIS 2105, Advanced Web Graphics using Adobe Flash** (Credit: 6) (Prerequisite: CIS 1123 with a C or better) This course covers additional techniques used in the creation and manipulation of vector images and animation using Adobe Flash. Topics covered include Advanced Animation Techniques, ActionScript Fundamentals, Advanced ActionScript Techniques, Third Party Languages, Optimizing and Publishing Flash movies. (4-4-0-6)

**CIS 2106, Advanced Web Programming using C#.NET** (Credit: 6) (Prerequisite: CIS 1106 with a C or better) This course provides a look at advanced Web Programming techniques using Microsoft C# .NET. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics. (4-4-0-6)

**CIS 2108, Web Server Administration** (Credit: 6) (Prerequisite: CIS 2153 or CIS 2556 with a C or better) This course covers Web Server Administration techniques. Topics include installation, configuration, access control, web site management, database management, security, and other related topics. Tools used include Microsoft IIS Server, Microsoft SQL Server, and/or Apache Server.

**CIS 2109, Advanced Web Programming using VB.NET** (Credit: 6) (Prerequisite: CIS 1109 with a C or better) This course provides a look at advanced Web Programming techniques using Microsoft Visual Basic .NET. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics. (4-4-0-6)

**CIS 2110, Advanced Web Programming using PHP** (Credit: 6) (Prerequisite: CIS 1110 with a C or better) This course provides a look at advanced Web Programming techniques using PHP. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics. (4-4-0-6)

**CIS 2128, Introduction to Oracle Databases** (Credits: 7) (Prerequisite: CIS 214 with a C or better) This course provides an introduction to the ORACLE database management system platform and to Structured Query Language (SQL) and ORACLE PL/SQL. Topics include: understand Oracle operating environment, able to implement basic SQL SELECT statements, using ORACLE DML and DDL statements, understand the basics of PL/SQL, able to understand and implement ORACLE SQL data retrieval techniques, sorting and retrieving data, manipulating data, creating and managing tables, creating views, describing constraints, and establish competencies for Introduction to ORACLE exam. (4-6-0-7)

**CIS 2129, Oracle Database Administration** (Credit: 7) (Prerequisites: CIS 214 with a C or better) This course enables the database student to be able to fine tune Oracle databases. Topics include: Oracle architectural components, Oracle administration tools, Oracle instances, creation of an Oracle database, construct Data Dictionary views, Maintain the control file, Maintain the Redo Log File, Manage table spaces and data files, Understand relationships and impacts on storage structures, Manage tables, indexes and segments, maintain data integrity, manage users, profiles, privileges, roles, understand and use database auditing options, using National Language Support (NLS). Topics include: understand Oracle architectural components, understand and use Oracle administration tools, manage Oracle instances, be able to create an Oracle database, construct Data Dictionary views, maintain the control file, maintain the Redo Log File, manage table spaces and data files, understand relationships and impacts on storage structures, manage tables, indexes and segments, maintain data integrity, manage users, profiles, privileges, roles, understand and use database auditing options, using National Language Support (NLS), and establish competencies for Oracle Database Administration Exam. (4-6-0-7)

**CIS 2130, Oracle Database Backup and Recovery** (Credit: 7) (Prerequisite: CIS 2128 and CIS 2129 both with a C or better) This course introduces participants to the critical task of planning and implementing database backup and recovery strategies. The class addresses backup and recovery techniques and examines various backup, failure, restore and recovery scenarios. Generic backup, restore and recovery operations. Through hands-on exercises, participants will examine backup methodologies based on business requirements in a mission critical enterprise. Participants will utilize multiple strategies and Oracle tools such as Recovery Manager to perform backups, and restore and recovery operations. Topics include: understand needs for backup and recovery, be able to understand and implement essential elements of a disaster recovery plan, understand Oracle recovery structures, understand and be able to implement Oracle Backup and Recovery operations, understand database recovery modes, be able to know when to utilize RMAN, be able to register, resync and reset an Oracle database, understand and be able to implement database backup procedures, troubleshooting database failures,

understand and be able to use Oracle import and export utilities, and establish competencies for ORACLE Backup and Recovery Exam. (4-6-0-7)

**CIS 2131, Oracle Database Performance Tuning** (Credit: 7) (Prerequisite: CIS 2128 and CIS 2129 both with a C or better) This course enables the database student to be able to fine tune Oracle databases. Topics include: Tuning overview, Oracle Alert and Trace Files, Utilities and Dynamic Performance Views, Tuning the Shared Pool, Tuning the Buffer Cache, Tuning the Redo Log Buffer, Database Configuration and I/O Issues, Using Oracle Blocks Efficiently, Optimizing Sort Operations, Tuning Rollback Segments, Monitoring and Detecting Lock Contention, SQL Issues and Tuning Considerations for different applications, Managing a Mixed Workload, Tuning with Oracle Expert, Multithreaded Server Tuning Issues. This course enables participant to be able to fine tune Oracle databases. (4-6-0-7)

**CIS 2149, Implementing Microsoft Windows Professional** (Credit: 6) (Prerequisite: CIS 103 and CIS 1140 or CIS 2321, all with a C or better) Provides the ability to implement, administrator, and troubleshoot Windows Professional as a desktop operating system in any network environment. (4-4-0-6)

**CIS 2150, Implementing Microsoft Windows Server** (Credit: 6) (Prerequisite: CIS 2149 with a C or better) Provides the ability to implement, administrator, and troubleshoot Windows Server as a member server of a domain in an Active Directory. (4-4-0-6)

**CIS 2153, Windows Networking Infrastructure - *Capstone for CIS Networking(Windows)***  
**Majors**(Credit: 6) (Prerequisite: CIS 2150 with a C or better; *also requires Advisor's approval*) This course is the Capstone course for the Microsoft Windows Specialist program. Provides students with knowledge and skills necessary for new-to-product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows server family of products. (4-4-0-6)

**CIS 2154, Implementing Microsoft Windows Networking Directory Services** (Credit: 6) (Prerequisite: CIS 2153 with a C or better) Provides students with knowledge and skills necessary to install, configure, and administer the Microsoft Windows Active Directory™ service. The course also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. (4-4-0-6)

**CIS 2161, Introduction to SQL (Credit: 6)** (CIS 105 with a C or better) A course designed to allow the student to solve common database retrieval problems through the use of the SQL Language that supports common databases such as SQL/Server, Oracle, DB2, ACCESS and other database systems. Topics include: Understanding database vocabulary, understanding object and relational database concepts, understanding and implementing SQL statements that retrieve, insert, update and delete data in a database, ability to implement aggregate and group SQL functions, create, edit and drop database tables, query data from multiple databases, design queries and sub queries, develop an understanding of union, and join operations, understand how to execute and implement database triggers. (4-6-0-7)

**CIS 2200, XML Fundamentals (Credit: 3)** (Prerequisite: CIS 106) This course introduces students to the basics of XML. They learn the different parts of an XML document, and how to create XML documents. They learn to how to format using the XML Stylesheet Language. Students learn how to format, query, validate and store XML documents. (2-3-0-3)

**CIS 2202, XHTML Fundamentals** (Credit: 5) (Prerequisite: Program Admission) XHTML Fundamentals is designed to teach basic through intermediate concepts in Hypertext Markup Language (HTML) authoring, including forms, complex table design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, in practical applications, a wide range of HTML tags and attributes. Student will also learn how to use Cascading Style Sheets (CSS), XML, and XHTML. All HTML, CSS, XHTML, and XML development will follow the current standards set by the World Wide Web Consortium (W3C). Topics include introduction to HTML, CSS, XHTML, and XML, creating pages using HTML, CSS, XHTML, and XML, incorporating graphical elements, create hyperlinks, create HTML tables, create HTML forms, and image maps. (2-3-0-5)

**CIS 2211, Web Site Design Tools** (Credit: 6) (Prerequisites: CIS 2202 and CIS 1104 both with a C or better) Web Site Design Tools teaches an understanding of how to create and manage impressive s sites using the sizeable amounts of new technology available on the Web. Students will learn to create web sites using various web tools such as Microsoft FrontPage, Adobe Dreamweaver, Adobe GoLive, XHTML, XML, Dynamic HTML, and various multimedia and CSS standards. Topics include compare and contrast different web site design tools, design web pages using web site design tools, develop basic layout skills, create shared borders, tables, hyperlinks, and forms, utilize advanced image techniques, connect a web site to a database, publish and manage a web site. (4-4-0-6)

**CIS 2231, Design Methodology - Capstone Course for Web Design and Web Application and Services Development Majors**(Credit: 6) (Prerequisites: CIS 2202 and CIS 1104, each with a C or better; *also requires Advisor's approval*) Design Methodology teaches students how to design and manage Web sites using a web site design development life cycle. Students will also implement the latest strategies to develop third generation Web site, evaluate design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers. The course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, and scenario development and performance evaluations. The student will gain an understanding of layout techniques, typography, color theory, proper use of white space, accessibility and usability issues and standards. The student may use a web site development tool (such as Microsoft FrontPage or Adobe Dreamweaver), a scripting language (such as JavaScript, Perl, PHP) and/or a web programming language (such as Microsoft VB, Microsoft C#, or Sun Java) for web page development within this course. However, the main focus of this course is on the actual design process used to develop the web site itself. Topics include overview of the Web Site Design Process, web site project team, layout and accessibility design techniques, and web site project. (4-4-0-6)

**CIS 2261, JavaScript Fundamentals** (Credit: 4) (Prerequisites: CIS 2202 and CIS 105 both with a C or better) JavaScript Fundamentals teaches developers how to use the features of the JavaScript language. Students learn how to write JavaScript programs that can be plugged into Web pages or customized, and examine advanced issues such as debugging techniques and JavaScript security. Topics include introduction to JavaScript, working with variables and data, functions, methods, and events, developing interactive forms, controlling program flow, JavaScript object model, JavaScript Language objects, cookies and JavaScript security, controlling frames in JavaScript, client-side JavaScript, and custom JavaScript options. (3-2-0-4)

**CIS 2281, Database Connectivity** (Credit: 6) (Prerequisites: CIS 2202, CIS 105, and CIS 2261 each with a C or better) Database Connectivity teaches students how to manipulate data in a database, using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database

information with a web application. Database access may be accomplished using a web programming language (such as ColdFusion, PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulate data in a database, work with a relational database via Open Database Connectivity (ODBC), working with different database systems, develop forms and applications to interact with a database server(s), modifying data in a database, and controls and validation. (4-4-0-6)

**CIS 2291, Network Security** (Credit: 6) (Prerequisite: CIS 1140 or CIS 2321 with a C or better) Network Security introduces students to network security, firewalls, Microsoft Windows network security, UNIX and TCP/IP network security, security auditing, attacks, and threat analysis. Topics include: elements of security, TCP/IP, operating system security. router security, firewalls, security basics, user and group security, file system security, securing the registry, account security, security auditing fundamentals, and additional security measures. (4-4-0-6)

**CIS 2301, E-Commerce Concepts and Practices** (Credit: 6) (Prerequisites: CIS 2202 with a C or better) E-Commerce Concepts and Practices focuses on high-level information and planning to provide necessary background for designing and building electronic commerce Web sites. The student will focus on standards, technologies, and practices in electronic commerce. Topics include: electronic commerce fundamentals, applications: launching a virtual enterprise, law and the Internet, security, payment infrastructure, and implementation notes and case studies.

**CIS 2321, Introduction to LAN and WAN** (Credit: 6) (Prerequisite: CIS 106 with a C or better or *Advisor's Approval*) Provides students with classroom and laboratory experience in current and emerging network technology. Topics include safety, networking, network terminology and protocols, network standards, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social-studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building and environmental codes and regulations. (4-4-0-6)

**CIS 2322, Introduction to WANs and Routing** (Credit: 6) (Prerequisite: CIS 2321 with a C or better) This course provides instruction on performing basic router and switch configuration and troubleshooting. (4-4-0-6)

**CIS 2421. Intermediate Java Programming** (Credit: 7) (Prerequisite: CIS 252 with a C or better) This course is an intermediate course in Java Programming. It is assumed that the student knows the Java syntax as well as basic object oriented concepts. The student will use classes and objects provided by the core Java API. They will use these classes to accomplish tasks such as Database access, File access, exception handling, running threads, using sockets to talk across a network, and remotely calling methods using RMI techniques. (4-6-0-7)

**CIS 2431. Advanced Java Programming** (Credit: 7) (Prerequisite: CIS 2421 with a C or better) This course is an advanced course in Java programming. It is assumed that the student is fairly familiar with the Java programming language. The goal of this course is to help students understand how to use Java to build industry level dynamic Web-based applications. The course covers in detail J2EE(Java 2 Enterprise Edition). The students will learn how to build Servlets, and JSPs for the front end. And the student will learn about EJBs(Enterprise Java Beans) for the Server side processing of data and talking to databases. (4-6-0-7)

**CIS 2451, Introduction to PHP Programming** (Credit: 7) (Prerequisites: CIS 105 with a C or better and CIS 2202) Students will learn how to create dynamic web sites using the PHP programming language. Topics include: introduction to PHP, web server, and database environments; embedding PHP in HTML documents; variables; arithmetic operations; functions; forms; conditional statements; iterative statements; arrays; text files; and creating, populating, retrieving, and updating database tables via PHP applications. (4-6-0-7)

**CIS 2452, Advanced PHP Programming** (Credit: 7) (Prerequisite: CIS 2451) Reinforces and extends the concepts and applications provided in Beginning PHP. Topics include: interactive programming, multidimensional array processing, functions, user defined functions, expressions, and advanced database processing. (4-6-0-7)

**CIS 2554, Introduction to Linux/UNIX** (Credit: 6) (Prerequisite: CIS 1140 or CIS 2321 with a C or better or advisor approval) This course introduces the Linux/UNIX operating system skills necessary to perform entry-level user functions. Topics include: History of Linux/UNIX, login and logout, the user environment, user password change, the file system, hierarchy tree, editors, file system commands as they relate to navigating the file system tree, Linux/UNIX manual help pages, using the Linux/UNIX graphical desktop, and command options. In addition, the student must be able to perform directory and file displaying, creation, deletion, redirection, copying, moving, linking files, wildcards, determining present working directory and changing directory locations. (4-4-0-6)

**CIS 2555, Linux/UNIX Administration** (Credit: 6) (Prerequisite: CIS 2554 with a C or better or advisor approval) Covers Linux/UNIX operating system administration skills necessary to perform administrative functions. Topics include: Installing Linux/UNIX, configuring and building a custom kernel, adding and removing software packages, managing run levels, managing users and groups, implementing security permissions, introduction to shell programming, managing and fixing the file system, managing memory and swap space, managing and scheduling jobs, managing system logs, understanding the boot process, system configuration files, file backup and restore, file compression, fault tolerance, and printing. (4-4-0-6)

**CIS 2556, Linux/UNIX Advanced Administration** (Credit: 6) (Prerequisite: CIS 2555 with a C or better) Covers Linux/UNIX operating system advanced administration skills necessary to perform advanced administrative functions. Topics include: understanding Linux/UNIX networking, managing network printing, configuring and troubleshooting TCP/IP on Linux/UNIX, configuring DHCP, DNS, a Web server, an FTP server, an E-mail server, and understanding NIS, YP, SAMBA, LDAP, and NFS. Also, includes the following: understanding advanced security issues such as firewalls and NAT, using network commands, use of graphical system such as X Windows, sharing files and printers, and advanced shell programming. (4-4-0-6)

**CIS 2557, Linux/UNIX Shell Script Programming** (Credit: 6) (Prerequisite: CIS 2556 with a C or better) Course covers Linux/UNIX shell programming techniques necessary for Linux/UNIX System Administrators to understand and create shell script programs in a Linux/UNIX environment. Topics include: Shell variables, running shell script program, conditional processing, looping structures, arrays, functions, arithmetic operators, logical operators such as AND, OR, and NOT, positional parameters and process variables, redirection, piping and standard error, use of backslash, quotes and back quotes. (4-4-0-6)

**CLT 101, Introduction to Clinical Laboratory Technology** (Credit: 3) (Prerequisite: Program admission) Introduces students to the terms, concepts, procedures, and equipment used in a professional medical laboratory. Topics include: professional ethics and regulatory agencies; basic laboratory safety, equipment, and techniques; phlebotomy/specimen processing; quality control concepts; process improvement; documentation; Health Insurance Portability & Accountability Act (HIPAA), and point of care testing. Practical experience in phlebotomy will be provided in the institution laboratory and/or the clinical setting. (2-0-3-3)

**CLT 103, Urinalysis/Body Fluids** (Credit: 3) (Prerequisites/Corequisites: BIO 193, BIO 194, AHS 104, and CLT 101) Provides theory and techniques required to conduct tests on urine and various body fluids. Theory and tests are related to disease states and diagnosis. Topics include: theory of urinalysis; physical, chemical, and microscopic urinalysis; urinalysis and disease state correlation; Health Insurance Portability & Accountability Act (HIPAA); special urinalysis and related testing; body fluids tests; and safety and quality control. (2-0-3-3)

**CLT 104, Hematology/Coagulation** (Credit: 8) (Prerequisites/Corequisites: BIO 193, BIO 194, AHS 104, MAT 101 and CLT 101) Introduces the fundamental formation, function, and degradation of blood cells. Topics include: reticuloendothelial system and blood cell formation, complete blood count and differential, other related blood tests, correlation of test results to disease states, coagulation and fibrinolysis, instrumentation for hematology and coagulation, critical values and blood cell dyscrasias, safety, quality control, HIPAA, and process improvement. (5-4-3-8)

**CLT 105, Serology/Immunology** (Credit: 3) (Prerequisites/Corequisites: BIO 193, BIO 194, AHS 104, MAT 191 and CLT 101) Introduces the fundamental theory and techniques applicable to serology and immunology practice in the medical laboratory. Topics include: immune system, antigen and antibody reactions, immunological diseases, common serological techniques, safety and quality control, process improvement, and the Health Insurance Portability & Accountability Act (HIPAA). (3-0-2-3)

**CLT 106, Immunohematology** (Credit: 7) (Prerequisite: CLT 105) Provides an in-depth study of immunohematology principles and practices as applicable to medical laboratory technology. Topics include: genetic theory and clinical applications, immunology, donor unit collection, pre-transfusion testing, management of disease states and transfusion reactions, safety, regulatory agencies, documentation and computer usage/quality control, Health Insurance Portability & Accountability Act (HIPAA), and process improvement. (5-2-3-7)

**CLT 107, Clinical Chemistry** (Credit: 7) (Prerequisites/Corequisites: BIO 193, BIO 194; AHS 104, CHM 191, CHM 192; MAT 191 and CLT 101) Develops concepts and techniques of clinical chemistry applicable to medical laboratory technology. Topics include: carbohydrates, electrolytes and acid-base balance, nitrogenous compounds, enzymes and endocrinology, liver functions, lipids, toxicology and therapeutic drug monitoring, safety, regulatory agencies and laws, documentation and computer usage, HIPAA, quality control, correlation of disease states, process improvement (team approach), and critical thinking skills. (5-2-3-7)

**CLT 108, Microbiology** (Credit: 8) (Prerequisites: BIO 193, BIO 194, AHS 104, CHM 191, CHM 192, CLT 101 and MAT 191) Introduces fundamental microbiology and parasitology theory and techniques applicable to disease state identification. Topics include: microbiology fundamentals; basic techniques; clinical microbiology; anti-microbial sensitivity; safety, regulatory agencies and regulatory laws, HIPAA,

computer documentation and usage, quality control; parasitology; mycology, mycobacteriology, and virology; correlation of disease states; and process improvement. (6-0-6-8)

**CLT 109, Clinical Phlebotomy, Urinalysis, and Serology Practicum** (Credit: 4 (Prerequisites/Corequisites: CLT 101, CLT 103 and CLT 105) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: basic and specialized urinalysis tests, serological tests and techniques, blood and specimen processing, correlation of test results to disease states, safety, regulatory agencies and regulatory laws, computer usage and documentation, HIPAA, quality control, and quality assurance. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision. (0-0-12-4)

**CLT 110, Clinical Immunohematology Practicum** (Credit: 6) (Prerequisite/Corequisite: CLT 106) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: basic and specialized urinalysis tests, serological tests and techniques, blood and specimen processing, correlation of test results to disease states, safety, regulatory agencies and regulatory laws, computer usage and documentation, HIPAA, quality control, and quality assurance. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision. (0-0-20-6)

**CLT 111, Clinical Hematology/Coagulation Practicum** (Credit: 6) (Prerequisite/Corequisite: CLT 104) Provides students with an opportunity for in-depth application and reinforcement of hematology/coagulation principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: complete blood count and differentials; other related blood tests; coagulation and fibrinolysis tests; correlation of test results to disease states and critical values; instrumentation; safety; documentation/quality control/computer usage/regulatory laws; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision. (0-0-20-6)

**CLT 112, Clinical Microbiology Practicum** (Credit: 6) (Prerequisite: CLT 108) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: specimen inoculations; stains; culture work-ups; bacterial identification; anti-microbial sensitivity; media preparation; special areas; safety; documentation/quality control/computer usage/regulatory laws; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision. (0-0-20-6)

**CLT 113, Clinical Chemistry Practicum** (Credit: 6) (Prerequisite: CLT 107) Provides students with an opportunity for in-depth application and reinforcement of chemistry principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: therapeutic drugs and toxicology; automated and manual chemistry; immuno



chemistry; special chemistry; safety; correlation of test results to disease states and critical values; instrumentation; documentation/quality control/computer usage/regulatory laws; and process improvement. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision. (0-0-20-6)

**CLT 118, CLT Licensure Review I** (Credit: 1) (Prerequisites: CLT 101-CLT 108; Corequisites: CLT 109-CLT113) Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for the medical laboratory technician level. Topics include: Review of: professional ethics, regulatory agencies, safety, and fundamental techniques; Phlebotomy and specimen processing; Infection control; Quality control; Computers in the lab; Urinalysis/Body Fluids - theory, tests, correlation; Hematology - RE system, blood count, differential, correlation of test results to disease, instrumentation, coagulation, fibrinolysis, critical levels and blood cell dyscrasias; Immunology/Serology - immune system, antigen-antibody reactions, diseases of immune system, serological techniques, genetic theory, correlation of results to disease. (0-0-3-1)

**CLT 119, CLT Licensure Review II** (Credit: 1) (Prerequisites: CLT 101-108; Corequisites: CLT 109-113) Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for the medical laboratory technician level. Topics include: Review of: Immunohematology - Donor unit collection and storage; Pretransfusion testing; Transfusion reactions, and management of diseases; Clinical chemistry - Carbohydrates, Electrolytes, Acid-base balance, Nitrogenous compounds, Enzymes, Endocrinology, Liver functions, Lipids, Toxicology and drug monitoring; Microbiology - Fundamentals and basic techniques, identification of bacteria, anti-microbial sensitivity, disease correlation to organisms, parasitology, mycology, mycobacteriology, and virology. (0-0-3-1)

**CNA 100, Patient Care Fundamentals**, (Credit: 8) (Prerequisite: Program admission; Prerequisite/Corequisite AHS 104 with a C or better). This course introduces students to the occupational concerns of the Certified Nurse Assistant. Emphasis is placed on human anatomy and physiology, cardiac and pulmonary resuscitation, nutrition and dietary therapy. Topics include: roles and responsibilities of the Certified Nurse Assistant; topography; structure, and function of body systems; legal and safety requirements in the patient care field; equipment use and care; and patient care performance skills standards and procedures. (5-6-0-8)

**COL 101, Student Success and Orientation Course** (Credit: 2) (Prerequisite: Provisional admission) (Formerly CTC 101) Helps students to develop stronger academic skills that will enable them to perform better in their courses of study. Topics include: reading comprehension, study skills, time management, taking tests, test anxiety, campus resources, career planning, stress management, diversity issues, taking notes, health and wellness, communications, and relationships.

**COS 100, Introduction to Cosmetology Theory** (Credit: 5) (Prerequisite: Program admission and SCT 100 and ENG 1010 and MAT 1012 and EMP 1000) Introduces the fundamental theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules, and regulations; professional image; bacteriology; decontamination and infection control; chemistry fundamentals; safety; Hazardous Duty Standards Act compliance; and anatomy and physiology. (5-0-0-5)

**COS 101, Introduction to Permanent Waving and Relaxing** (Credit: 4) (Prerequisite: COS 100) Introduces the chemistry and chemical reactions of permanent wave solutions and relaxers. Topics include: permanent wave techniques, chemical relaxer techniques, chemistry, physical and chemical change, safety procedures, and permanent wave and chemical relaxer application procedures on mannequins. (3-2-0-4)

**COS 103, Introduction to Skin, Scalp, and Hair** (Credit: 3) (Prerequisite: COS 100) Introduces the theory, procedures, and products used in the care and treatment of skin, scalp, and hair. Topics include: basic corrective hair and scalp treatments, plain facial, products and supplies, diseases and disorders, and safety precautions. (2-2-0-3)

**COS 105, Introduction to Shampooing and Styling** (Credit: 4) (Prerequisite: COS 100) Introduces the fundamental theory and skills required to shampoo and create shapings, pincurls, fingerwaves, roller placement, and combouts. Laboratory training includes styling training to total 20 hours on mannequins and 25 hours on live models without compensation. Topics include: braiding/intertwining hair, shampoo chemistry, shampoo procedures, styling principles, pincurls, roller placement, fingerwaves, combout techniques, skipwaves, ridgecurls, and safety precautions. (2-4-0-4)

**COS 106, Introduction to Haircutting** (Credit: 3) (Prerequisite: COS 100) Introduces the theory and skills necessary to apply haircutting techniques. Safe use of haircutting implements will be stressed. Topics include: haircutting terminology, safety, decontamination and precautions, cutting implements, haircutting techniques, and client consultation, head/hair/body analysis. (2-2-0-3)

**COS 107, Advanced Haircutting** (Credit: 2) (Prerequisite: COS 106) Continues with the theory and application of haircutting techniques. Topics include: client consultation, head and body analysis, hair analysis, and haircutting techniques. (0-2-3-2)

**COS 108, Permanent Waving and Relaxing** (Credit: 3) (Prerequisite: COS 101) Provides instruction in the application of permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Application of perms and relaxers on live models is included. Topics include: timed permanent wave, timed relaxer application, safety precautions, and Hazardous Duty Standards Act compliance. (2-2-0-3)

**COS 109, Hair Color** (Credit: 6) (Prerequisites: COS 103, COS 105, and COS 108) Presents the application of temporary, semi-permanent, deposit only, and permanent hair coloring and decolorization products. Topics include: basic color concepts, classifications of color, safety precautions, consultation, communication and record and release forms, product knowledge, special problems in hair color and corrective coloring, and Special Effects. (4-4-0-6)

**COS 110, Skin, Scalp, and Hair** (Credit: 3) (Prerequisites: COS 103 and COS 109; Corequisite: COS 111) Provides instruction on, and application of, techniques and theory in the treatment of the skin, scalp, and hair. Emphasis will be placed on work with live models. Topics include: implements, products and supplies, corrective hair and scalp treatments, facial procedures and manipulations, safety precautions, cosmetic chemistry/products and supplies and treatment theory: electrotherapy, electricity and light therapy. (2-2-0-3)

**COS 111, Styling** (Credit: 3) (Prerequisites: COS 105 and COS 110) Continues the theory and application of hairstyling, and introduces thermal techniques. Topics include: blow dry styling, thermal curling,

thermal pressing, thermal waving, advanced cutting and styling, safety precautions, and artificial hair and augmentation. (1-4-0-3)

**COS 112, Manicuring and Pedicuring** (Credit: 3) (Prerequisite: COS 100) Provides manicuring and pedicuring experience on live models. Topics include: implements, products and supplies, hand and foot anatomy, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions, and advanced nail techniques (wraps/tips/acrylics). (2-2-0-3)

**COS 113, Practicum I** (Credit: 5) (Prerequisites: COS 111 and COS 112) Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The Georgia State Board of Cosmetology prescribes the allocation of time to the various phases of cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance. (1-0-12-5)

**COS 114, Practicum II** (Credit: 8) (Prerequisite: COS 113) Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The Georgia State Board of Cosmetology prescribes the allocation of time to the various phases of cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; advanced styling and shaping; industry concepts; and surviving in the salon (transition from class to employment). (4-0-12-8)

**COS 115, Practicum/Internship I** (Credit: 5) (Prerequisite: COS 114) Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. The maximum number of internship hours for this course is 50 clock hours. Interns must be approved with a minimum *B* average in both course work and work ethics. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatment; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance. (1-0-12-5)

**COS 116, Practicum/Internship II** (Credit: 5) (Prerequisite: COS 115) Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. The maximum number of internship hours for this course is 50 clock hours. Interns must be approved with a minimum *B* average in both course work and work ethics. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation. (1-0-12-5)

**COS 117, Salon Management** (Credit: 4) (Prerequisite: COS 112, COS 113, COS 114; Corequisite: COS 115 and COS 116) Emphasizes the steps involved in opening and operating a privately owned cosmetology salon or barber/styling shop. Topics include: planning a salon/shop, business management, retailing, public relations, sales skills, career development, and client retention. (3-2-0-4)

**CRJ 101, Introduction to Criminal Justice** (Credit: 5) (Pre-Corequisite: SCT 100; Provisional Admission) Examines the emergence, progress, and problems of the Criminal Justice Technology system in the United States. Topics include: the American Criminal Justice Technology system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements. (5-0-0-5)

**CRJ 103, Corrections** (Credit: 5) (Pre-Corequisite: CRJ 101) Provides an overview of all phases of the American correctional system and practices, including its history, procedures, and objectives. Topics include: history and evolution of correctional facilities; legal and administrative problems; institutional facilities and procedures; probation, parole, and prerelease programs; alternative sentencing; rehabilitation; community involvement; and staffing. (5-0-0-5)

**CRJ 104, Principles of Law Enforcement** (Credit: 5) (Pre-Corequisite: CRJ 101) Examines the principles of organization and administration, and the duties of local and state law enforcement agencies with emphasis on police departments. Topics include: history and philosophy of law enforcement, evaluation of administrative practices, problems in American law enforcement agencies, emerging concepts, professionalism, and community crime prevention programs. (5-0-0-5)

**CRJ 105, Introduction to Criminal Procedure** (Credit: 5) (Prerequisite: CRJ 101) Introduces procedural laws governing the process in the criminal justice system. Attention is given to observation of courtroom trials. Topics include: laws of arrest and search and seizure; procedures governing arrest, trial, and administration of criminal sanctions; rules of evidence; general court procedures; rights and duties of officers and citizens; and Supreme Court rulings that apply to Criminal Justice Technology/overview of Constitutional Law. (4-2-0-5)

**CRJ 158, Fundamental Issues in Policing** (Credit: 5) (Prerequisite: CRJ 104) This course examines the fundamental issues within the occupation of policing. Emphasis is placed on ethics and professionalism, civil liability, interpersonal communications, mental health, substance abuse, health and wellness, equipment preparation, vehicle pullovers, and emergency vehicle operations. Topics include: occupational standards, health related hazards, and daily preparedness. (5-0-0-5)

**CRJ 162, Methods of Criminal Investigation** (Credit: 5) (Prerequisite: CRJ 105 and CRJ 168) Presents the fundamental principles of criminal investigation. Emphasis is placed on legal requirements stated in the Georgia Criminal Code, definition of felony crimes stated in the Georgia Code and fundamentals of: investigative procedures, crime scene searches, identification and collection of evidence, note-taking, and report writing, surveillance, identification of witnesses and suspects, interviews and interrogation, and preparation and presentation of evidence in court. Topics include: Georgia Criminal Law, common investigative techniques, and procedures used for investigating various crimes. (5-0-0-5)

**CRJ 168, Criminal Law** (Credit: 5) (Prerequisite: CRJ 101) This course emphasizes the historical development of criminal law in the United States and the current status of Georgia criminal law. The

main focus of the course will be the statutory contents of the Official Code of Georgia Annotated (O.C.G.A), with primary emphasis on the criminal and traffic codes. (5-0-0-5)

**CRJ 202, Constitutional Law** (Credit: 5) (Prerequisite: CRJ 101) Emphasizes those provisions of the Bill of Rights which pertain to Criminal Justice. Topics include: characteristics and powers of the three branches of government, principles governing the operation of the Constitution, the Bill of Rights, and the Constitutional Amendments. (5-0-0-5)

**CRJ 206, Criminology** (Credit: 5) (Prerequisite: CRJ 101) Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. Topics include: scope and varieties of crime; sociological, psychological, and biological causes of crime; criminal subculture and society's reaction; prevention of criminal behavior; behavior of criminals in penal and correctional institutions; and problems of rehabilitating the convicted criminal. (5-0-0-5)

**CRJ 207, Juvenile Justice** (Credit: 5) (Prerequisite: CRJ 101) Analyzes the nature, extent, and causes of juvenile delinquency, and examines processes in the field of juvenile justice. Topics include: survey of juvenile law, comparative analysis of adult and juvenile justice systems, and prevention and treatment of juvenile delinquency. (5-0-0-5)

**CRJ 209, Criminal Justice Practicum/Internship** (Credit: 5) (Prerequisite: CRJ 101, CRJ 103, CRJ 104, CRJ 105, CRJ 168, CRJ 202, CRJ 207 and CRJ 212) Provides experiences necessary for further professional development and exposure to related agencies in the Criminal Justice field. The student will either pursue a study project directed by the instructor within the institution, or an internship in a related agency supervised by the instructor. *Placement is subject to the availability of an approved site.* Topics include: observation and/or participation in criminal justice activities, interpersonal skills development, community oriented policing, cultural diversity, critical thinking/problem solving, and an independent study project. (0-0-15-5)

**CRJ 212, Ethics in Criminal Justice** (Credit: 5) (Prerequisite: CRJ 101, CRJ 103, CRJ 104 and CRJ 105) This course provides an exploration of the field of criminal justice ethics, which broadly encompasses the history of justice and theories of morality and ethics. It includes the study of ethics from both the individual perspective and the organizational standpoint. Special attention will be given to concrete ethical issues and dilemmas which are encountered regularly by participants in the major components of the criminal justice system. Four areas of ethical decision making opportunities are therefore studied in this course, including: law enforcement ethics; correctional ethics; legal profession ethics; and policymaking ethics. (5-0-0-5)

**CTD 101, Fundamentals of Commercial Truck Driving** (Credit: 5) Fundamentals of Commercial Truck Driving introduces students to the trucking industry, federal and state regulations, records and forms, industrial relations, and other non-driving activities. This course provides an emphasis on safety that will continue throughout the program. (5-0-0-5)

**CTD 102, Basic Operations** (Credit: 5) (Prerequisite: CTD 101) This course focuses on familiarizing students with truck instruments and controls and on performing basic maneuvers required to drive safely in a controlled environment. In addition, students acquire basic coupling and uncoupling skills. (3-2-3-5)

**CTD 103, Advanced Operations** (Credit: 5) (Prerequisite: CTD 102) Advanced Operations focuses on developing driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. On the road, safe operating practices are integrated into the development of driving skills. Students drive a total of 750 documented, over-the-road miles. Note: State law requires that, whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving. (1-1-12-5)

**CTD 104, Internship** (Credit: 5) (Corequisite: CTD 102) The internship provides the opportunity for an individual to complete his or her training with a company. The internship takes the place of CTD 103-Advanced Operations. Working closely with the school, a company provides the advanced training which focuses on developing driving skills. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of 44 (forty-four) hours BTW instructional time in any combination (with CTD 102) or range and street/road driving. Note: State law requires that whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving. (0-0-15-5)

**CUL 100, Professionalism in Culinary Arts** (Credit: 3) (Prerequisite: Provisional admission) Provides an overview of professionalism in culinary arts and culinary career opportunities. Chef history, pride, and esprit de corps are taught. Topics include: cuisine, food service organizations, career opportunities, food service styles, and basic culinary management techniques. (3-0-0-3)

**CUL 110, Food Service Sanitation and Safety** (Credit: 3) (Prerequisite: Provisional admission) Emphasizes fundamental kitchen and dining room safety, sanitation, maintenance, and operation procedures. Topics include: cleaning standards, sanitary procedures, safety practices, basic kitchen first aid, operation of equipment, cleaning and maintenance of equipment, dishwashing, and pot and pan cleaning. Laboratory practice parallels class work. (2-0-4-3)

**CUL 112, Principles of Cooking** (Credit: 6) (Prerequisites: CUL 100, 110 and MAT 101 or 190 ready) Introduces fundamental quantity food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, food costs, basic cooking principles, recipe utilization, and methods of food preparation. Laboratory demonstrations and student experimentation parallel class work. (2-2-9-6)

**CUL 114, American Regional Cuisine** (Credit: 5) (Prerequisite: CUL 112) Continues emphasis on terms, concepts, and methods necessary to quantity food preparation. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: kitchen aromatics, regional cooking principles and history, recipe utilization, and methods of American regional food preparation. Laboratory demonstrations and student experimentation parallel class work. (2-2-6-5)

**CUL 116, Food Service Purchasing and Control** (Credit: 3) (Prerequisite: MAT 101 or MAT 190 ready) Introduces principles and practices necessary to food, supply, and equipment selection, procurement, receiving, storage, and distribution. Topics include: quality factors, food tests, pricing procedures, cost determination and control, selection, procurement, receiving, storage, and distribution. To understand the overall concept of purchasing and receiving practices in quality food service operations. To apply knowledge of quality standards and regulations governing food products to the purchasing function. To

receive and store food and non-food items properly. Laboratory demonstration and student experimentation parallel class work. (2-2-0-3)

**CUL 121, Baking Principles I** (Credit: 5) (Prerequisites: CUL 112, MAT 101 or MAT 190 ready) Presents the fundamental terms, concepts, and methods involved in preparation yeast and quick breads. Emphasis is placed on conformance of sanitation and hygienic work habits with health laws. Course content reflects American Culinary Federation Educational Institute cook and pastry apprenticeship training objectives, along with Retail Bakery Association training program. Topics include: baking principles, baking ingredients, preparation of baked goods, baking sanitation and hygiene, and baking supplies and equipment. Laboratory demonstrations and student experimentation parallel class work. (2-2-6-5)

**CUL 122, Baking Principles II** (Credit: 5) (Prerequisite: CUL 121) Provides a continued application of principles from Baking I with expanded principles and skills reflecting the American Culinary Federation Educational Institute pastry apprentice training objectives. Provides training for those aspiring to become pastry chefs, as well as training for cooks and kitchen chefs. Topics include: Breads, pies, tarts, cake decorating, plated desserts for restaurants, traditional and contemporary torts, Mousse, creams, chocolate, ice creams and sorbets, Introduction to Decorative sugar and chocolate work. Laboratory demonstrations and student production of products parallel class lecture. (2-2-6-5)

**CUL 127, Banquet Preparation and Presentation** (Credit: 4) (Prerequisite: CUL 114) Provides experience in preparation of a wide variety of quantity foods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: kitchen operational procedures, equipment use, banquet planning, recipe conversion, food decorating/styling, safety and sanitation, and production of quantity food. Laboratory practice is provided. (1-2-6-4)

**CUL 129, Front of the House Service** (Credit: 3) (Prerequisite: CUL 100 and 110) Introduces the fundamentals of dining and beverage service. Topics include: dining service/guest service, dining service positions and functions, international dining services, restaurant business laws, preparation and setup, table side service, and merchandising. Laboratory practice parallels class work. (2-0-3-3)

**CUL 130, Pantry, Hors D' Oeuvres and Canapés** (Credit: 5) (Prerequisite: CUL 114) Introduces basic pantry manger principles, utilization, preparation, and integration into other kitchen operations. Course content reflects American Culinary Federation Educational Institute apprenticeship pantry, garnishing, and presentation training objectives. Topics include: pantry functions, basic garnishes, breakfast preparation, buffet presentation, cold preparations, cold sandwiches, salads and dressings, molds, garnishes, and cold hors d'oeuvres. Laboratory practice parallels class work. (2-2-6-5)

**CUL 132, Garde Manger** (Credit: 5) (Prerequisite: CUL 130) Emphasizes basic garde manger utilization and preparation of appetizers, condiments, and hors d'oeuvres. Topics include: hot and cold hors d'oeuvres; salads, dressings, and relishes; sandwiches; pates and terrines; chaudfroids, gelees, and molds; canapés; and garnishing, carving, and decorating. Laboratory practice parallels class work. (2-2-6-5)

**CUL 133, Food Service Leadership and Decision Making** (Credit: 5) (Prerequisite: Provisional admission) Student will become familiar with the principles and methods of sound leadership and decision making in the hospitality industry. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various

decision making processes, the ability to make sound and timely decision, leadership within the framework of the major functions of management, and delegation of authority and responsibility in the hospitality industry. (5-0-0-5)

**CUL 137, Nutrition and Menu Management** (Credit: 3) (Prerequisite: CUL 122, 127, and 130) Emphasizes menu planning for all types of facilities, services, and special diets. Topics include: menu selection, menu development and pricing, nutrition, special diets, and cooking nutritional foods. Laboratory demonstrations and student management and supervision parallel class work. (1-0-6-3)

**CUL 215, Contemporary Cuisine I** (Credit: 5) (Prerequisite: 122, 127, and 130) Emphasizes all modern cuisine and introduces management concepts necessary to the functioning of a commercial kitchen. Topics include: international cuisine, cuisine, trends, kitchen organization, kitchen management, kitchen supervision, and competition entry. Laboratory demonstration and student experimentation parallel class work. (2-2-6-5)

**CUL 216, Practicum/Internship I** (Credit: 11) (Prerequisite, CUL 220 and all general courses) Provides students with the opportunity to gain management/supervision experience in an actual job setting. Students will be placed in an appropriate restaurant, catering, or other food service business for four days per week throughout the quarter. On-the-job training topics include: restaurant management/on-off premise catering/food service business, supervisory training, and management training, on-off premise catering, hotel kitchen organization, kitchen management, restaurant kitchen systems, institutional food systems, kitchen departmental responsibilities, and kitchen productivity. (1-0-30-11)

**CUL 220, Contemporary Cuisine II** (Credit: 5) (Prerequisite: CUL 215) Emphasizes supervision, and management concepts, knowledge, and skills necessary to restaurants serving contemporary cuisine. Topics include: menu selection, layout and design, on/off premise catering, entrepreneurship, and small business management. Laboratory demonstrations and student experimentation parallel class work. (2-2-6-5)

**DDF 100, Drafting Fundamentals** (Credit: 6) (Prerequisite: Provisional admission) Introduces fundamental concepts and operations necessary to utilize microcomputers for developing fundamental drafting techniques. Emphasis is placed on the basic concepts, terminology, and techniques necessary for CAD applications. Topics include: history of drafting, safety practices, geometric terms/media sizes, hardware and software care and use, basic entities, CAD commands, line relationships, basic CAD applications, and geometric construction. (2-8-0-6)

**DDF 101, Introduction to Drafting** (Credit: 6) (Prerequisite: Provisional admission) Emphasizes the development of fundamental drafting techniques. Topics include: safety practices, terminology, care and use of drafting equipment, lettering, line relationships, and geometric construction. (2-8-0-6)

**DDF 102, Size and Shape Description I** (Credit: 5) (Prerequisite: DDF 101 or DDF 100) Provides multiview and dimensioning techniques necessary to develop views that completely describe machine parts for manufacture. Topics include: multiview drawing, basic dimensioning practices, tolerances and fits, sketching, and precision measurement. (1-9-0-5)

**DDF 103, Size and Shape Description II** (Credit: 5) (Prerequisite: DDF 102) Continues dimensioning skill development and introduces sectional views. Topics include: advanced dimensioning practices and section views. (1-9-0-5)



**DDF 105, Auxiliary Views** (Credit: 3) (Prerequisite: DDF 102) Introduces techniques necessary for auxiliary view drawings. Topics include: primary auxiliary views and secondary auxiliary views. (1-4-0-3)

**DDF 106, Fasteners** (Credit: 6) (Corequisite: DDF 102) Provides knowledge and skills necessary to draw and specify fasteners. Topics include: utilization of technical reference sources, types of threads, representation of threads, specifying threads, fasteners, springs and welding symbols. (3-6-0-6)

**DDF 107, Introduction to CAD** (Credit: 6) (Prerequisite/Corequisite: DDF 102, SCT 100) Introduces basic concepts, terminology, and techniques necessary for CAD applications. Topics include: terminology, CAD commands, basic entities, and basic CAD applications. (2-8-0-6)

**DDF 108, Intersections and Development** (Credit: 5) (Corequisite: DDF 102) Introduces the graphic description of objects represented by the intersection of geometric components. Topics include: surface development, establishment of true length, and intersection of surfaces. (1-9-0-5)

**DDF 109, Assembly Drawings I** (Credit: 5) (Corequisite: DDF 108) Provides knowledge and skills necessary to make working drawings. Topics include: detail drawings, orthographic assembly drawings, pictorial assembly drawings, and utilization of technical reference source. (1-9-0-5)

**DDF 111, Intermediate CAD** (Credit: 6) (Prerequisite: DDF 107) Continues developing CAD utilization skills in discipline-specific applications. Topics include: intermediate CAD commands, entity management, advanced line construction, block construction and management, command reference customization, advanced entity manipulation, and system variables. (2-8-0-6)

**DDF 112, 3-D Drawing and Modeling** (Credit: 6) (Corequisite: DDF 111) Continues developing CAD utilization skills in discipline-specific applications. Topics include: advanced CAD commands, CAD applications, macro utilization, application utilization, 3-D modeling, rendering, advanced application utilization, and pictorial drawings. (2-8-0-6)

**DDF 120, Introduction to Animation** (Credit: 6) Introduces students to the various techniques used to create 3D animations. Additionally, students will create animations utilizing digital lighting, materials, and other animation effects. Topics include: using various controllers, camera matching and tracking, hierarchy linking and inverse kinematics, mechanical motion, basic bone creation, and basic caricature creation. (2-8-0-6)

**DDF 125, Digital Lighting** (Credit: 6) Introduces students to more advanced techniques in lighting and rendering of computer-generated art and animations. Students will learn how to incorporate lighting affects into animation and still renderings. Topics include: lighting workflow, three point lighting, shadows, quality of light, and basic materials and rendering. (2-8-0-6)

**DDF 160, Introduction to Sequential Art and Storyboarding**, (Credit: 3) (Prerequisites: None) Introduces the student to basic drawing skills and techniques through traditional approaches to line, form, composition, and perspective. Students will learn how to apply basic drawing skills to create storyboards for animation and film. Topics include: two-dimensional drawing and design, and three-dimensional drawing and design. (1-4-0-3)

**DDF 162, Introduction to 3D Animation,** (Credit: 6) (Prerequisite: none) This course provides an introduction to the concepts of animation film and animation video. Students will learn the commands and concepts of popular animation software in a sequence that is easy to understand. Topics include: the history of animation, practical applications, storyboarding, script writing, and character development. (2-8-0-6)

**DDF 164, Character Animation,** (Credit: 6) (Prerequisite: DDF 162) Introduces basic concepts of 3D animation design, texturing, and animation skills for both characters and environments. Topics include: simple model creation, lighting techniques, material and texture application, character animations, and rendering images and animations. (2-8-0-6)

**DDF 191, Engineering Graphics** (Credit: 3) (Prerequisite: Program admission) Introduces engineering drawing. Surveys various styles of engineering sketching and computer-aided drafting (CAD) techniques. Additionally, the student prepares sample engineering working drawings. Topics include: freehand sketching, computer-aided drafting (CAD) fundamentals, and working drawings. Laboratory work parallels class work. (1-0-6-3)

**DDS 202, Advanced CAD** (Credit: 6) (Prerequisites: DDF 107 and MAT 104) Continues development of CAD utilization skills in discipline specific applications. Topics include: DOS usage, advanced CAD commands, CAD applications, macro utilization, and application utilization. (2-8-0-6)

**DDS 204, Estimating** (Credit: 3) (Prerequisites: DDS 207 and MAT 191) Introduces the essential skills necessary for assessing expected construction materials, labor requirements, and costs for construction practices. Topics include print reading, material take-offs, material and labor costs along with the use of reference sources. (2-0-3-3)

**DDS 205, Residential Architectural Drawing I** (Credit: 6) (Prerequisite: DDF 107) Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include: footing, foundation, and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; and specifications. (2-8-0-6)

**DDS 207, Mechanical Systems for Architecture** (Credit: 3) (Prerequisite: DDS 205) Reinforces technical knowledge and skills required to develop accurate mechanical and electrical plans. Topics include: heating, ventilation, and air conditioning calculations and plans; electrical calculations and plans; and plumbing calculations and plans. (1-4-0-3)

**DDS 208, Residential Architectural Drawing II** (Credit: 6) (Prerequisite: DDS 205) Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include: footing, foundation, and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; specifications; and mechanical and electrical systems. (2-8-0-6)

**DET 121, Diesel Technology, Tools, and Safety** (Credit: 5) (Prerequisite: Program admission) Introduces basic knowledge and skills the student must have to succeed in the DET field. Topics include: an overview of diesel powered vehicles, diesel technology safety skills, basic tools and equipment, reference materials, measuring instruments, shop operation, mechanical fasteners, and welding safety

and basic skills. Classroom and lab experiences on safety, precision measuring, and basic shop practices are highly emphasized. (2-2-6-5)

**DET 123, Preventative Maintenance I** (Credit: 3) (Prerequisite: DET 121) Introduces preventative maintenance procedures pertaining to medium/heavy duty trucks and heavy equipment. Topics include: engine systems, and cab and hood areas. (1-2-6-4)

**DET 124, Preventative Maintenance II** (Credit: 3) (Prerequisite: DET 123) A continuation of DET 123. Introduces preventative maintenance procedures pertaining to medium/heavy duty trucks and heavy equipment. Topics include: electrical and electronic systems and frame and chassis systems. (1-2-3-3)

**DET 125, Electrical/Electronic Systems** (Credit: 6) (Prerequisite: DET 121) Introduces basic electrical/electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: introduction to diesel electrical/electronic systems, understanding circuits and circuit devices, developing basic diagnosis and repair skills, and understanding vehicle computer controls. Classroom and lab instruction on digital meter usage and interpreting is highly emphasized. (1-2-6-4)

**DET 127, Starting and Charging Systems** (Credit: 5) (Prerequisite: DET 125) Introduces starting and charging systems used on medium/heavy duty trucks and heavy equipment. Topics include: battery diagnosis and servicing, starting systems diagnosis and repair, and charging systems diagnosis and repair. Using and interpreting test instruments and troubleshooting is highly emphasized. (1-2-3-3)

**DET 129, Hydraulic Systems I** (Credit: 2) (Prerequisite: DET 125) Introduces basic hydraulic principles and systems used on medium/heavy duty trucks and heavy equipment. Topics include: hydraulic theory, lines, fittings, and couplings, and fluids and lubricants. Classroom and lab experiences on basic hydraulic systems, preventive maintenance and safety are highly emphasized. (1-2-6-4)

**DET 131, Electronic Controls and Accessory Systems** (Credit: 6) (Prerequisite: DET 125) Introduces electronic controls and accessory systems used on medium/heavy duty trucks and heavy equipment. Topics include: lighting systems diagnosis and repair, driver information systems diagnosis and repair, related electrical components, and miscellaneous electrical accessories. Using and interpreting test instruments and troubleshooting is highly emphasized. (3-2-3-5)

**DET 132, Diesel Engine Overhaul/Service I** (Credit: 4) (Prerequisite: DET 125) Introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include: introduction to engine principles and procedures, engine disassembly and cleaning procedures, engine components failure analysis, and engine parts procurement. Using and interpreting test and measuring instruments is highly emphasized. (3-2-3-5)

**DET 133, Diesel Engine Overhaul/Service II** (Credit: 4) (Prerequisite: DET 132) A continuation of DET 132, introducing diesel engines used in medium/heavy duty trucks and heavy equipment, with emphasis on engine systems and components. Topics include: lubricating systems, cooling systems, cylinder blocks and liners, crankshafts and bearings, pistons and connecting rods, camshafts, gear trains and timing, cylinder head assemblies, air induction and exhaust systems, and engine brakes and retarders. Using and interpreting test and measuring instruments is highly emphasized. (2-4-3-5)

**DET 135, Diesel Engine Fuel System, Tune-up and Performance** (Credit: 4) (Prerequisite: DET 125) Introduces fuel systems used on medium/heavy duty trucks and heavy equipment. Topics include: basic fuel systems and components, mechanical fuel injection systems, electronic fuel injection diagnosis and repair, emissions, general engine diagnosis, and tune-up and preventive maintenance. Interpreting test instruments along with diagnosing and troubleshooting are highly emphasized. (2-4-3-5)

**DET 137, Heating, Ventilation and Air Conditioning** (Credit: 6) (Prerequisite: DET 125) Introduces HVAC systems used in medium/heavy duty trucks and heavy equipment. Classroom instruction on HVAC theory and operation along with local, state, and federal regulations are strongly emphasized. Topics include: HVAC system theory and operation, A/C system component diagnosis and repair, HVAC system diagnosis and repair, operating systems and related controls, and refrigerant recovery, recycling, and handling procedures. (2-4-3-5)

**DET 211, Hydraulic Brake Systems** (Credit: 4) (Prerequisite: DET 125) Introduces hydraulic brake systems used on medium/heavy duty trucks. Classroom theory on brake systems along Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: introduction to brakes, wheel bearings and seals, antilock brake systems, hydraulic foundation drum brakes, hydraulic foundation disc brakes, hydraulic systems, and power assist units. (2-2-3-4)

**DET 213, Air Brake Systems** (Credit: 4) (Prerequisite: DET 125) Introduces air brake systems used on medium/heavy duty trucks. Classroom theory on brake systems along Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: air foundation brakes, air supply system, air service circuits, special circuits, and trailer air brake systems. (1-0-9-4)

**DET 215, Steering and Suspension Systems I** (Credit: 3) (Prerequisite: DET 125) Introduces steering and suspension systems used on medium/heavy duty trucks. Classroom instruction of Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: cab components, tires, rims and wheels, chassis components, manual and power steering systems, steer axles, and suspension systems. (1-0-7-3)

**DET 216, Steering and Suspension Systems II** (Credit: 3) (Prerequisite: DET 215) This is a continuation of DET 215. Introduces steering and suspension systems used on medium/heavy duty trucks. Classroom instruction of Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: suspension systems and vehicle alignment. Emphasis is on the rear end of the vehicle. (1-0-6-3)

**DET 217, On Highway Truck Power Train Systems I** (Credit: 4) (Prerequisite: DET 125) Introduces power train systems used on medium/heavy duty trucks. Topics include: introduction to power trains, clutches and flywheels, electronic systems pertaining to medium/heavy duty power trains, mechanical transmissions, and power take-offs. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized. (1-2-6-4)

**DET 218, On Highway Truck Power Train Systems II** (Credit: 4) (Prerequisite: DET 125) Continues with subject matter introduced in DET 217. Introduces power train systems used on medium/heavy duty trucks. Topics include: drivelines, differentials and final drives. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized. (1-2-6-4)

**DET 220, Automatic Transmissions** (Credit: 4) (Prerequisite: DET 125) Introduces automatic transmissions used on medium/heavy duty trucks. Topics include: torque converters and automatic transmissions. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized. (2-2-3-4)

**DET 230, Hydraulic Systems II** (Credit: 4) (Prerequisite: DET 129) Introduces hydraulic systems and components used on heavy equipment. Classroom and lab instruction on components and systems emphasizes the use of testing and diagnosis equipment. Topics include: reservoirs, seals, accessories, general maintenance, pumps, valves, cylinders, motors, and hydraulic schematics and circuits. (2-0-6-4)

**DET 231, Hydraulic Systems III** (Credit: 4) (Prerequisite: DET 230) A continuation of DET 230, introducing hydraulic systems and components used on heavy equipment. Classroom and lab instruction on components and systems emphasizes the use of testing and diagnosis equipment. Topics include: general hydraulics, load sensing pressure compensation hydraulic systems, and pilot operated hydraulic systems. (2-0-6-4)

**DET 233, Heavy Equipment Power Train Systems I** (Credit: 4) (Prerequisite: DET 125) Introduces powertrains used on heavy equipment such as bulldozers, excavators, wheel loaders, and back-hoe loaders. Classroom and lab instruction on components and systems with use and interpreting testing and diagnosing equipment are highly emphasized. Topics include: powertrain theory and principles, clutches, manual transmissions, drive shafts, differentials, final drives, special drives, failure analysis, and terminology. (3-2-3-5)

**DET 234, Heavy Equipment Power Train Systems II** (Credit: 4) (Prerequisite: DET 233) A continuation of DET 233, introducing powertrains used on heavy equipment such as bulldozers, excavators, wheel loaders, and back-hoe loaders. Classroom and lab instruction on components and systems with use and interpreting testing and diagnosing equipment are highly emphasized. Topics include: torque converters, hydraulically shifted transmissions, electronic transmissions, hydrostatic transmissions, failure analysis, and terminology. (3-2-3-5)

**DMP 101, Art History/Color Theory/Typography** (Credit: 5) (Prerequisite: MAT 191 and ENG 191 ready) This course will provide the student with a history of graphic design fundamentals. Students will also focus on the design essentials utilized in broadcast and motion graphics. The uses of typography, color theory, composition and drawing skills will also be discussed. Students will also be exposed to the many different aspects of motion graphics relating to broadcast video, film and web design. (5-0-0-5)

**DMP 102, Introduction to Graphics for Broadcast** (Credit: 5) (Corequisite: DMP 101 and DMP 103 or ENT 103; Prerequisite: ENT 101 or DMP 101 with C or better) Students will gain firsthand experience in the processes used in creating the still graphics used in broadcast production. This class will also focus on fundamentals of the Photoshop interface and its role in creating still graphics for broadcast production. Students will also be required to design a graphics package into a broadcast-ready product. (5-0-0-5)

**DMP 103, Introduction to Illustrator** (Credit: 5) (Prerequisite: DMP 101) This course will focus on learning the essential tools needed to create broadcast/motion graphics utilizing Adobe Illustrator software. Several projects will be completed to fine tune the students' knowledge of using vector based graphics in a broadcast/motion environment. (4-6 hours lab time required) (5-0-0-5)

**DMP 104, 3D Graphics Design 1** (Credit: 5) (Prerequisites: DMP 202 and ENT103) This course will focus on the various aspects of 3D graphics as applied to a motion graphics environment. Modeling, texturing and lighting using Cinema4D software will be the primary focus of the course. Students will be required to create various 3D elements that can be utilized within a motion graphics/broadcast environment. (5-0-0-5)

**DMP 202, Intermediate Graphics for Broadcast** (Credit: 5) (Prerequisite: DMP 102) This course will provide the student with the more advanced and artistic uses of Photoshop as a design tool. Students will be required to design a finished storyboard into a broadcast-ready show open. Emphasis will be on drawing skills, typography, logo creation, color design and composition. (4-6 hours lab time required) (5-0-0-5)

**DMP 203, Web Design/Development** (Credit: 5) (Prerequisites: DMP 206 and DMP 202) The student will explore web-specific production techniques utilizing interactivity and basic animation tools using industry standard software. Students will also examine the development of the web as a viable advertising tool as well as the history and future of this medium. (5-0-0-5)

**DMP 204 Web Design/Development 2** (Credit: 5) (Prerequisite: DMP 203) This is an advanced course expanding on the former aspects of Web development. This class will emphasize the development of skill sets necessary in making decisions about design planning employed in the process of Web development. Through hands-on lessons, the students will focus on html coding, Flash animation and other aspects of functionality employed in good Internet design. (5-0-0-5)

**DMP 205, DVD Menu Creation** (Credits: 5) (Prerequisites: DMP 212, DMP 206, DMP 207, DMP 104, DMP 208 and DMP 216) This course will focus on the creation of interactive menus to be used for DVD production. The first half of the course will focus on using DVD Studio pro to create the menus. The second half of the course will focus on the use of Photoshop to create custom buttons and interactive menus for use in DVD Studio Pro. (5-0-0-5)

**DMP 206, Introduction to After Effects (formerly ENT206)** (Credit: 5) (Prerequisites: DMP 104 and DMP 202) Students will be introduced to the After Effects interface as well as the major features and functions of the program. This class will focus primarily on compositing and special effects that are used in film and broadcast production. (5-0-0-5)

**DMP 207, Intermediate After Effects (formerly ENT209)** (Credit: 5) (Prerequisites: DMP 206 and DMP 203) Students will further develop an understanding of graphic techniques utilizing industry standard software and various research materials. The course also begins covering in-depth the use of 3D within After Effects to create broadcast quality animations. The emphasis on the function and operation of equipment and software to achieve advanced broadcast animations will also be covered. (5-0-0-5)

**DMP 208, 3D Graphics Design 2** (Credits: 5) (Prerequisite: DMP 104) The student will continue the process of understanding aesthetics and techniques for building, lighting, assigning surface attributes, and rendering of three-dimensional, computer-generated animations. The students will study the creation and modification of customized three-dimensional models as well as the techniques involved in compositing video, sound, and computer-generated images. (5-0-0-5)

**DMP 212 Advanced Motion Graphics Projects/Story Development/Storyboarding** (Credit: 5) (Prerequisites: DMP 206, DMP 207, DMP 104 and DMP 208) This advanced course will focus on taking the students' existing skill sets to the highest possible level. Students will further examine the concepts of taking a project from idea to completion. Workflows in existing broadcast/animation studios will also be investigated and studied in depth. (5-0-0-5)

**DMP /ENT 215, Entertainment Technology Internship** (Credits: 5) (Prerequisite: Second-year student standing and permission of sequence internship coordinator or instructor.) The second-year student will gain practical experience in a professional setting. A minimum of 15 hours of work per week, plus related assignments will be required. This course can be repeated for one-to-three modules, not to exceed a total of 10 credits, with permission of instructor. (5-0-0-5)

**DMP 216, Portfolio/Demo Reel 1** (Credits: 5) (Prerequisites: DMP 212, DMP 206, DMP 207, DMP 104 and DMP 208) In this course, students will complete projects that will be used in their portfolio/demo reel. All of the previous skill sets will be engaged in the creation of finished pieces that the student will send to potential employers. Weekly in-class critiques by the instructor will enable the student to polish their projects for maximum effectiveness. (5-0-0-5)

**DMP 217, Motion Graphics Studio** (Credits: 5) (Prerequisites: DMP 212, DMP 206, DMP 207, DMP 104, DMP 208 and DMP 216) The student will be introduced to advanced industry standard techniques used in the production of broadcast/motion graphics. Topics covered will include background creation, 3D elements creation, advanced compositing and Photoshop tips and tricks. (5-0-0-5)

**DMP 218, Portfolio/Demo Reel 2**(Credits: 5) (Prerequisites: DMP 212, DMP 206, DMP 207, DMP 104, DMP 208 and DMP 216) This advanced course will focus on further refining and polishing the students' work for portfolio/demo reel presentation. The course will focus largely on what potential employers do/don't want to see on portfolios/demo reels. The instructor will advise the student on sequencing, outputting and presentation to achieve optimum results. (5-0-0-5)

**ECE 1010 (ECE 101), Introduction to Early Childhood Care and Education** (Credit: 5) (Prerequisite: Provisional admission) Introduces concepts relating the responsibilities and procedures involved in a variety of early childhood care situations. This course addresses key CDA competency goals and functional areas. Topics include: historical perspectives, career opportunities, work ethics, functioning in a team environment, guidance, transitional activities, program management, learning environment cultural diversity, licensing and accreditation, and professional development file (portfolio) guidelines. In this course, students will submit a criminal record check in order to complete field work and practicum experiences throughout the program. (5-0-0-5)

**ECE 1012 (ECE 112), Curriculum Development** (Credit: 3) (Prerequisite: ECE 1010 and ECE 1030;) This course assists the student in understanding that play, developmental integration and active learning are critical to achieving meaningful curriculum for young children. The course develops knowledge and skills that will enable the student to establish a learning environment appropriate for young children. Topics include: instructional media, learning environments, curriculum approaches, development of curriculum plans and materials, transitional activities, approaches to teaching, learning, and assessing, and appropriate assessment strategies. (3-0-2-3)

**ECE 1013 (ECE 113), Art for Children** (Credit: 3) (Prerequisite: ECE 1010 and ECE 1030) This course introduces the concepts related to creativity in art. This course combines lecture and lab experience to introduce the many media areas used by children to express themselves. Topics include: concepts of creativity and children's creative development; facilitation of children's creative expression; appreciation of children's art processes and products; and art appreciation. (1-4-0-3)

**ECE 1014 (ECE 114), Music and Movement** (Credit: 3) (Prerequisite: ECE 1010 and ECE 1030) This course introduces the concepts related to creativity in music and movement. This course combines lecture and lab experiences to introduce media, methods, and materials used to foster musical activity and creative movement. Topics include: spontaneous and planned music and movement; media, methods and materials; coordination of movement and music; theoretical foundations; and music appreciation. (1-4-0-3)

**ECE 1021 (ECE 121), Early Childhood Care and Education Practicum I** (Credit: 3) (Prerequisite: ECE 1010, 1030, 1050, and 1012) This course provides the student with the opportunity to gain a supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management. (1-0-6-3)

**ECE 1022 (ECE 122), Early Childhood Care and Education Practicum II** (Credit: 3) (Prerequisite: ECE 1021) This course provides the student with the opportunity to gain a supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; and becoming a professional. (1-0-6-3)

**ECE 1025 (ECE 125), Professionalism Through CDA Certification Preparation** (Credit: 2) (Prerequisite: Program admission) Provides training in professionalism *through* Child Development Associate Credentialing Certificate preparation in the following areas: applying for the Child Development Associate Credential through Direct Assessment; professional resource file development; and strategies to establish positive and productive relationships with families. (2-1-0-2)

**ECE 1026 (ECE 126), CDA Certificate Assessment Association** (Credit: 2) (Prerequisite: Program admission) Provides opportunities to demonstrate and obtain documentation of student competency. Topics include: Professional resource file completion; parent opinion questionnaires; formal observation; oral interview; and written assessment. (2-1-0-2)

**ECE 1030 (ECE 103), Human Growth and Development I** (Credit: 5) (Prerequisite: Provisional admission) Introduces the student to the physical, social, emotional, and cognitive development of the young child (0 through 5 years of age). Provides for competency development in observing, recording, and interpreting growth and development stages in the young child, advancing physical and intellectual competence, supporting social and emotional development, and providing positive guidance. Topics include: developmental characteristics, observation and recording theory and practice, guidance techniques, developmentally appropriate practice, and introduction to children with special needs. In



this course, students will submit a criminal record check in order to complete field work and practicum experiences throughout the program. (5-0-0-5)

**ECE 1050 (ECE 105), Health, Safety and Nutrition** (Credit: 5) (Prerequisite: Provisional admission) Introduces the theory, practices, and requirements for establishing and maintaining a safe, healthy learning environment. Topics include: CPR and first aid, health issues, child abuse and neglect, and nutritional needs of children. In this course, students will submit a criminal record check in order to complete field work and practicum experiences throughout the program. (5-0-0-5)

**ECE 1052 (ECE 152), Early Adolescent Development** (Credit: 5) (Prerequisite: Program admission) Introduces the student to the physical, social, emotional, and intellectual development of the early adolescent (12 – 15 years of age). Provides learning experiences related to the principles of human growth, development, and maturation, and theories of learning and behavior. Topics include developmental characteristics, guidance techniques, and developmentally appropriate practice. (5-0-0-5)

**ECE 2010 (ECE 201), Exceptionalities** (Credit: 5) (Prerequisite: ECE 1030) This course provides for the development of knowledge and skills that will enable the student to understand individuals with special needs and appropriately guide their development. Special emphasis is placed on acquainting the student with programs and community resources that serve families with children with special needs. Topics include: inclusion/least restrictive environment (LRE), physical disabilities and health disorders, intellectual exceptionalities, social/emotional disorders, and community resources. (5-0-0-5)

**ECE 2020 (ECE 202), Social Issues and Family Involvement** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030) Enables the student to become familiar with the social issues that affect families of today and to develop a plan for coping with these issues as they occur in the occupational environment. Students are introduced to local programs and agencies that offer services to those in need. Topics include: professional responsibilities, family/social issues, community resources, parent education and support, teacher-parent communication, community partnerships, social diversity and anti-bias issues, transitioning the child, and school family activities. (5-0-0-5)

**ECE 2030 (ECE 203), Human Growth and Development II** (Credit: 5) (Prerequisite: ECE 1030) This course introduces the student to the physical, social, emotional, and intellectual development of human beings from age 6 through the lifespan, emphasizing school aged children (6-12 years of age). Provides learning experiences related to the principles of human growth, development, and theories of learning and behavior. Topics include: developmental characteristics, guidance techniques, ages and stages of development, introduction to children with special needs, and observation and recording techniques. (5-0-0-5)

**ECE 2110 (ECE 211), Methods and Materials** (Credit: 5) (Prerequisite: ECE 1012) This course develops skills to enable the student to work as a paraprofessional in a program for pre-kindergarten through elementary aged children. Topics include: instructional techniques, curriculum, materials for instruction, and learning environments. (5-0-0-5)

**ECE 2115 (ECE 115), Language Arts and Literature** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030) This course develops knowledge and skills that will enable the student to plan and implement developmentally appropriate listening, speaking, writing, and reading activities for young children. Topics include: reading readiness, oral communication activities, writing readiness, listening

comprehension, literature selection, story presentation, and stages of language acquisition and use of technology in language. (5-0-0-5)

**ECE 2116 (ECE 116), Math and Science** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030) Presents the process of introducing science and math concepts to young children. Includes planning and implementation of appropriate activities and development of methods and techniques of delivery. Topics include: cognitive stages and developmental process in math and science, math and science activity planning, and development of math and science materials. (5-0-0-5)

**ECE 2120 (ECE 212), Professional Practices** (Credit: 5) (Corequisite: ECE 2110) Develops knowledge that will enable the student to work as a paraprofessional in a program for pre-kindergarten through elementary aged children. Topics include: professional qualifications, professionalism, supervised planning, application of guidance techniques, and classroom management. (5-0-0-5)

**ECE 2132 (ECE 132), Infant/Toddler Development** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030) Introduces the three developmentally meaningful age periods during infancy. Provides knowledge, grounded in brain and attachment research, about how children learn and the skills and attitudes necessary to support optimum social/emotional, cognitive, and physical development for children from birth to three. Principles of brain development and language and communication will be explored in depth. Special emphasis is placed on experiential learning to show caregivers practical ways of meeting the fundamental needs of all infants in group care settings and of helping them learn the lessons that every infant comes into the world eager to learn. The needs of infants and toddlers with established disabilities as well as those at risk for developmental problems will be examined from the perspective of early intervention and inclusion. (5-0-0-5)

**ECE 2134 (ECE 134), Infant/Toddler Group Care** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030) This course provides the knowledge, skills and attitudes necessary to meet the fundamental needs of children from birth to three in group care settings. Establishes a foundation for a responsive, relationship-based curriculum for children birth to three who are in group care settings. Introduces the philosophy behind primary care, continuity of care, and respectful care. Explores ways of creating environments for infant/toddler group care which foster optimum social/emotional, physical and cognitive development, promote cultural sensitivity and encourage positive parent caregiver relations. (5-0-0-5)

**ECE 2136 (ECE 136), Infant/Toddler Curriculum** (Credit: 5) (Prerequisites: ECE 2132 and ECE 2134) Addresses the basic issues of how to translate significant research findings about the relationship of early brain and language development into classroom practices and how to arrange optimal learning experiences/activities at both the individual and group levels. Utilizes the latest findings about the minds of children and how they discover the world as well as developmental profiles and characteristics of children in a specific age range to present materials and strategies that may be used with individual children birth to age three. Examines how to design and implement learning experiences geared to address each child's needs regardless of how typical or atypical that child's development. Addresses strategies to most effectively work with a group of very young children, one or more of which may be significantly challenged in physical, cognitive, language, social, or behavioral development. (5-0-0-5)

**ECE 2170 (ECE 217), Program Administration** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030 or instructor approval) Provides training in planning, implementation, and maintenance of an effective

early childhood program. Topics include: organization, mission, philosophy, goals and history of a program; types of programs; laws, rules, regulations, accreditation, and program evaluation; needs assessment; administrative roles and board of directors; marketing, public, and community relations; grouping, enrollment and retention; working with parents; professionalism and work ethics; and time and stress management. (5-0-0-5)

**ECE 2210 (ECE 221), Facility Management** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030 or instructor approval) Provides training in early childhood facilities management. Topics include: space management; money management, and program, equipment and supplies management. (5-0-0-5)

**ECE 2220 (ECE 222), Personnel Management** (Credit: 5) (Prerequisite: ECE 1010 and ECE 1030 or instructor approval) This course provides training in personnel management in early childhood settings. Topics include: staff records; communication; personnel planning; personnel policies; managing payroll, recruitment, selection, interviewing, hiring, motivating, firing, and staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluation; and ethical responsibilities to employees. (5-0-0-5)

**ECE 2240 (ECE 224), Early Childhood Care and Education Internship** (Credit: 12) (Prerequisite: ECE 1022) Provides the student with the opportunity to gain experience in a simulated or actual work setting. Students will be placed in an approved setting(s) throughout the quarter where planning, implementing, observing, and evaluating activities are the focus of their involvement. An evaluation procedure will be used by the designee of the institution and the on-site supervisor to critique the student's performance. Topics include: problem solving, use of proper interpersonal skills, application of developmentally appropriate practice, professional development and resource file (portfolio) development. (0-0-36-12)

**ECE 2260 (ECE 260), Characteristics of Young Children with Exceptionalities** (Credit: 5) (Prerequisite: ECE 2010) This course prepares child care providers and paraprofessionals with knowledge and skills in the area of physical and motor impairments, talented and giftedness, intellectual and cognitive disabilities, emotional and behavioral disorders, communication disorders in speech and language, autism spectrum disorders, visual impairments, deaf and hard of hearing, health impairments, and multiple disabilities. (5-0-0-5)

**ECE 2262 (ECE 262), Classroom Strategies and Intervention** (Credit: 5) (Prerequisite: ECE 2010) This course prepares child care providers and paraprofessionals with knowledge and skills in the area of coping with a disability, working with families as partners, examining the laws and regulations, exploring resources, service providers and agencies that may assist the child and their family, examining the adaptations and modifications to facilities and environments, reviewing the referral process, implementing inclusion, modifying teaching and instruction to accommodate the child with special needs, and investigating ways to document and chart observations. (5-0-0-5)

**ECE 2264 (ECE 264), Exploring Your Role in the Exceptional Environment** (Credit: 5) (Prerequisite: ECE 2010) This course prepares child care providers and paraprofessionals with knowledge and skills in the area of examining the assessments and screenings used for placement, exploring resources, service providers and agencies that may assist the child in the child care or educational environment, examining the adaptations and modifications to environments, reviewing the referral process, implementing inclusion, and modifying teaching and instruction to accommodate the child with special needs. (3-0-6-5)

**ECO 1101 (ECO 191), Principles of Economics** (Credit: 5) (Prerequisite: Program admission) Provides a description and analysis of economic operations in contemporary society. Emphasis is placed on developing an understanding of economic concepts and policies as they apply to everyday life. Topics include: basic economic principles; economic forces and indicators; capital and labor; price, competition, and monopoly; money and banking; government expenditures, federal and local; fluctuations in production, employment, and income; and United States economy in perspective. (5-0-0-5)

**ECO 2105 (ECO 193), Principles of Macroeconomics** (Credit: 5) (Prerequisite: Program admission) Provides a description and analysis of macroeconomic operations in contemporary society. Emphasis is placed on developing an understanding of macroeconomic concepts and policies. Topics include: basic economic principles; macroeconomic principles; macroeconomic theory; macroeconomic policy; money and banking; and United States economy in perspective. (5-0-0-5)

**ECO 2106 (ECO 192), Principles of Microeconomics** (Credit: 5) (Prerequisite: Program admission) Provides a description and analysis of microeconomic operations in contemporary society. Emphasis is placed on developing an understanding of microeconomic concepts and theories as they apply to daily life. Topics include: basic economic principles; theory of the corporate firm; market system; market structure, pricing, and government regulation; resource markets; and international trade. (5-0-0-5)

**EET 101, DC Circuit Analysis** (Credit: 5) (Prerequisite: MAT 103 ready) Emphasizes the knowledge and ability to analyze basic DC circuits. Topics include: international units, basic electrical laws, series and parallel circuits, capacitance, network analysis concepts, network theorem concepts, and DC instruments. Laboratory work parallels class work. (4-3-0-5)

**EET 102, AC Circuit Analysis I** (Credit: 5) (Prerequisites: EET 101) Emphasizes the knowledge and ability to analyze basic AC circuits. Topics include: magnetism, inductance/capacitance, alternating current, AC network theorem, admittance, impedance, phasors, complex power, and applications and uses of appropriate instruments. Laboratory work parallels class work. (4-0-3-5)

**EET 103, Advanced Circuit Analysis** (Credit: 5) (Prerequisites: EET 102 and MAT 194) Continues the study of AC circuit analysis with emphasis on transient analysis and network theorems. Topics include: analysis of complex networks, resonance, transformers, multiple sources, three-phase systems, nonsinusoidal waveforms, transient analysis, and filters and bode plots. Laboratory work parallels class work. (4-0-3-5)

**EET 105, Electronic Devices** (Credit: 5) (Prerequisite: EET 102) Introduces the conduction process in semi-conductor materials. Topics include: semi-conductor physics, diodes, bipolar junction transistors, field effect transistors (FET's), silicon controlled rectifiers, and device curve characteristics. Laboratory work parallels class work. (4-0-3-5)

**EET 191, Computer Programming Fundamentals** (Credit: 5) (Prerequisite: Program admission or SCT 100) Emphasizes fundamental concepts of problem solving using computers. Students explore flow-charting, control structures, subroutines, arrays, strings manipulation, matrices, and files. A high level source language is used. The laboratory portion of the course is designed to acquaint students with computer facilities and software utilities. Topics include: system fundamentals, concepts of structured

programming (high level source language), arrays, functions and subroutines, data files, engineering applications, graphics, matrices, and program editing. Laboratory work parallels class work. (3-0-6-5)

**EET 201, Digital Fundamentals** (Credit: 5) (Prerequisite: EET 101) Introduces digital electronics. Topics include: fundamentals of digital techniques, integrated logic circuits, flip-flops and registers, sequential logic circuits, combinational logic circuits, and memory circuits. Laboratory work parallels class work. (4-0-3-5)

**EET 203, Microcomputer Fundamentals** (Credit: 5) (Prerequisite: EET 201) Continues the study of digital electronics. Topics include: arithmetic and logic conversions, microcomputer architecture, machine level language programming, and assembly level language programming. Laboratory work parallels class work. (4-0-3-5)

**EET 204, Linear Integrated Circuits** (Credit: 5) (Prerequisite: EET 101) Emphasizes the analysis of operational amplifiers and other linear circuits and their applications. Topics include: op-amp fundamentals; inverting and non-inverting amplifiers; comparators; bias, offsets, and drift; bandwidth, slew rate, noise, and frequency compensation; active filters; power supplies; signal generators; multipliers; and differentiators and integrators. Laboratory work parallels class work. (4-0-3-5)

**EET 206, Computer Systems and Applications** (Credit: 5) (Prerequisite: EET 203 or ELC 120) Emphasizes study of the microcomputer with programming applications involving processor communication with external devices. Topics include: I/O and interfacing techniques, basic I/O and interfacers, interrupt devices, problem definition, debugging, testing, documentation, redesign steps, and programmable processors. Laboratory work parallels class work. (4-0-3-5)

**EHO 100, Horticulture Science** (Credit: 5) (Prerequisite: Provisional admission) Introduces the fundamentals of plant science and horticulture as a career field. Topics include: industry overview, plant parts, plant functions, environmental factors in horticulture, soil function and components, fertilizer elements and analysis, and propagation techniques. (5-0-0-5)

**EHO 101, Woody Ornamental Plant Identification** (Credit: 6) (Prerequisite: Provisional admission) Provides the basis for a fundamental understanding of the taxonomy, identification, and culture requirements of woody plants. Topics include: introduction to woody plants, classification of woody plants, and woody plant identification and culture requirements. (5-2-0-6)

**EHO 102, Herbaceous Plant Identification** (Credit: 5) (Prerequisite: Provisional admission) Emphasizes the taxonomy, identification, and culture requirements of herbaceous plants. Topics include: introduction to herbaceous plants, classification of herbaceous plants, and herbaceous plant identification and culture requirements. (5-0-0-5)

**EHO 103, Greenhouse Operations** (Credit: 3) (Prerequisite: Provisional admission) Develops a basic understanding of greenhouse design, construction, and environmental factors affecting plant growth. Topics include: greenhouse construction, greenhouse heating and cooling, greenhouse soil functions and components, irrigation types and effects, fertilizer types and applications, and fall crops for the local area. (2-0-3-3)

**EHO 104, Basic Landscape Construction** (Credit: 4) (Prerequisite: Provisional admission) Develops skills necessary to design and construct landscape features such as retaining walls, landscape paving, and

drainage systems. Topics include: tool use and safety, retaining walls, drainage systems and erosion protection, and landscape paving. (2-2-3-4)

**EHO 105, Nursery Production** (Credit: 4) (Prerequisite: Provisional admission) Develops skills necessary to propagate and produce both container and field grown nursery stock. Topics include: industry overview, facility design, propagation techniques and environment, field grown and container production, and managerial functions for nursery production. (2-2-3-4)

**EHO 106, Landscape Design** (Credit: 5) (Prerequisites: Provisional admission, EHO 100 and EHO 101) Introduces design principles, drawing skills, and plant selection techniques required to produce landscape plans for residential/commercial clients. Topics include: landscape design principles, sketching and drawing skills, site analysis, plant and material selection, and landscape design process. (2-2-6-5)

**EHO 107, Landscape Installation** (Credit: 3) (Prerequisite: Provisional admission) Introduces cultural techniques required for proper landscape installation with emphasis on practical application. Topics include: landscape installation procedures and managerial functions for landscape installers. (2-0-3-3)

**EHO 108, Pest Management** (Credit: 5) (Prerequisite: Provisional admission) Provides experience in insect, disease, and weed identification and control with emphasis on safety and legal requirements for state licensure. Topics include: identification of insects, diseases, and weeds; safety regulations; equipment use and care; and regulations for licensure. (5-0-0-5)

**EHO 112, Landscape Management** (Credit: 5) (Prerequisite: Provisional admission) Introduces cultural techniques required for proper landscape maintenance with emphasis on practical application and managerial techniques. Topics include: landscape management; landscape equipment safety, operation and maintenance and administrative functions for landscape managers. (2-2-6-5)

**EHO 114, Garden Center Management** (Credit: 3) (Prerequisite: Provisional admission) Presents cultural and managerial techniques required for success in the garden center industry. Topics include: garden center establishment, garden center management, and post-production handling and marketing. (2-0-3-3)

**EHO 115, Environmental Horticulture Internship** (Credit: 3) (Prerequisite: Completion of all EHO courses) Provides the student with practical experience in an actual job setting. This internship allows the student to become involved in on-the-job environmental horticulture applications that require practice and follow through. Topics include: work ethics, skills, and attitudes; demands of the horticulture industry; horticultural business management; and labor supervision. (0-0-10-3)

**EHO 123, Greenhouse Production** (Credit: 6) (Prerequisite: Provisional admission, EHO 100 and EHO 103) Continues hands-on experience in crop production with emphasis on spring foliage crops and managerial skills. Topics include: light and temperature; insects and diseases; production and scheduling; and winter, spring, and foliage crops for the local area. (4-0-6-6)

**EHO 125, Plant Propagation** (Credit: 5) (Prerequisite: Provisional admission) Introduces the student to the basic principles of plant propagation. Focus of the course will be hands-on experience. Topics include: seed germination, rooting cuttings, propagation facilities construction, layering, insect disease and control, and cultural controls for propagation. (3-0-6-5)

**EHO 131, Irrigation** (Credit: 5) (Prerequisite: Provisional admission) Provides students with exposure to the basic principles of hydraulics and fluidics. Special attention is given to watering plant materials in various soil and climatic conditions through the use of irrigation. Topics include: industry overview; fluidics and hydraulics; system design and installation. (3-2-3-5)

**EHO 133, Turfgrass Management** (Credit: 5) (Prerequisite: Provisional admission) A study of turfgrass used in the southern United States. Topics include: industry overview, soil and soil modification; soil fertility; turf installation; turf maintenance, turf diseases, insects and weeds: and estimating costs on management practices (3-2-3-5)

**EHO 141, Soils** (Credit: 5) (Prerequisite: Provisional admission) Provides instruction on the formation, classification, composition, properties, management, fertility and conservation of soils in relation to the growth of plants. Topics include: introduction, soil formation, soil classification, soil physical properties, soil chemistry, soil management, and soil organisms, and organic matter. (4-2-0-5)

**EHO 142, Golf Course Design Construction and Management** (Credit: 5) (Prerequisite: Provisional admission) Introduces basic golf course design principles as well as construction and renovation activities and basic golf course maintenance practices. Topics include: introduction and history, golf course design principles, golf course construction and golf course maintenance. (4-0-3-5)

**EHO 143, Garden Design** (Credit: 5) (Prerequisite: Provisional admission) Familiarizes student with approaches to garden and small outdoor space design. Class will examine various approaches to color theory and design theory relevant to designing gardens and small outdoor spaces. Topics include: basic landscape design principles, basic design elements, history of garden design, color theories, and development/construction of a garden plan. (4-0-3-5)

**EHO 156, Computer-Aided Landscape Design** (Credit: 3) (Prerequisite: Provisional admission and EHO 106) Introduces computer aided landscape design techniques and used in landscape design projects. Emphasis is placed on practical application of landscape design processes through use of computer applications. Topics include: software commands; scale and layers operations; and drawing and design. (1-0-6-3)

**EHO 163, Planting Design** (Credit: 5) (Prerequisite: Provisional admission and EHO 106) The professional aspects of landscape design related to the landscape contracting industry will be covered. The professional practices associated with the preparation of construction documents will be included. The required elements of construction document plans are also included. Evaluation of various construction plans will occur as well as the actual preparation of construction documents. (4-2-0-5)

**EHO 169, Horticulture Spanish** (Credit: 5) (Prerequisite: Provisional admission) An introduction to the Spanish language and Latino culture as applied to green industry managers. Topics include: introductory conversational Spanish with an emphasis on green industry vocabulary in the areas of Spanish verbs, nouns and grammar and understanding and appreciating aspects of Latino culture for more effective management. (5-0-0-5)

**EHO 172, Floral Design I** (Credit: 4) (Prerequisite: Provisional admission) Develops skills in the arrangement of flowers and filler materials to form marketable arrangements for special occasions. Topics include: floral materials, design, flower conditioning, arrangements. (2-0-6-4)

**EHO 180, GreenRoofs: Design, Build and Maintain** (Credit: 6) (Prerequisites: Provisional admission, EHO 100 and EHO 101) This course provides the student with the knowledge and skills to select components including drainage, soils and plant materials for, and design a Greenroof landscape. This emerging field encompasses many facets from plant selection, soils, drainage and others to provide us with more environmentally friendly landscapes in our urban environments. Students will learn about the unique challenges that face roof top gardening in an urban environment and how to handle those challenges through proper plant selection, drainage systems, soil selection, and design. (6-0-0-6)

**EHO 181, Urban Landscape Issues** (Credit: 6) (Prerequisite: Provisional admission and EHO 180) This course introduces the concepts and principles of sustainable urban landscapes. By using these concepts the student will be able to create outdoor spaces that are not only functional and maintainable, but environmentally sound, cost effective and aesthetically pleasing. The design process is the first consideration, followed by implementation and maintenance, each with sustainability as a major consideration. The course will cover such topics as greenroofs, xeriscaping, rain gardens, pervious paving, LEED, erosion and sedimentation control and others. (6-0-0-6)

**ELC 104, Soldering Technology** (Credit: 2) (Prerequisite: Provisional admission) Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include: safety practices, total quality management concepts, soldering, desoldering, anti-static grounding, and surface mount techniques. (1-2-0-2)

**ELC 108, Direct Current Circuits II** (Credit: 4) (Prerequisite: IFC 101) Continues direct current (DC) concepts and applications. Topics include: complex series/parallel circuits, and DC theorems. (3-2-0-4)

**ELC 110, Alternating Current II** (Credit: 4) (Prerequisite: IFC 102 or EET 101) Continues development of AC concepts with emphasis on constructing, verifying, and troubleshooting reactive circuits using RLC theory and oscilloscopes. Topics include: reactive components, simple RLC circuits, AC circuit resonance, passive filters, and non-sinusoidal wave forms. (3-2-0-4)

**ELC 115, Solid State Devices II** (Credit: 4) (Prerequisite: IFC 103) Continues the exploration of the physical characteristics and applications of solid-state devices. Topics include: PN diodes, power supplies, voltage regulation, special applications, bipolar junction theory and bipolar junction application. (3-2-0-4)

**ELC 117, Linear Integrated Circuits** (Credit: 4) (Prerequisite: IFC 103 or EET 105) Provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include: operational amplifiers, timers, and three-terminal voltage regulators. (3-2-0-4)

**ELC 118, Digital Electronics I** (Credit: 4) (Prerequisite: IFC 101 or EET 101) Introduces the basic building blocks of digital circuits. Topics include: binary arithmetic, logic gates and truth tables, Boolean algebra and minimization techniques, logic families, and digital test equipment. (3-2-0-4)

**ELC 119, Digital Electronics II** (Credit: 4) (Prerequisite: ELC 118 or EET 201) Uses the concepts developed in Digital Electronics I as a foundation for the study of more advanced devices and circuits. Topics



include: flip-flops, counters, multiplexers and demultiplexers, encoding and decoding, display drivers, and analog to digital and digital to analog conversions.

(1-0-9-4)

**ELC 120, Microprocessors Fundamentals** (Credit: 4) (Prerequisite: ELC 119 or EET 203) This course is designed to provide students with a basic understanding of microprocessor and microcontroller operation, programming, interfacing, interrupts, and troubleshooting. The choice of microprocessor and microcontroller used in the lab experiences and illustration of basic operation is not important. The main objective of the course is to give the student a basic understanding of microprocessor operation and applications. (3-2-0-4)

**ELC 217, Computer Hardware** (Credit: 7) (Prerequisite: ELC 120) Provides an introduction to the fundamentals of installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. Topics include installation, configuration, upgrading, diagnosing, troubleshooting, preventive maintenance, basic hardware, printers, and basic networking. (4-6-0-7)

**ELC 218, Operating Systems Technologies** (Credit: 7) (Prerequisite: ELC 217) Provides an introduction to the fundamentals of Command Line Prompt, Windows 9x, Windows 2000, and future operating systems. Topics include: Operating system fundamentals; installing, configuration, and upgrading; diagnosing and troubleshooting; and networks. (4-6-0-7)

**ELC 260, Telecommunication and Data Cabling** (Credit: 4) (Prerequisite: ELC 119 for degree/diploma, advisor approval for TCC's) Introduces the basic of cable installation from the initial site survey to splicing cable and making connections. Through laboratory activities, students perform the basic tasks of a cable installer. Topics include: basic standards and practices, cable rating and performance, cable installation and management, testing and troubleshooting, industry standards, pulling cable, and understanding blueprints. (3-2-0-4)

**ELC 265, Home Automation Systems** (Credit: 7) (Prerequisite: ELC 261 or Advisor approval) Provides the student with a basic knowledge of all the major home automation technologies and develops the necessary skills to install and configure these technologies so that they function as a unified system. (4-6-0-7)

**ELC 266, Security System Installation and Testing** (Credit: 6) This course is designed to give students a working knowledge of basic security system applications and theory. Students will be able to identify system components and their uses and apply that knowledge to system design. The course utilizes hands-on training in system installation, programming, testing and troubleshooting to assess the preparedness of the student in the security system installation and service industry. (4-0-6-6)

**ELC 267, Fire Alarm Installation** (Credit: 6) This course is designed to give students a working knowledge of basic fire alarm system applications and theory. Students will be able to identify classes of alarms and the system components. The course utilizes hands-on training in component identification and installation including, but not limited to fire panels, pull stations, smoke detectors, heat detectors, signaling horns and strobes. Students will also gain knowledge of system programming, testing, troubleshooting, and repair through classroom and hands-on exercises. (4-0-6-6)

**ELC 268, Access Control and CCTV Installation** (Credit: 3) This course is designed to give students a working knowledge of access control and CCTV systems applications and theory. Students will be able

to identify the system components of the respective systems. The access control segment of the course utilizes hands-on training in component identification and installation including, but is not limited to processors, key pads, card swipes, biometric devices, and security devices related to the control of the pathways. The CCTV segment of the course utilizes hands-on training in component identification and installation including, but is not limited to cabling, power supplies, video cameras, VCRs, storage devices, and monitors.

(2-0-3-3)

**ELC 269, Prep for Low Voltage Licensure** (Credit: 5) (Prerequisite: TEL 202 and TEL 260) This course is designed to give students a working knowledge of responsibilities of the low voltage contractor in the State of Georgia. The materials are specifically targeted at obtaining a low voltage license and are delivered in a lecture environment. Students will utilize the reference materials allowed at the time of testing and are expected to locate the specific information in a timely manner. Some knowledge of telecommunications and/or other low voltage systems standards and installation practices is required. (5-0-0-5)

**ELC 270, HTI+ Certification Preparation** (Credit: 5) (Prerequisite: ELC 265) Prepares the student for taking the CompTIA HTI+ examination by reviewing the Residential Systems and Systems Infrastructure and Integration Objectives. Topics include: Residential Systems and Systems Infrastructure and Integration. (5-0-0-5)

**ELC 286, CompTIA A+ Certification** (Credit: 5) (Prerequisites: ELC 217 and ELC 218 or CIS 122 and CIS 1140) Prepares the student for taking the CompTIA A+ examination by reviewing the A+ CORE and A+ Operating Systems Objectives. Topics include: A+ Core Hardware and A+ Operating System Technologies. (5-0-0-5)

**ELT 106, Electrical Prints, Schematics, and Symbols** (Credit: 4) (Prerequisites: IFC 100 and IFC 101) Introduces electrical symbols and their use in construction blueprints, electrical schematics, and diagrams. Topics include: electrical symbols, component identification, print reading, and scales. (3-2-0-4)

**ELT 107, Commercial Wiring I** (Credit: 5) (Prerequisites: ELT 106, ELT 121, and IFC 100) Introduces commercial wiring practices and procedures. Topics include: National Electrical Code, commercial load calculations, and safety. (4-0-3-5)

**ELT 108, Commercial Wiring II** (Credit: 5) (Corequisite: ELT 107) Presents the study of three-phase power systems, fundamentals of AC motor controls, and the basic transformer connections. Topics include: three-phase power systems, fundamentals of AC motor control, and transformer connections (single-phase and three-phase step down). (4-0-3-5)

**ELT 109, Commercial Wiring III** (Credit: 5) (Corequisites: ELT 107 and ELT 108) Presents the theory and practical application of conduit installation, system design, and related safety requirements. Topics include: conduit installation, system design concepts, and safety procedures. (4-0-3-5)

**ELT 111, Single-phase and Three-phase Motors** (Credit: 5) (Prerequisite: ELT 119, IFC 100, and IFC 101) Introduces the fundamental theories and applications of single-phase and three-phase motors. Topics include: motor theory/operating principles, motor terminology, motor identification, NEMA standards, motor efficiencies, preventive maintenance, troubleshooting/failure analysis, and NEC requirements.

(4-0-3-5)

**ELT 112, Variable Speed/Low Voltage Controls** (Credit: 3) (Corequisite: ELT 111) Introduces types of electric motor control, reduced voltage starting, and applications. Emphasis will be placed on motor types, controller types, and applications. Includes information on wye and delta motor connections; part wind, autotransformer; adjustable frequency drives and other applications; and oscilloscopes and their operation. Topics include: types of reduced voltage starting, reduced voltage motor connections, and adjustable frequency drive. (2-0-3-3)

**ELT 116, Transformers** (Credit: 4) (Prerequisite: ELT 119) Provides instruction in the theory and operation of specific types of transformers. Emphasis will be placed on National Electrical Code requirements related to the use of transformers. Topics include: transformer theory, types of transformers, National Electrical Code requirements, and safety precautions. (3-0-3-4)

**ELT 117, National Electrical Code Industrial Applications** (Credit: 4) (Corequisite: ELT 109) Provides instruction in industrial applications of the National Electrical Code. Topics include: rigid conduit installation, systems design concepts, equipment installation (600 volts or less), and safety precautions. (2-2-3-4)

**ELT 118, Electrical Controls** (Credit: 4) (Corequisites: ELT 108, 111, and 112) Introduces line and low voltage switching circuits, manual and automatic controls and devices, and circuits. Emphasis will be placed on switching circuits, manual and automatic controls and devices, line and low voltage switching circuits, operation, and application and ladder diagrams. Topics include: ladder and wire diagrams, switching circuits, manual controls and devices, automatic controls and devices, and application and operation of controllers and controls. (3-2-3-5)

**ELT 119, Electricity Principles II** (Credit: 4) (Corequisites: MAT 101 and IFC 101) Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers. (3-2-0-4)

**ELT 120, Residential Wiring I** (Credit: 5) (Prerequisite: IFC 100; Corequisites: ELT 106, ELT 119, ELT 121 and IFC 101) Introduces residential wiring practices and procedures. Topics include: residential circuits, print reading, National Electrical Code, wiring materials, determining the required number and location of lighting/receptacles and small appliance circuits, wiring methods (size and type conductors, box fill calculations and voltage drop), switch control of luminaries and receptacle installation including bonding, GFCI and AFCI circuits, special purposes outlets-ranges, cooktops, ovens, dryers, water heaters, sump pumps, etc., and sizing OCPD's (circuit breakers and fuses). (3-2-3-5)

**ELT 121, Residential Wiring II** (Credit: 6) (Corequisite: ELT 120) Provides additional instruction on wiring practices in accordance with National Electrical Code. Topics include: residential single family service calculations, residential two-family service calculations, load balancing, sub-panels and feeders, residential single-family service installation, residential two-family service installation, concepts of electrical wiring applications such as (cable TV and CATV installation, swimming pool installation, and remote control lighting and intercom installation). (5-0-3-6)

**ELT 122, Programmable Logic Control I, II** (Credit: 6) (Prerequisites: ELT 111, 112, and 118) Introduces operational theory, systems terminology, plc installations, and programming procedures for programmable logic controls. Emphasis is placed on plc programming, connections, installations, and

start-up procedures. Topics include: plc hardware and software, plc functions and terminology, introductory numbering systems, plc installation and set up, plc programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and plc safety procedures. (4-0-6-6)

**EMP 1000 (EMP 100), Interpersonal Relations and Professional Development** (Credit: 3) (Prerequisite: Provisional admission) Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include: human relations skills; job acquisition skills and communication; job retention skills; job advancement skills; and professional image skills. (3-0-0-3)

**EMS 126, Introduction to the Paramedic Profession** (Credit: 3) (Prerequisite: Program admission; Corequisite: AHS 101) Introduces the student to the paramedic profession. Discussion centers on functions that extend beyond the EMT scope of practice. Topics include: the EMS system/roles and responsibilities, well-being of the paramedic, illness and injury prevention, medical/legal considerations, ethics, ambulance operations, medical incident command, rescue awareness/operations, hazardous materials incidents and crime scene awareness. This course provides instruction on topics in Division 1, Sections 1-5, Division 7, Section 1 and Division 8 sections 1-5 of the USDOT/NHTSA Paramedic National Standard Curriculum. (3-1-0-3)

**EMS 127, Patient Assessment** (Credit: 4) (Prerequisite: Program admission; Corequisite: AHS 101) Introduces the fundamental principles and skills involved in assessing the pre-hospital patient. Emphasis is on the systematic approach to patient assessment, with adaptations for the medical versus the trauma patient. Topics include: therapeutic communications, history taking, techniques of physical exam, patient assessment, clinical decision-making, EMS communications, and documentation. This course provides instruction on topics in Division 1, Section 9 and Division 3, Sections 1-9 of the USDOT/NHTSA Paramedic National Standard Curriculum. (3-2-0-4)

**EMS 128, Applied Physiology and Pathophysiology** (Credit: 3) (Prerequisite: Program admission; Corequisite: AHS 101) This course introduces the concepts of pathophysiology as it correlates to disease processes. This course will enable caregivers to enhance their overall assessment and management skills. Disease-specific pathophysiology is covered in each related section of the curriculum. This course covers a review of cellular composition and function, including cellular environment as it relates to fluid and acid-base balances. Content on genetics and familial diseases are discussed. Hypoperfusion, including various forms of shock, multiple organ dysfunction syndrome and cellular metabolism impairment are integral components of this course. The next portion of this section provides information on the body's self-defense mechanisms, the inflammatory response, and variances in immunity. The last topic covered is stress and disease, which includes stress responses and the interrelationships among stress, coping, and disease. (3-0-0-3)

**EMS 129, Pharmacology** (Credit: 4) (Prerequisite: Program admission; Corequisite: MAT 101 and AHS 101) This unit is designed to help the paramedic implement a patient management plan based on principles and applications of pharmacology. Discussion of pharmacology includes: identification of drugs, drug calculations, drug administration techniques and procedures and drug safety and standards. (3-2-0-4)

**EMS 130, Respiratory Emergencies** (Credit: 5) (Prerequisite: AHS 101; Corequisites: EMS 126, EMS 127, EMS 128, EMS 129) This unit is designed to help the Paramedic assess and treat a wide variety of respiratory related illnesses in the pediatric and adult patient. Topics include a review of anatomy and physiology, pathophysiology of foreign body airway obstruction, recognition of respiratory compromise, use of airway adjunctive equipment and procedures, current therapeutic modalities for bronchial asthma, chronic bronchitis, emphysema, spontaneous pneumothorax, and hyperventilation syndromes. This section also provides expanded information for adult respiratory distress syndrome, pulmonary thromboembolism, neoplasms of the lung, pneumonia, emphysema, pulmonary edema, and respiratory infections. This course provides instruction on topics in Division 2 (Airway), Section 1 (Airway Management and Ventilation) and Division 5 (Medical), Section 1 (Respiratory) of the USDOT/NHTSA Paramedic National Standard Curriculum. (4-2-0-5)

**EMS 131, Trauma** (Credit: 5) (Prerequisite: AHS 101; Corequisites: EMS 126, EMS 127, EMS 128, EMS 129) This Unit is designed to introduce the student to assessment and management of the trauma patient, to include: systematic approach to the assessment and management of trauma, demonstration of the assessment and management of certain types of trauma patients and bodily injuries. Student should complete the requirements for the Basic Trauma Life Support Course or the Pre-Hospital Trauma Life Support Course. (4-2-0-5)

**EMS 132, Cardiology I** (Credit: 5) (Prerequisites: EMS, 126, EMS127, EMS 128, EMS 129, and AHS 101) Emphasizes the study of the cardiovascular system. Cardiology I will introduce and explore cardiovascular epidemiology, anatomy and physiology, pathophysiology, and electrophysiology. This course will also provide instruction on initial cardiovascular assessment, focused history, detailed physical examination, and electrocardiographic monitoring. Management of the cardiovascular patient will be taught in Cardiology II. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the USDOT/NHTSA Paramedic National Standard Curriculum. (4-2-0-5)

**EMS 133, Cardiology II** (Credit: 4) (Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, and AHS 101; Corequisite: EMS 132) This course expounds on the objectives in Cardiology I emphasizing advanced patient assessment and management of the cardiac patient. Topics will include advanced cardiovascular assessment, pharmacological intervention, electrical intervention, and emergency resuscitative treatment utilizing the American Heart Association's Advanced Cardiac Life Support (ACLS) Providers course. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the USDOT/NHTSA Paramedic National Standard Curriculum. (3-2-0-4)

**EMS 134, Medical Emergencies** (Credit: 5) (Prerequisites: AHS 101, EMS 126, EMS 127, EMS 128, and EMS 129) Provides an in-depth study of the nervous, endocrine, gastrointestinal, renal, hematopoietic, and immune systems. Topics include epidemiology, pathophysiology, assessment, and management of specific injuries/illnesses. Emphasis is placed on allergies/anaphylaxis, toxicology, environmental emergencies, and infectious and communicable diseases. General/specific pathophysiology assessment and management are discussed in detail for environmental emergencies. Infectious and communicable disease topics include public health principles, public health agencies, infection, pathogenicity, infectious agents, and specific infectious disease processes and their management. This course provides instruction on topics in Division 5 (Medical), Sections 3, 4, 5, 6, 7, 8, 9, 10, and 11 of the USDOT/NHTSA Paramedic National Standard Curriculum. (5-1-0-5)

**EMS 135, Maternal/Pediatric** (Credit: 5) (Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, AHS 101) Emphasizes the study of gynecological, obstetrical, pediatric and neonatal emergencies. Maternal/Child combines the unique relationships and situations encountered with mother and child. Provides a detailed understanding of anatomy/physiology, pathophysiology, assessment, and treatment priorities for the OB/GYN patient. Pediatric and neonatal growth and development, anatomy and physiology, pathophysiology, assessment and treatment specifics are covered in detail. Successful completion of a PLS/PALS course is required. This course provides instruction on topics in Division's 5 (Medical), Sections 13 (Obstetrics) & 14 (Gynecology) and 6 (Special Considerations), Sections 1 (Neonatology) and 2 (Pediatrics) of the USDOT/NHTSA Paramedic National Standard Curriculum. (4-2-0-5)

**EMS 136, Special Patients** (Credit: 2) (Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, AHS 101) Provides an overview of the assessment and management of behavioral emergencies as they pertain to prehospital care. Topics include: communication skills and crisis intervention, assessment and management of the adult and adolescent patient with behavioral emergencies, management of the violent patient, management of the suicidal patient, medical/legal considerations, and stress management. Life span, geriatrics, abuse, special challenges, and chronic care patients are included. (2-1-0-2)

**EMS 200, Clinical Application of Advanced Emergency Care** (Credit: 11) (Prerequisite: Program admission) This course provides a range of clinical experiences for the student paramedic to include clinical application of advanced emergency care. (0-0-33-11)

**EMS 201, Summative Evaluation** (Credit: 5) (Prerequisites: EMS126, EMS127, EMS128, EMS129, EMS 130, EMS131, EMS132, EMS133, EMS134, EMS 135, and EMS136; Corequisite: EMS 200) Provides supervised clinical experience in the hospital and prehospital advanced life support settings to include: EMS leadership, summative case evaluations, EKG interpretation and pharmacology. This course also includes a comprehensive paramedic program examination and a board examination review. (4-0-4-5)

**EMS 1101, Introduction to the EMT Profession** (Credit: 4) (Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 Standard, Module 1 and Module 7. It also covers Sections 1,2,3 and 4 of the NHTSA, National Standard Curriculum, EMT-Intermediate-1985. Topics include: basic cardiopulmonary resuscitation/AED, introduction to emergency medical care, roles and responsibilities of the EMT-Intermediate, EMS Systems for EMT-Intermediates, well being of the EMT-Basic, medical/legal and ethical issues, medical-legal aspects for the EMT-Intermediate, blood and airborne pathogens and infectious diseases, the human body, medical terminology, base line vital signs and SAMPLE history, lifting and moving patients, ambulance operations, gaining access, and overviews of HazMat/MCI. (3-2-0-4)

**EMS 1103, Patient Assessment for the EMT** (Credit: 2) (Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 3. In addition to the NSC-B 1994 standards, this course also includes the NSC EMT-Intermediate 1985 Standard, Section 5 and part of Section 6. Topics include: Scene-Size Up, Initial Assessment, Focused History & Physical Exam for both Medical and Trauma Patients, Detailed Physical Exam, On-Going Assessment, Communications/Documentation, and EMS communications for the EMT-I. (1-2-0-2)

**EMS 1105, Airway Management for the EMT** (Credit: 2) (Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National

Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 2. In addition to the NSC-B 1994 standards, this course also includes the NSC EMT-Intermediate 1985 Standard, Section 7. The 2002 Supplemental Airway Modules for the NSC-B 1994 curriculum will also be used. Topics include: Airway, Advanced Airway and Basic/Advanced Airway Management. (1-2-0-2)

**EMS 1107, Medical and Behavioral Emergencies for the EMT** (Credit: 3) (Prerequisite: Program admission) The course covers Lessons 1 through 8, and parts of Lessons 10 and 11 of Module 4 of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard. Topics include general pharmacology, respiratory emergencies, cardiovascular emergencies, diabetic/altered mental status emergencies, allergic reactions, poisoning/overdose emergencies, environmental emergencies, behavioral emergencies, and non-traumatic abdominal emergencies. (2-2-0-3)

**EMS 1109, Assessment and Management Across the Lifespan for the EMT** (Credit: 2) (Prerequisite: Program admission) The course covers Lesson 9, and parts of Lessons 10 and 11 of Module 4 of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard. All of Module 6 of the NSC-B 1994 curriculum is also included. The Georgia Office of EMS specific module for Geriatrics as well as the TCSG specific module for Special Needs Patients is included. Topics include obstetrical/gynecological emergencies, infants & children, geriatrics and patients with special needs. (1-2-0-2)

**EMS 1111, Trauma Emergencies and WMD Response** (Credit: 4) (Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 5. In addition to the NSC-B 1994 standards, this course also includes portions of Section 6 of the NSC EMT-Intermediate 1985 Standard. The Georgia Office of EMS specific module for Emergency Response to Weapons of Mass Destruction is also included. Topics include: bleeding and shock, soft tissue injuries, musculoskeletal care, injuries to the head/spine, patient access and extrication, and emergency medical response to WMD. (3-2-0-4)

**EMS 1113, Clinical Applications for the EMT Basic** (Credit: 1) (Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This course will include all of the EMT-Basic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Basic Curriculum standard. This course will include a minimum of 30 clinical hours. (0-0-3-1)

**EMS 1115, Practical Applications for the EMT-Basic** (Credit: 2) (Prerequisite: Program admission) This course will serve as the integration point for the entire National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, as well as Sections 1 through 7 of the NSC EMT-Intermediate 1985 Standard, and the Georgia Office of EMS specific modules on CPR, Geriatrics and WMD. This course will focus on critical thinking skills and will enhance the assessment based management skills of EMT students. Topics include: Assessment Based Management for the EMT-Basic. (1-2-0-2)

**EMS 1201, Pharmacology and Shock/Trauma Management for the EMT-Intermediate** (Credit: 3) (Prerequisite: Program admission) The course covers Section 8 of the National Highway Safety

Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Intermediate, 1985 standard. Topics Include: general pharmacology review, IV and IO therapy and shock/trauma assessment and management. (2-2-0-3)

**EMS 1203, Clinical Applications for the EMT-Intermediate I** (Credit: 1) (Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This course will include all of the EMT-Intermediate Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Intermediate Curriculum standard. This course will include a minimum of 30 clinical hours, and along with Clinical Applications for the EMT-Intermediate – II, will include a minimum skill set. (0-0-3-1)

**EMS 1205, Clinical Applications for the EMT-Intermediate II** (Credit: 1) (Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This course will include all of the EMT-Intermediate Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Intermediate Curriculum standard. This course will include a minimum of 30 clinical hours, and along with Clinical Applications for the EMT-Intermediate – I, will include a minimum skill set. (0-0-3-1)

**EMS 1207, Practical Applications for the EMT-Intermediate** (Credit: 2) (Prerequisite: Program admission) This is the final course for those pursuing EMT-Intermediate Certification. This course expands upon the critical thinking skills and assessment based management techniques covered in the 'Practical Applications for the EMT-Basic' course. This course integrates all components of the US DOT EMT-Basic 1994 Curriculum as well as the US DOT EMT-Intermediate 1985 Curriculum, and all Georgia specific modules for the EMT-Basic and EMT-Intermediate curricula. Preparation for the national certification exam for EMT-Intermediate/85s will be paramount throughout the course, and students will be required to complete this course prior to being eligible to sit for the National Registry Intermediate-1985 Exam. Topics will include skills competency verification and assessment based management techniques for the EMT-Intermediate. (1-2-0-2)

**EMY 124, Principles of Emergency Management** (Credit: 5) Principles of Emergency Management is intended to provide information that will enable persons just entering the profession or expanding their roles to have the ability to work with the main emergency management issues. The primary purpose of this course is to provide an overview of the characteristics, functions, and resources of an integrated system and how various emergency management services work together in a system of resources and capabilities. Emphasis is placed on how this system is applied to all hazards for all government levels, across the four phases and all functions of emergency management. (5-0-0-5)

**EMY 125, Exercise Design and Evaluation** (Credit: 5) Exercise Design and Evaluation provides information for local government officials, emergency managers, volunteers and other emergency service personnel who are responsible to prepare for, respond to, or recover from disasters. It is intended to provide participants with the knowledge and skills to develop and conduct disaster exercises that will test a community's emergency operations plan and operational response capability. To this end, the course provides hands-on training in the design, conduct and evaluation of exercises so that participants will be able to develop and implement a comprehensive exercise program in their respective jurisdictions. (5-0-0-5)



**EMY 126, Hazardous Materials Contingency Planning** (Credit: 5) This course provides competencies that include understanding the definition and location of various hazardous materials, their properties, and their safe evacuation distance. Emphasis is placed upon safety factors such as flammability and toxicity. Emergency management personnel are expected to remain a safe distance from hazardous materials, but they play a role in the hazardous materials planning process. Therefore, it is important for them to identify hazardous materials by their identification numbers and/or placards and interpret that information correctly. (5-0-0-5)

**EMY 127, Emergency Planning** (Credit: 5) Emergency Planning provides information that will enable persons just entering the profession or expanding their roles to have the ability to assess their community's hazards, determine community resources, and write an all-hazards plan to assign responsibility to various agencies who will respond during an emergency or disaster. The primary purpose of this course is to provide background information encouraging communities to plan, reasons for planning, who might be involved in the planning process, and a framework within which to plan. There will be ample opportunities for the student to practice each step of the process, gradually becoming familiar with the planning process. (5-0-0-5)

**EMY 128, Developing Community Resources** (Credit: 5) This course will develop participant's skills in recognizing volunteer resources in the community; to enhance abilities to manage the involvement of volunteers in all phases of emergency management, including diversity, wide range of volunteer expertise and collaboration with major voluntary organizations active in disasters. In addition, focus on knowledge and skills needed to effectively perform resource management functions within the overall framework of an emergency operations center will be discussed. The student will be exposed to collaboration techniques to include activities that would allow the students the opportunity for actual collaboration and to build and maintain all local collaborative process designed to enhance the ability to respond to emergencies and utilize resources acquired through collaboration techniques. (5-0-0-5)

**EMY 129, Mass Fatalities Incident Response** (Credit: 5) This course addresses the essential elements of planning for, responding to, and recovering from a mass fatality incident. This course will identify the roles and responsibilities of local, state, and federal officials, public service, private sector, and voluntary organizations. (5-0-0-5)

**EMY 130, Infection Control** (Credit: 5) Infection Control provides competencies that include understanding of infection control in regards to work-related exposure; definition of communicable disease; definition of infectious disease; understanding how diseases are transmitted; be able to list common signs and symptoms of related diseases; and list exposure risks by activities that increase exposure potential. (5-0-0-5)

**EMY 137, Facility Security** (Credit: 5) (Prerequisite: Program admission) One of the best defenses against intrusion is to present a "hard" target. The student will learn how to assess a facility's vulnerability and make helpful recommendations to lessen opportunities for entry by those who would intend harm to the habitants. The student will learn how to communicate "safe practices" in the facility and train habitants to share in the responsibilities of security. The student will be able to list "no cost," "low cost," and "cost effective" measures for facility security. This course specifically addresses facility security planning for buildings, hospitals, educational institutions, transportation systems, utilities, entertainment facilities, and special events. (5-0-0-5)

**EMY 222, Emergency Management Internship** (Credit: 5) Emergency Management Internship will provide students with practical experience in an actual work environment. Emphasis is placed on all phases of the industry in the student's area of specialization (Local or State Emergency Management Office, Public Health, or Business Continuity). Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management application on the job. Topics include: adaptability to the job setting, use of proper interpersonal skills, application of emergency preparedness skills and techniques, and professional development. (0-0-15-5)

**ENG 096, English II** (Credit: 5 I.C.) (Prerequisite: ENG 095 or English entrance score in accordance with TCSG admission score levels) Emphasizes standard English usage. Topics include: capitalization, subjects and predicates, punctuation, sentence structure, correct verb tenses, standard spelling, and basic paragraph development. (5-0-0-5I.C.)

**ENG 097, English III** (Credit: 5 I.C.) (Prerequisite: ENG 096 or English entrance score in accordance with TCSG admission score levels) Emphasizes the rules of grammar, punctuation, capitalization, spelling, and writing in order to ensure a smooth transition into communicating orally and in writing. Topics include basic grammar, mechanics, spelling, and sentence writing and paragraphing skills needed for writing memos, letters, reports, and short essays. (5-0-0-5I.C.)

**ENG 098, English IV** (Credit: 5 I.C.) (Prerequisite: ENG 097 or English entrance score in accordance with TCSG admission score levels) Emphasizes the ability to communicate using written and oral methods. Topics include writing and the process of writing, revising, and oral communications. Students must pass the COMPASS exit exam with a satisfactory score before enrolling in ENG 1101. (5-0-0-5I.C.)

**ENG 1010 (ENG 101 & 111), Fundamentals of English I** (Credit: 5) (Prerequisite: ENG 097 or English entrance English score in accordance with approved TCSG admission score levels; and RDG 097 or entrance reading score in accordance with approved TCSG admission score levels) Emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing; writing practice; grammar skills; editing and proofreading skills; research skills; and oral communication skills. Homework assignments reinforce classroom learning. (5-0-0-5)

**ENG 1012 (ENG 112), Fundamentals of English II** (Credit: 5) (Prerequisite: ENG 1010) Provides knowledge and application of written and oral communication found in the workplace. Topics include writing and speaking fundamentals. (5-0-0-5)

**ENG 1101 (ENG 191), Composition and Rhetoric** (Credit: 5) (Prerequisite: Program admission –level language competency) Explores the analysis of literature and articles about issues in the humanities and society. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library resources lays the foundation for research. Topics include writing analysis and practice; revision; research; research writing; and formatting and documentation. Students write a research paper using library resources and using MLA formatting and documentation. (5-0-0-5)

**ENG 1102 (ENG 193), Literature and Composition** (Credit: 5) (Prerequisite: ENG 1101 with a grade of C or better) Emphasizes the student's ability to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research writing; MLA formatting and documentation; and writing about literature. (5-0-0-5)

**ENG 1105 (ENG 195), Technical Communications** (Credit: 5) (Prerequisite: ENG 1101 with a grade of C or better) Emphasizes practical knowledge of technical communication techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research; device and process description; formal technical report writing; workplace correspondence; and technical report presentation. (5-0-0-5)

**ENG 2130, American Literature** (Credit: 5) (Prerequisite: ENG 1101 and ENG 1102, both with a grade of C or better) Provides a survey of important works in American literature. Includes a variety of literary genres: short stories, poetry, drama, nonfiction, and the novel. Emphasizes American literature as a reflection of culture and ideas. Topics include: literature and culture; essential themes and ideas; literature and history; research skills; and oral presentation skills. (5-0-0-5)

**ENT 100, Television Production I** (Credit: 5) (Prerequisite: Program Admission) The student will learn the function and operation of the primary tools of TV production (video, audio, and lighting) to develop the student's awareness and understanding of studio procedures. The course will introduce the concepts, terminology, and equipment of a multi-camera, live-on-tape production.

**ENT 101, Television Production II** (Credit: 5) (Prerequisite: ENT 100 with a C or better) This is a studio-based television production course that builds on basic skills the student developed in ENT 100. The student will enhance his/her understanding of the roles of staff and crew persons in video production. Simple pre-production of audio, graphics and video elements will be required for laboratory exercises. Four to six hours of laboratory will be required per week.

**ENT 102, Intermediate Multi-Camera Production** (Credit: 5) (Prerequisite: ENT 101 with a C or better) This course will provide the student with multi-camera studio production skills. Emphasis will be on producing and directing live-to-tape productions. Each student will be expected to assume the responsibility of the leadership and support positions in the television production process. Four to six hours of laboratory will be required per week.

**ENT 103, Digital Post-Production** (Credit: 5) (Prerequisite: ENT 101 with a C or better and SCT 100) The student will learn video editing basics. The concepts and equipment used in non-linear post-production, media compression, digitizing, creating sequences, and importing/exporting media files will also be introduced. Four to six hours of laboratory will be required per week.

**ENT 104 (DMP 102), Introduction to Graphics for Television** (Credit: 5) (Prerequisites: ENT 101 and ENT 101, each with a C or better) The student will learn to use two-dimensional, computer-generated graphics for television. Emphasis will be on the aesthetics and techniques for character and graphics generation. The student will develop skills in compositing graphics with live action and videotape sequences. Topics include using Adobe Photoshop as a complementary application to nonlinear video systems, creating alpha channel effects, and importing and exporting graphics in and out of systems for video, CD-ROM, and web distribution.

**ENT 203, Intermediate Non-Linear Editing** (Credit: 5) (Prerequisites: ENT 101 and 103, each with a C or better) The student will learn how to use non-linear systems' more sophisticated features. The focus will be on media management, effects, keyboard shortcuts and other advanced operations. Students will complete projects utilizing these new techniques. Four to six hours of laboratory will be required per week.

**ENT 204 (DMP 202), Intermediate Graphics for Television** (Credit: 5) (Prerequisites: ENT 101 and 104, each with a C or better) The student will further develop an understanding of aesthetics and techniques working with filters, compositing layers, animating mattes, creating titles and effects, and importing and exporting to and from the application. The student will also learn how multi-layer graphics from Adobe Photoshop can be imported into Adobe After Effects, and animated on a layer-by-layer basis. Four to six hours of laboratory will be required per week.

**ENT 205, Field Video Production** (Credit: 5) (Prerequisites: ENT 101, 103, and 104, each with a C or better) The student will learn the concepts and practices of field and remote video production. Emphasis will be on electronic news gathering (ENG) and electronic field production (EFP). The student will produce projects, organize staff, and edit the work into a final broadcast ready-product. Four to six hours of laboratory will be required per week.

**ENT 206 (DMP 206), Digital Animation** (Credit: 5) (Prerequisites: ENT 104 and 204, each with a C or better) This course focuses on two- and three-dimensional computer generated animation. The student will be introduced to the latest software applications. Emphasis will be placed on techniques and aesthetics for creating and integrating animation into broadcast television. Four to six hours of laboratory will be required per week.

**ENT 207, Introduction to Audio** (Credit: 5) (Prerequisites: ENT 101, 103, and 203, each with a C or better) The student will learn basic audio concepts and equipment, and how to get the best sound on location using microphone types and placement, mixers, recording technologies, and signal processing. The student will learn techniques to transfer audio to videotape and basic audio editing skills.

**ENT 208, Intermediate Lighting and Grip Techniques** (Credit: 5) (Prerequisites: ENT 101 and 205, each with a C or better) The student will learn the concepts, terminology and equipment of lighting for video. He/she will also learn about color balance, electrical specifications and control boards. Grip equipment will be used to teach advanced lighting applications. Four to six hours of laboratory will be required per week.

**ENT 209 (DMP 207), Intermediate Digital Animation** (Credit: 5) (Prerequisite: ENT 206 with a C or better) The student will further develop an understanding of aesthetics and techniques for building, lighting, assigning surface attributes, and rendering of three-dimensional, computer-generated animations. The students will study the creation and modification of customized three-dimensional models as well as the techniques involved in compositing video, sound, and computer-generated images. Four to six hours of laboratory will be required per week.

**ENT 210, Writing for Television and Radio** (Credit: 5) (Prerequisites: ENT 102 and 205, each with a C or better) The student will learn the writing formats for news, dramatic, commercial, and industrial television and radio productions. Emphasis will be placed on correct writing styles for each application. Each student will create scripts and adapt existing works for the screen.

**ENT 211, Survey of Mass Communications** (Credit: 5) (Prerequisites: ENT 102 and 205, each with a C or better) The student will examine the explosive field of electronic communications, providing a broad perspective from which to view today's media world. The student will learn about television ratings, market research and technical aspects of electronic media, and will gain valuable insight into the industry's history, standards and regulations.

**ENT 212, Advanced Video Projects** (Credit: 5) (Prerequisites: ENT 102, ENT 203, ENT 205, ENT 208 and DMP 202 all with C or better) Students will conceive, write, and pre/pro/post produce a long-form broadcast-ready product. Students will be responsible for checking out appropriate equipment, obtaining talent, props, permits, graphics, and any other elements essential to their project. The instructor must approve the project's subject matter. The Advanced Video Projects course is for advanced students with an ENT GPA of 3.0. Students must have passed editing, field production and lighting competencies and be at the Director Level (Red Lanyard). Space is limited. Students must submit a letter to the instructor the quarter prior to enrollment in the class. The letter must include the reasons for taking the class and how the skills learned will help them find employment in the field. The letter must include the topic of the project and plan for the shooting of the project to include script, storyboards and other relevant elements.

**ENT 213, Advanced Directing for Television** (Credit: 5) (Prerequisites: ENT 102, 204, 205, and 208, each with a C or better) This is an open-ended course allowing students to further their experience in field/studio production, editing, lighting, graphics, animation, writing and/or producing. Students will work in teams to produce broadcast ready projects.

**ENT 214, Aesthetics in Production** (Credit: 5) (Prerequisites: ENT 102, 204, 205, and 208, each with a C or better) The student will develop a greater understanding of major aesthetic image elements - light, space, time/motion and sound, and how they are used in television production. Four to six hours of laboratory will be required per week.

**ENT 215, Entertainment Technology Internship** (Credit: 5) (Prerequisites: Second-year student standing and permission of sequence internship coordinator or instructor.) The second-year student will gain practical experience in a professional setting. A minimum of 15 hours of work per week plus related assignments will be required. This course can be repeated for one-to-three modules, not to exceed a total of 10 credits, with permission of instructor. The student must have a letter of agreement from the internship provider for registration into the class.

**EST 100, Introduction to Esthetics** (Credit: 5) (Prerequisite: Program admission) Introduces the fundamental theory and practices of the Professional Esthetician. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules and regulations, professional image, history of the skin, care and use of cosmetics, bacteriology, sterilization and sanitation, chemistry for estheticians, ingredients and product analysis, and hazardous duty standards act. (4-2-0-5)

**EST 101, Anatomy and Physiology of Skin** (Credit: 5) (Prerequisite: EST 100) Introduction to anatomy and physiology; disorders of the skin and nutrition and health of the skin. Topics include: cells/tissues/organs, skeletal system, muscular system, nervous system, circulatory system, endocrine system, excretory system, respiration system, digestive system, structure of the skin, disorders of the skin, and nutrition and health of the skin. (5-0-0-5)

**EST 102, Skin Care Procedures** (Credit: 6) (Prerequisite: EST 101) Introduces the theory, procedures, and products used in the care and treatment of the skin. Topics include: client consultation and preparation, cleansing the skin, techniques for professional massage, facial treatments and body treatments, aromatherapy, body wraps, and reflexology. (1-6-6-6)

**EST 103, Electricity and Facial Treatment** (Credit: 7) (Prerequisite: EST 102) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: skin analysis

equipment, basic skin care products, basic electricity, men's skin care products, post consultation and home care, mechanical versus chemical exfoliations, microdermabrasion, and advanced product types and features. (2-6-6-7)

**EST 104, Advanced Skin Care** (Credit: 5) (Prerequisite: EST 103) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: intrinsic aging, analysis of sensitive skin, treatment for hyperpigmentation, causes of acne, methods of holistic therapy, joining a medical team, and preoperative and postoperative care. (1-2-9-5)

**EST 105, Color Theory and Makeup** (Credit: 4) (Prerequisite: EST 102; Corequisite: EST 103 and EST 104) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: morphology of hair, hair removal, sanitation, eyebrow shaping, waxing, ingrown hair service, color theory, face proportions and shape, choosing and using makeup products, makeup tools, basic makeup application, camouflage therapy, and medical application. (1-2-6-4)

**EST 106, Esthetics Practicum I** (Credit: 6) (Prerequisite: EST 105) Provides laboratory experience necessary for the development of skill levels to be a competent esthetician. The allocation of time to the various phases of esthetics is prescribed by the state board of cosmetology. This course includes a portion of the hours for licensure. Topics include: body treatments, aromatherapy, reflexology, Course Descriptions facials, and hair removal. (0-0-18-6)

**EST 107, Esthetics Practicum II** (Credit: 6) (Prerequisite: EST 106) Provides experience for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of conduct and positive attitudes. The requirements for this course will be met in a laboratory setting. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal. (0-0-18-6)

**FIN 191, Introduction to Finance** (Credit: 5) (Prerequisite: ACC 101) Provides an introduction to financial markets, institutions, and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds, and the financial principles and concepts behind sound financial management. Topics include: the financial systems of the United States, business finance management, financing of other sectors of the economy, and the time value of money. (5-0-0-5)

**FSC 101, Introduction to Fire Science** (Credit: 5) Includes introduction to: Fire Technology Education and the firefighter selection process, Fire Protection Career Opportunities, Public Fire Protection, Chemistry and Physics of Fire, Public and Private Support Organizations Fire Department Resources, Fire Department Administration, Support Functions, Training, Fire Prevention, Codes and Ordinances, Fire Protection Systems and Equipment, Emergency Incident Management, Emergency Operations. (5-0-0-5)

**FSC 110, Fire Service Supervision and Leadership** (Credit: 5) Course introduces common supervision and leadership theories and practices with emphasis on the unique supervisory requirements created by the nature of fire department shift work and change from emergency to non-emergency situations. Topics include: management styles and types, leading effectively, stress management, time management, group dynamics, communication, motivation, counseling, conflict resolution, and total quality management principles. (5-0-0-5)

**FSC 121, Fire Fighting Strategy and Tactics** (Credit: 5) This course presents the principles of applying fire department resources to mitigate a fire or related emergency. General topics include: principles of fire

fighting, size up, engine company operations, hose line selection and placement, water supply, standpipe and sprinkler operations, ladder company operations, forcible entry, ventilation and search and rescue. Specific fires reviewed will include: private dwellings, multiple dwellings, commercial buildings, high-rise structures, buildings under construction, structural collapse, flammable liquid and gas fires, and water front fires. (5-0-0-5)

**FSC 132, Fire Service Instructor** (Credit: 5) Students will learn to analyze jobs and information, then prepare and present related training. Emphasis is placed on planning, organizing, presenting, and testing, using methodologies appropriate to the subject. Topics include: orientation to emergency services instruction, communication, planning and analysis, objectives, learning, assessment, methods of instruction, instructor materials, media, training related group dynamics, classroom management, and the legal environment. Students will have numerous opportunities to apply what they learn. (4-2-0-5)

**FSC 141, Hazardous Materials** (Credit: 5) Study the basic fundamentals of emergency response to hazardous materials incidents, types of chemicals specifically hazardous chemicals. Emphasis is placed on emergency service in combating, controlling, and coordinating a hazardous materials incident. (4-2-0-5)

**FSC 151, Fire Prevention and Inspection** (Credit: 5) Emphasis is placed on the shared responsibility of all fire service personnel to prevent fires and fires losses. Topics include: survey of fire prevention activities, conducting basic fire prevention inspections, life safety code, review of local and state laws regarding fire inspection, and review of applicable codes and standards. (4-2-0-5)

**FSC 161, Fire Service Safety and Loss Control** (Credit: 5) Course teaches a proactive approach to fire service injury and loss prevention. Topics include: a survey of fire deaths and injuries, physical fitness, training, station activities, emergency scene activities, post incident activities, accident/loss analysis, safety officers, employee assistance programs, protective clothing, and equipment, insurance, and a review of applicable laws and standards including NFPA 1500. (5-0-0-5)

**FSC 201, Fire Service Management** (Credit: 5) The course presents an introduction to Fire Service Management. Management theories, responsibilities and concepts are discussed beginning from a historical perspective and leading to practical modern methods. Topics include: organization management, planning for and evaluating community fire protection, program management, managing innovation, financial management, personnel management, training, emergency management, emergency medical systems, community relations, public fire safety education, alternative delivery systems, equipment and buildings, and special operations, and legal aspects of fire service management. (5-0-0-5)

**FSC 210, Fire Service Hydraulics** (Credit: 5) Course begins with the history and theories of the use of water for fire extinguishments then moves to practical application of the principles of hydraulics in water systems and on the fire ground. Topics include: water at rest and in motion, velocity and discharge, water distribution systems, fire service pumps, friction loss, engine and nozzle pressures, fire streams, stand pipe systems, automatic sprinkler systems, fire fighting foams, and the clip board friction loss system. (5-0-0-5)

**FSC 220, Fire Protection Systems** (Credit: 5) A review of fire detection and protection systems including: automatic sprinkler systems, portable fire extinguishers, restaurant/kitchen systems, special hazard

systems, detection systems and control systems. The applicable laws, codes and standards will be introduced along with regulatory and support agencies. (5-0-0-5)

**FSC 230, Fire Service Building Construction** (Credit: 5) Presents building construction features from the perspective of the fire service with emphasis placed on the use of building construction information to prevent and reduce fire fighter and civilian deaths and injuries. Topics include: principles of construction, wood construction, ordinary construction, garden apartments, principles of fire resistance, steel construction, concrete construction, fire growth, smoke containment, high rise construction, trusses, automatic sprinklers, rack storage, buildings under construction, and pre-fire planning. (5-0-0-5)

**FSC 241, Incident Command** (Credit: 5) This course addresses the area of emergency scene management. It begins with a review of the programs and processes which are the basis for a successful command system, and then moves into the functions of command. Initial and extended response to small and large incidents will be covered. The student will become familiar with "ICS", "Fire Command", and other successful incident management concepts and will make extensive use of fire simulation to practice new skills. (4-2-0-5)

**FSC 270, Fire Investigation** (Credit: 5) This course includes: Investigation Planning and Methodology, Basic Fire Science, Fire Patterns, Origin Determination, Cause Determination, Incendiary Fires, Motives, Introductions to Explosions and Electricity, Legal Considerations, Recording the Scene, Physical Evidence, Sources of Information, Interviews, Fatal Fires, Fire Scene Safety, Vehicle Fire Investigation, Structural Fire Investigations, and Introduction to Managing Major Investigations. (4-2-0-5)

**FSM 101, Fashion Fundamentals** (Credit: 5) (Prerequisite: Provisional admission) Emphasizes the basic fashion industry environment. Topics include: fashion terminology; history of fashion industry, costume, and silhouettes; environmental influences; fashion cycles; fashion forecasting; secondary markets; wholesale markets and distribution; retail stores; and career awareness. (5-0-0-5)

**GRN 100, Understanding the Client** (Credit: 3) (Prerequisites: AHS 101, AHS 104, and AHS 109) Description of the aging client in the aging services network. Examination of sociological, psychological, and biological aspects of aging. (3-0-0-3)

**GRN 103, Geriatric Nutrition** (Credit: 2) (Prerequisites: AHS 101, AHS 104, and AHS 109) A study of the nutritional needs of the individual, including older adults. Topics include: nutrients, standard and modified diets, nutrition throughout the lifespan, and client education. (2-0-0-2)

**GRN 105, Principles of Home Health Care** (Credit: 5) (Prerequisite: Program admission) Development of modern home care focusing on the elderly and the values of keeping families together in times of illness while maintaining a therapeutic environment. (5-0-0-5)

**HIS 1111, World History I** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides a survey of intellectual, cultural, scientific, political, and social contributions of the civilizations of the world, and the evolution of these civilizations during the period from the prehistoric era to early modern times. Topics include the Prehistoric Era, the Ancient Near East, Ancient India, Ancient China, Ancient Greece, Ancient Rome, Ancient Africa, Islam, the Americas, Japan, the Middle Ages, and the Renaissance. (5-0-0-5)



**HIS 1112, World History II** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides a survey of the intellectual, cultural, scientific, political, and social contributions of the civilizations of the world, and the evolution of these civilizations during the period from early modern times to the present. Topics include transitions to the Modern World; Scientific Revolution and the Enlightenment; Political Modernization; Economic Modernization; Imperialism, and the Twentieth Century. (5-0-0-5)

**HIS 2111, U.S. History I** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides a survey of U.S. History to 1877 to include the post-Civil War period. The course focuses of the period from the Age of Discovery through the Civil War to include geographical, intellectual, political, economic and cultural development of the American people. Topics include Colonization and Expansion; the Revolutionary Era; the New Nation; Nationalism, Sectionalism, and Reform; the Era of Expansion; and Crisis, Civil War, and Reconstruction. (5-0-0-5)

**HIS 2112, U.S. History II** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides a survey of the social, cultural, and political history of the United States from 1865 to the beginning of the twenty-first century and will equip the student to better understand the problems and challenges of the contemporary world in relation to events and trends in modern American history. Topics include the Reconstruction Period; the Great West, the New South, and the rise of the debtor; the Gilded Age; the Progressive Movement; the emergence of the U.S. in world affairs; the Roaring Twenties; the Great Depression; World War II; the Cold War and the 1950s; the 1960s and 1970s; and America since 1980. (5-0-0-5)

**HLS 100, Introduction to Homeland Security** (Credit: 5) The course will give students an overview of the different job tasks used primarily in the field of Homeland Security. The course focuses on the structure and development of various aspects of Homeland Security. The topics included are historical overviews of terrorism as it relates to Homeland Security, statutory authority, emergency management planning and procedures, situational hazards and terrorism awareness, intelligence for the safety and security of critical infrastructure, mitigation and preparedness, communications, response and recovery, science and technology and the future of Homeland Security. The course is designed to assist students in the development of programs and policies within their workplace to expand career opportunities in the professions of Homeland Security. (5-0-0-5)

**HLS 104, Incident Command and Communications** (Credit: 3) The course will give students an overview of the field of incident command and communications. The course will identify organizational structure within the realm of local, state and federal agencies in incident command. Topics included in this block of instruction include Planning, roles and responsibilities, operational structure, incident management structure, training, facility security, radio and computer operations and joint information centers. The course is designed to assist students in the development of programs and policies within their workplace to expand career opportunities in the professions of Homeland Security. (3-0-0-3)

**HLS 106, Domestic Terrorism** (Credit: 5) The course will give students an overview of the field of domestic terrorism. The course will identify terrorist cells and groups operating within the United States. The course will address terrorist activities of groups in conjunction with international groups. Topics included in this course include historical background and exposure of domestic terrorist, localized and political groups, women in terrorism, conventional and non-conventional terrorist tactics, and background investigation. The course is designed to assist students in the development of programs

and policies within their workplace to expand career opportunities in the professions of Homeland Security. (5-0-0-5)

**HLS 200, The Patriot Act and Other Legal Issues** (Credit: 5) (Prerequisites: HLS 100 and HLS 102) The course will give students an overview of the ever-changing laws concerning Homeland Security and the Patriot Act. The course focuses on the laws governing Homeland Security, law enforcement investigations and the intelligence community protocols. Topics include constitutional rights and possible future conflicts, covert operations, surreptitious searches, intelligence collection guidelines and interrogation methodology. The course is designed to assist students in the development of programs and policies within their workplace to expand career opportunities in the professions of Homeland Security. (5-0-0-5)

**HLS 202, International Terrorism Investigations** (Credit: 5) Presents the fundamental principles of International Terrorist investigation. Emphasis is placed on legal requirements stated in federal laws, definition of felony crimes stated in the Georgia Code and fundamentals of: investigative procedures, crime scene searches, identification and collection of evidence, note-taking and report writing, surveillance, identification of witnesses and suspects, interviews and interrogation, and preparation and presentation of evidence in court. Topics include: Georgia Criminal Law, common investigative techniques, and procedures used for investigating various crimes. (5-0-0-5)

**HLS 205, Weapons of Mass Destruction** (Credit: 5) This course provides students with a general understanding and recognition of terrorism and knowledge of how to identify weapons of mass destruction. Students will receive an overview of the past, current and future issues surrounding the issue of the use of Weapons of Mass Destruction and a basic understanding of the terrorism threats; chemical, biological, radiological, nuclear, and explosive (CBRNE) hazards, delivery devices, and other methods used by terrorist. (5-0-0-5)

**HLS 208, Homeland Security Intelligence and Information Systems** (Credit: 5) The course will give students an overview of intelligence and its impact on Homeland Security. The course addresses intelligence gathering in other countries as well as counter-intelligence. Topics addressed include intelligence necessity, history of intelligence, agencies, intelligence gathering, analysis of intelligence, counterintelligence, covert investigations, policy and accountability, foreign intelligence, ethics and intelligence reforms. The course is designed to assist students in the development of programs and policies within their workplace to expand career opportunities in the professions of Homeland Security. (5-0-0-5)

**HLS 209, Homeland Security Internship** (Credit: 5) Provides experiences necessary for further professional development and exposure to related agencies in the Homeland Security field. The student will either pursue a study project directed by the instructor within the institution, or an internship in a related agency supervised by the instructor subject to the availability of an approved site. Topics include: observation and/or participation in Homeland Security activities, Homeland Security theory applications, and independent study project. (5-0-0-5)

**HUM 1101 (HUM 191), Introduction to Humanities** (Credit: 5) (Prerequisite: ENG 1101 with a grade of C or better) Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. The humanities provide insight into people and society. Topics include: historical and cultural developments; contributions of the humanities; and research project. (5-0-0-5)

**ICT 201 - Electromechanical Devices** (Credit: 5) (Prerequisite EET 103) This course introduces electromechanical devices which are essential control elements in electrical systems. Topics include: fundamentals of electromechanical devices, control elements in electrical circuits, typical devices such as generators and alternators, D.C. and A.C. motors and controls, and transformers. Quantitative analysis of power losses, power factors, and efficiencies in D.C., single-phase and three-phase dynamos are stressed. Laboratory work parallels class work. (4-0-3-5)

**IDS 101, Industrial Computer Applications** (Credit: 5) (Prerequisites: IFC 101 and SCT 100) Provides a foundation in industrial computers and computer systems with a focus in linking computers to the plant floor process. Topics include: hardware, software, boot sequence, configuration, troubleshooting, and communication platforms. (3-2-3-5)

**IDS 103, Industrial Wiring** (Credit: 6) (Prerequisites: IFC 101 and IFC 102) Teaches the fundamental concepts of industrial wiring with an emphasis on installation procedures. Topics include: grounding, raceways, three-phase systems, transformers (three-phase and single-phase), wire sizing, over-current protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors. (3-0-9-6)

**IDS 105, DC and AC Motors** (Credit: 3) (Prerequisites/Corequisites: IFC 101, IFC 102 and MAT 103 or MAT 190 or MAT 191 or MAT 194 or MAT 198) Introduces the fundamental theories and applications of single-phase and three-phase motors. Topics include: motor theory and operating principles, motor terminology, motor identification, NEMA standards, AC motors, DC motors, scheduled preventive maintenance, and troubleshooting and failure analysis. (2-0-3-3)

**IDS 107, Basic Mechanics** (Credit: 5) (Prerequisite: Provisional admission) Emphasizes basic skills training needed in mechanical maintenance. Provide instruction for learning common terminology of maintenance and much needed practical measuring/mathematical skills. The course also introduces layout/fabrication procedures focusing on good shop practice skills and addresses typical materials and manufacturing processes used in the plant. Introduces power transmission equipment. (3-2-3-5)

**IDS 110, Fundamentals of Motor Controls** (Credit: 3) (Prerequisite/Corequisite: IDS 105) Introduces the fundamental concepts, principles, and devices involved in industrial motor control. Emphasis is placed on developing a theoretical foundation of industrial motor control devices. Topics include: principles of motor control, control devices, symbols and schematic diagrams, and Article 430 NEC. (2-0-3-3)

**IDS 113, Magnetic Starters and Braking** (Credit: 3) (Prerequisite/Corequisite: IDS 110) Provides instruction in wiring motor control circuits. Emphasis is placed on designing and installing magnetic starters in across-the-line, reversing, jogging circuits, and motor braking. Topics include: control transformers, full voltage starters, reversing circuits, jogging circuits, and braking. (1-2-3-3)

**IDS 115, Two-Wire Control Circuits** (Credit: 2) (Prerequisite/Corequisite: IDS 110) Provides instruction in two-wire motor control circuits using relays, contactors, and motor starters with application sensing devices. Topics include: wiring limit switches, wiring pressure switches, wiring float switches, wiring temperature switches, wiring proximity switches, and wiring photo switches. (0-2-3-2)

**IDS 121, Advanced Motor Controls** (Credit: 2) (Prerequisite/Corequisite: IDS 115) Continues the study and application of motor control circuits with emphasis on sequencing circuits, complex circuits, and

motor control centers. Topics include: sequencing circuits, reduced voltage starting, motor control centers, and troubleshooting. (1-0-3-2)

**IDS 131, Variable Speed Motor Control** (Credit: 3) (Prerequisite/Corequisite: IDS 121) Provides instruction in the fundamentals of variable speed drives, industrial motors, and other applications of variable speed drives. Topics include: fundamentals of variable speed control, AC frequency drives, DC variable speed drives, installation procedures, and ranges. (2-0-3-3)

**IDS 141, Basic Industrial PLC's** (Credit: 6) (Prerequisite: IDS 105 and IDS 121) Introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installations, and startup procedures. Topics include: PLC hardware and software, PLC functions and terminology, introductory numbering systems, PLC installation and set up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures. (4-0-6-6)

**IDS 142, Industrial PLC's II** (Credit: 6) (Prerequisite/Corequisite: IDS 141) Provides for hands-on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated industrial equipment. Emphasis is placed on applying skills developed in previous courses in programmable logic controls (PLC's) in an industrial setting. This course includes advanced skills necessary to complete the student's knowledge and skills to understand and work with PLC's in an industrial plant. (4-0-6-6)

**IDS 209, Industrial Instrumentation** (Credit: 6) (Prerequisites: IDS 141 and IDS 142) Provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: instrument tags; process documentation; basic control theory; sensing pressure, flow, level, and temperature; instrument calibration; and loop tuning. (4-0-6-6)

**IDS 215, Industrial Mechanics** (Credit: 6) (Prerequisite: Satisfactory placement scores or MAT 190 or MAT 191 or MAT 194) Provides instruction in basic physics concepts applicable to mechanics of industrial production equipment, and teaches basic industrial application of mechanical principles with emphasis on power transmission and specific mechanical components. Topics include: mechanical tools, fasteners, basic mechanics, lubrication, bearings, packing and seals. (4-0-6-6)

**IDS 221, Industrial Fluidpower** (Credit: 7) (Prerequisite: Satisfactory placement scores or MAT 190 or MAT 191 or MAT 194) Provides instruction in fundamental concepts and theories for safely operating hydraulic components and systems. Topics include: hydraulic theory, suction side of pumps, actuators, valves, pumps/motors, accumulators, symbols and circuitry, fluids, filters, pneumatic theory, compressors, pneumatic valves, air motors and cylinders, and safety. (6-0-4-7)

**IDS 231, Pumps and Piping Systems** (Credit: 2) (Prerequisite: Satisfactory placement scores or MAT 190 or MAT 191 or MAT 194) Studies the fundamental concepts of industrial pumps and piping systems. Topics include: pump identification; pump operation; pump installation, maintenance, and troubleshooting; piping systems; and installation of piping systems. (1-0-4-2)

**IFC 100, Industrial Safety Procedures** (Credit: 2) (Prerequisite: Advisor approval) Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home

electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation. (2-1-0-2)

**IFC 101, Direct Current Circuits I** (Credit: 4) (Prerequisite: MAT 101 or MAT 103 or MAT 191) Introduces direct current (DC) concepts and applications. Topics include: electrical principles and laws; batteries; DC test equipment; series, parallel, and simple combination circuits; and laboratory procedures and safety practices. (3-2-0-4)

**IFC 102, Alternating Current I** (Credit: 4) (Prerequisite: IFC 101 or EET 101) Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers. (3-2-0-4)

**IFC 103, Solid State Devices I** (Credit: 4) (Prerequisite: IFC 102 or EET 101) Introduces the physical characteristics and applications of solid state devices. Topics include: introduction to semiconductor fundamentals, diode applications, basic transistor fundamentals, basic amplifiers, and semiconductor switching devices. (3-2-0-4)

**INT 100, Interior Design Fundamentals** (Credit: 5) (Prerequisite: Program admission) Emphasizes the fundamentals of design as applied to room composition. Topics include: interior planning concepts, space planning, traffic patterns utilization, elements of design, and principles of design. (5-0-0-5)

**INT 102, Furniture and Accessories I** (Credit: 5) (Prerequisite: Program admission) Emphasis is on historical foundations of furniture, accent pieces, and accessories from the Egyptian through the Classical Revival period. Topics include: materials usage; historical design development; quality; appropriate use of furnishings, accent pieces, and accessories; and antiques, collectibles, and reproductions identification. (5-0-0-5)

**INT 105, Print Reading for Interiors** (Credit: 2) (Prerequisites/Corequisites: SCT 100 and INT 106) Emphasizes familiarization with drafting and blueprint techniques. Topics include: basic mechanical drawing techniques, symbol and abbreviation identification (including basic electrical; plumbing; furniture; reading and understanding specifications; estimating for carpeting, paint and wallpaper), floor and space planning, blueprint reading and reading scales. (2-0-0-2)

**INT 106, Building and Technical Services for Interiors** (Credit: 2) (Prerequisites/Corequisites: SCT 100 and INT 105) Emphasizes familiarization with interior construction and service systems for interiors. Topics include: interior and exterior construction systems, building materials (traditional, current, future), construction documents, and communication with architects and construction industry. (2-0-0-2)

**INT 107, Lighting Technology for Interiors** (Credit: 2) (Prerequisite: Program admission) Provides basic knowledge of vision as affected by light, color, texture, and form. Introduces the basic principles of lighting design including criteria, calculations, planning, and layout. Topics include: lighting technology, lighting analysis, residential and contract lighting, lighting design, and lighting applications. (1-2-0-2)

**INT 108, Color Theory** (Credit: 2) (Prerequisite: Program admission) Introduces the use of color in interior design. Emphasizes color theories, the psychology of colors, and the application of colors in designing interior environments. Topics include: color perception, color vocabulary, psychological effects, color and interior design, and color systems. (1-2-0-2)

**INT 110, Materials and Resources I** (Credit: 4) (Prerequisite: Program admission) Emphasizes the background knowledge necessary for selection of interior finishes and materials needed in interior environments. Topics include: technical criteria, selection and resourcing for interiors, and architectural finishes (such as molding, flooring, wall treatments, cabinets, sinks, and carpets). (4-0-0-4)

**INT 111, Materials and Resources II** (Credit: 4) (Prerequisite: Program admission) Emphasizes the background knowledge necessary for selection of interior finishes and materials needed in interior environments. Topics include: technical criteria, selection and resourcing for interiors, and architectural finishes (such as textiles, window treatments, bedspreads, fabric treatments, and upholstery). (4-0-0-4)

**INT 115, Introduction to Drawing for Interior Designers** (Credit: 3) (Prerequisite: Program admission) Introduces the application of drawing techniques used in interior design. Topics include: alphabet of lines, architectural style, geometric shapes, floor plan layouts, interior elevations, and interior pictorials. (1-0-6-3)

**INT 116, CAD Fundamentals for Interior Design** (Credit: 3) (Prerequisites: Program admission, MAT 191 or MAT 196 [degree] or MAT 111 [diploma], INT 115, and SCT 100) Introduces basic computer language and application of computers to the field of interior design. Topics include: introduction to CAD language and applications; writing specifications; project schedules; and techniques of executing orthographic views, plans, and elevations. (2-2-0-3)

**INT 118, History of Interiors and Architecture I** (Credit: 5) (Prerequisites: Provisional admission, ENG 097, and RDG 097; Corequisite: SCT 100) Emphasis is on historical foundations of furniture and architecture from the Ancient through the Renaissance. Topics include: historical architectural and furniture concepts, classical orders, furniture and architectural terminology, furniture and architectural construction and materials, and historic design development. (5-0-0-5)

**INT 119, History of Interiors and Architecture II** (Credit: 5) (Prerequisite: INT 118) Emphasis is on historical foundations of furniture and architecture from the Baroque to the present. Topics include: historical architectural and furniture concepts, furniture and architectural terminology, furniture and architectural construction and materials and historic design development. (5-0-0-5)

**INT 140, Interiors Seminar** (Credit: 3) (Prerequisite: INT 116) Emphasizes professional development through career resources and artistic exploration. Topics include: informational interviewing, networking, cultural development, and artistic exploration. (1-4-0-3)

**INT 142, Interiors Internship I** (Credit: 4) (Prerequisite: Program admission) Provides students with in-depth application and reinforcement of interiors and employability principles in an actual job setting. This internship allows the student to become involved in intensive on-the-job interiors applications that require full-time concentration, practice, and follow through. The interiors internship is implemented through the use of written individualized training plans, written performance evaluations, required seminars, a required student project, and lab activities. Topics include: application of interiors principles; problem solving; adaptability to job setting; use of proper interpersonal skills; development of constructive work habits and appropriate work ethic, with consideration of factors such as confidentiality; and concentrated development of productivity and quality job performance through practice. (0-0-12-4)

**INT 143, Interiors Internship II** (Credit: 4) (Prerequisite: Program admission) Provides students with in-depth application and reinforcement of interiors and employability principles in an actual job setting. This internship allows the student to become involved in intensive on-the-job interiors applications that require full-time concentration, practice, and follow through. The interiors internship is implemented through the use of written individualized training plans, written performance evaluations, required seminars, a required student project, and lab activities. Topics include: application of interiors principles; problem solving; adaptability to job setting; use of proper interpersonal skills; development of constructive work habits and appropriate work ethic, with consideration of factors such as confidentiality; and concentrated development of productivity and quality job performance through practice. (0-0-12-4)

**INT 150, Painted and Faux Finishes I** (Credit: 6) (Prerequisite: Program admission) Focuses on introductory techniques used to produce fantasy finishes on furniture and interior walls. Topics include history of faux finishes, color mixing, technology of paint, materials usage and specific issues related to wall glazing, ragging, sponging, strie, wood graining, textured granite, stones and many other current and ancient techniques. (4-6-0-6)

**INT 151, Painted and Faux Finishes II** (Credit: 6) (Prerequisite: INT 150) Focuses on techniques used to produce faux and fantasy finishes on furniture and walls. Topics include: business practices of the professional faux artist, color, designing with painted finishes, and advanced finish techniques. (4-6-0-6)

**INT 210, Design Studio I** (Credit: 4) (Prerequisites: INT 107, INT 110, INT 111, and INT 116; Corequisites: INT 108 and INT 119) Introduces current generation technology for use in design presentations. Topics include: Technological communications used within the design professions. (3-2-0-4)

**INT 211, Design Studio II** (Credit: 3) (Prerequisites: INT 107, INT 110, INT 111, INT 116 and INT 118; Corequisites: INT 108 and INT 119) Provides students with long and short term projects which address real-life design situations and requires competence in solving design problems with an emphasis on residential design. Topics include: application of the principles and elements of design, space planning, materials selections, graphic presentation, project documentation and delivery, client presentation techniques. (1-0-6-3)

**INT 212, Design Studio III** (Credit: 3) (Prerequisites: INT 211) Provides students with long and short term projects which address real-life design situations and begins to develop competence in solving residential and commercial design problems. This course continues the studio experiences of INT 211, Design Studio II. Topics include: Application of the principles and elements of design, space planning, materials selection, graphic presentation, project documentation and implementation, client presentation techniques. (1-0-6-3)

**INT 220, Business Practices for Design Professionals** (Credit: 8) (Prerequisites: INT 107, INT 110, INT 111, and INT 116; Corequisites: INT 108 and INT 119) Capstone class utilizing all skills, knowledge and techniques required for successful business practices in the design industry. Topics include: Professional skill development, Business Development Strategies, Establishing Successful Client Relationships, Resources and Service Providers and Portfolio exhibit in a professional setting. (7-0-3-8)

**ISA 132, Clinical Practice** (Credit: 2) (Prerequisites: AHS 101 and RAD 101) Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: Hospital area and hospital protocol, film processing

procedures, basic patient care and radiation safety radiographic procedure responsibilities and office and film room procedures. (0-0-8-2)

**LER 100, 4-Cycle Engines** (Credit: 5) (Prerequisite: Provisional admission) Introduction to basic four-stroke engine operation. Topics include: Lawn Equipment four-stroke engine fundamentals, electrical/ignition systems, governor systems, fuel systems, and precision measuring. (2-6-0-5)

**LER 105, Transaxle Repair** (Credit: 5) (Prerequisite/Corequisite: LER 100) This course introduces the basics of Lawn Equipment clutch, transmission/transaxle, and hydrostatic transmission operation, diagnosis and repair. (2-6-0-5)

**LER 110, General Lawnmower Repair** (Credit: 3) (Prerequisite/Corequisite: LER 100, LER 105) Introduces general equipment maintenance and electrical system, bearings, and steering system diagnosis and repair. (1-4-0-3)

**LER 115, 2-Cycle Engine Equipment Repair** (Credit: 3) (Prerequisite: Program admission) Introduces two-stroke engine operation. Topics include: Lawn Equipment two-stroke engine fundamentals, ignition systems, governor systems, and fuel systems. (1-4-0-3)

**MAS 101, Legal Aspects of the Medical Office** (Credit: 3) (Prerequisite: Provisional admission) Introduces the basic concept of medical assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical assistant's role as an agent of the physician. Provides the student with knowledge of medical jurisprudence and the essentials of professional behavior. Topics include: introduction to medical assisting, introduction to medical law, physician-patient-assistant relationship, medical office in litigation, ethics, and bio-ethics and state laws. (3-0-0-3)

**MAS 103, Pharmacology** (Credit: 5) (Prerequisites: AHS 101, AHS 109, and MAT 101) Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/or adverse reactions. Also introduces the basic concept of mathematics used in the administration of drugs. Topics include: introduction to pharmacology, calculation of dosages, sources and forms of drugs, drug classification, and drug effects on the body systems. (5-0-0-5)

**MAS 106, Medical Office Procedures** (Credit: 5) (Prerequisite: Program admission) Emphasizes essential skills required for the typical medical office. Topics include: medical office protocol, time management, appointment making, telephone techniques, medical office equipment, mail services, medical references, medical filing, correspondence, and travel and meeting arrangements. (4-2-0-5)

**MAS 108, Medical Assisting Skills I** (Credit: 6) (Prerequisites: Program admission, AHS 101 and AHS 109) Introduces the skills necessary for assisting the physician with a complete history and physical in all types of practices. The course includes skills necessary for sterilizing instruments and equipment, and setting up sterile trays. The student also explores the theory and practice of electrocardiography. Topics include: infection control and related OSHA guidelines, prepare patients/assist physician with examinations and diagnostic procedures, vital signs/mensuration, minor office surgical procedures, and electrocardiograms/holter monitor. (2-4-6-6)



**MAS 109, Medical Assisting Skills II** (Credit: 6) (Prerequisite: MAS 108) Furthers the student's knowledge of the more complex activities in a physician's office. Topics include: collection/examination of specimens and CLIA regulations; venipuncture and urinalysis. (2-4-6-6)

**MAS 110, Medical Insurance Management** (Credit: 3) (Prerequisites: Program admission, AHS 101, AHS 109, and MAS 106) Emphasizes essential skills required for the medical practice. Topics include: managed care, reimbursement, and coding. (1-2-3-3)

**MAS 111, Administrative Practice Management** (Credit: 4) (Prerequisites: Program admission, ENG 101 or ENG 191, AHS 101, AHS 109, BUS 101, and SCT 100) Emphasizes essential skills required for the medical practice in the areas of computers and medical transcription. Topics include: medical transcription/electronic health records; application of computer skills; integration of medical terminology; accounting procedures; and application of software. (2-2-3-4)

**MAS 112, Human Diseases** (Credit: 5) (Prerequisites: AHS 101 and AHS 109) Provides clear, succinct, and basic information about common medical conditions. Taking each body system, the disease condition is highlighted following a logical formation consisting of: description, etiology, signs and symptoms, diagnostic procedures, treatment, prognosis, and prevention. Topics include: introduction to disease and diseases of body systems. (5-0-0-5)

**MAS 117, Medical Assisting Externship** (Credit: 8) (Prerequisite: Completion of all required courses except MAS 118; Corequisite: MAS 118) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical office job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application, and requires concentration, practice, and follow through. Topics include: application of classroom knowledge and skills, functioning in the work environment, listening, and following directions. (0-0-18/24-6/8)

**MAS 118, Medical Assisting Seminar** (Credit: 4) (Prerequisite: Completion of all required courses except MAS 117; Corequisite: MAS 117) Seminar focuses on job preparation and maintenance skills, and review for the certification examination. Topics include: letters of application, resumes, job interviews, and letters of resignation. (4-0-0-4)

**MAS 151, ICD-9-CM Coding I** (Credit: 3) (Prerequisites: AHS 101, AHS 109, ENG 101, and BUS 101) Provides an introduction to medical coding skills and applications of international coding standards for billing of health care services. Topics include: International classification of diseases, code book formats, guidelines and conventions, and coding techniques. (2-0-3-3)

**MAS 152, ICD-9 Coding II** (Credit: 3) (Prerequisite: MAS 151; Corequisite: MAS 153) Continues development of skills and knowledge presented in ICD-9 Coding I and provides for patient disease and medical procedure coding for billing purposes by health care facilities. Topics include: medical records coding techniques; coding linkage and compliance; third-party reimbursement issues; and ethics in coding including fraud and abuse. (2-0-3-3)

**MAS 153, Physicians' Procedural Coding** (Credit: 3) (Prerequisite: MAS 151) Provides the knowledge and skills to apply the coding of procedures for billing purposes using the Physicians' Current Procedural

Terminology (CPT) manual. Topics include: format of CPT manual, CPT manual coding guidelines, and coding using the CPT manual. (3-0-0-3)

**MAT 0096 (MAT 096), Learning Support Mathematics II** (Credit: 5 I.C.) (Prerequisite: Placement by diagnostic testing) Teaches the student basic arithmetic skills needed for the study of mathematics related to specific occupational programs. Topics include: whole numbers, fractions, decimals, and measurement. Laboratory work may be required at the discretion of the instructor. (5-0-0-5I.C.)

**MAT 0097 (MAT 097), Learning Support Mathematics III** (Credit: 5 I.C.) (Prerequisite: Placement by diagnostic testing *or* MAT 0096) Emphasizes in-depth arithmetic skills needed for the study of mathematics related to specific occupational programs and for the study of basic algebra. Topics include: whole numbers, fractions, decimals, percents, measurement, geometry and application problems. Laboratory work may be required at the discretion of the instructor. (5-0-0-5I.C.)

**MAT 0098 (MAT 098), Elementary Algebra** (Credit: 5 I.C.) (Prerequisite: Placement by diagnostic testing *or* MAT 0097) This course provides instruction in basic algebra. Topics include: introduction to real numbers and algebraic expressions, solving equations and inequalities, graphs of linear equations, polynomial operations, and polynomial factoring. Graphing calculator skills are developed and used throughout the course of instruction. Laboratory work may be required at the discretion of the instructor. (5-0-0-5I.C.)

**MAT 0099 (MAT 099), Intermediate Algebra** (Credit: 5 I.C.) (Prerequisite: Placement by diagnostic testing *or* MAT 0098) This course provides instruction in intermediate algebra. Topics include: factoring, inequalities, rational expressions and equations, linear graphs, slopes, and applications radical expressions and equations, and quadratic equations. Graphing calculator skills are developed and used throughout the course of instruction. Laboratory work may be required at the discretion of the instructor. *Students must pass the COMPASS exit exam with a satisfactory score before enrolling in MAT 1101 or 1111.* (5-0-0-5I.C.)

**MAT 1011 (MAT 111), Business Mathematics** (Credit: 5) (Prerequisite: MAT 097 or entrance arithmetic score in accordance with approved TCSG admission score) Emphasizes mathematical concepts found in business situations. Topics include: basic mathematical skills, mathematical skills in business-related problem solving, mathematical information for documents, graphs, and mathematical problems using electronic calculators. (5-0-0-5)

**MAT 1012 (MAT 101), Foundations of Mathematics** (Credit: 5) (Prerequisite: MAT 097 or entrance arithmetic score in accordance with approved TCSG admission score) Emphasizes the application of basic mathematical skills used in the solution of occupational and technical problems. Topics include: fractions, decimals, percents, ratios and proportions, measurement and conversion, formula manipulation, technical applications, and basic statistics. (5-0-0-5)

**MAT 1013 (MAT 103), Algebraic Concepts** (Credit: 5) (Prerequisite: MAT 098 or entrance algebraic score in accordance with approved TCSG admission score) Introduces concepts and operations which can be applied to the study of algebra. Course content emphasizes: basic mathematical concepts; basic algebraic concepts; and intermediate algebraic concepts. Class includes lecture, applications, and homework to reinforce learning. (5-0-0-5)

**MAT 1015 (MAT 104), Geometry and Trigonometry** (Credit: 5) (Prerequisite: MAT 1013 with a C or better) Introduces and develops basic geometric and trigonometric concepts. Course content emphasizes: geometric concepts and trigonometric concepts. (5-0-0-5)

**MAT 1017 (MAT 105), Trigonometry** (Credit: 5) (Prerequisite: MAT 1013 with a C or better) Emphasizes trigonometric concepts. Introduces logarithms and exponential functions. Topics include: geometric formulas, trigonometric concepts, and logarithms and exponentials. (5-0-0-5)

**MAT 1100 (MAT 196), Quantitative Skills and Reasoning** (Credit: 6) (Prerequisite: Program admission requirements or MAT 098 and/or MAT 1013 with a passing grade of C or better) Overview course covering algebra, statistics and mathematics of finance. Topics include: fundamental operations of Algebra, sets and logic, probability and statistics, Geometry, Mathematics of voting and districting, and mathematics of finance. Graphing calculator required. (5-2-0-6)

**MAT 1101 (MAT 190), Math Modeling** (Credit: 5) (Prerequisite: Minimum algebra score or completion of MAT 099 with a minimum exit ASSET/COMPASS score) This course is designed as an alternative to college algebra for those students who will not take trigonometry, precalculus, or calculus. It is an applications-driven course that introduces functions using real-world phenomena as models. Topics include: fundamental concepts of algebra; functions and graphs; linear, quadratic, polynomial, exponential and logarithmic functions and models of real-world phenomena; systems of equations, and additional topics in algebra. Graphing calculator required. (5-0-0-5)

**MAT 1111 (MAT 191), College Algebra** (Credit: 5) (Prerequisite: Minimum algebra score or completion of MAT 099 with a minimum exit ASSET/COMPASS score) This course emphasizes techniques of problem solving using algebraic concepts. Topics include: fundamental concepts of algebra; equations and inequalities; functions and graphs; systems of equations; optional topics including sequences, series, and probability; and analytic geometry. Graphing calculator required. (5-0-0-5)

**MAT 1112 (MAT 193), College Trigonometry** (Credit: 5) (Prerequisite: MAT 1111 with a C or better) Emphasizes techniques of problem solving using trigonometric concepts. Topics include: trigonometric functions, properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions/graphing, logarithmic and exponential functions, and complex numbers. (5-0-0-5)

**MAT 1113 (MAT 194), Precalculus** (Credit: 5) (Prerequisite: MAT 1111 with a C or better) This course prepares students for calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay. Graphing calculator required. (5-0-0-5)

**MAT 1127 (MAT 198), Introduction to Statistics** (Credit: 5) (Prerequisite: MAT 1101 or MAT 1111 with C or better) Discusses the concepts and methods fundamental to utilizing and interpreting commonly used statistics. Topics include: descriptive statistics, basic probability, discrete and continuous distributions, sampling distributions, hypothesis testing, chi square test and linear regression. Graphing calculator required. (5-0-0-5)

**MAT 1131 (MAT 195), Differential Calculus** (Credit: 6) (Prerequisite: MAT 1113 with C or better) Emphasizes the use of differential calculus. Applications of techniques include extreme value problems,

motion, graphing and other topics as time allows. Topics include: derivatives and applications, differentiation of transcendental functions and introduction to integration and applications. Graphing calculator required. (5-2-0-6)

**MKT 100, Introduction to Marketing** (Credit: 5) (Prerequisite: Provisional admission) Emphasizes the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include: marketing strategies, marketing mix, marketing trends, and dynamic forces affecting markets. (5-0-0-5)

**MKT 101, Principles of Management** (Credit: 5) (Prerequisite: ENG 111 [diploma], or ENG 191 [degree]) Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on personnel management, the basic supervisory functions, supervisory skills and techniques, and the special challenges and demands of supervising employees. Topics include: management theories, including total quality management; motivation, supervision, and evaluation of employees; recruitment, screening, and selection of employees; supervision techniques; and functions of management. (5-0-0-5)

**MKT 103, Business Law** (Credit: 5) (Prerequisite: Provisional admission) Introduces the study of contracts and other business obligations in the legal environment. Topics include: creation and evolution of laws, court decision processes, sales contracts, commercial papers, risk-bearing devices, and Uniform Commercial Code. (5-0-0-5)

**MKT 104, Principles of Economics** (Credit: 5) (Prerequisite: Provisional admission) Provides a study of micro and macroeconomic principles, policies, and applications. Topics include: supply and demand, money and the banking system, business cycle, and economic systems. (5-0-0-5)

**MKT 106, Fundamentals of Selling** (Credit: 5) (Prerequisite: Provisional admission) Emphasizes sales strategies and techniques to assist the student in the sales process. Topics include: customer relations, professional image, product/service knowledge, selling techniques and procedures, sales presentations, and ethics of selling. (5-0-0-5)

**MKT 107, Buying** (Credit: 5) (Prerequisite: Provisional admission) Introduces the fundamental principles of buying, merchandising, and accounting for products and services. Topics include: assortment planning; locating resources; ordering merchandise; just-in-time or quick response inventory control; pricing for profit; and financial statements, ratios, and accounting vocabulary. (5-0-0-5)

**MKT 108, Advertising** (Credit: 4) (Prerequisite: Program admission) Introduces the fundamental principles and practices associated with advertising activities. Topics include: purposes of advertising; principles of advertising; budgeting; marketing and advertising plans; regulations and controls; media evaluation, target marketing, and selection; campaign planning; and trends in advertising. (3-2-0-4)

**MKT 109, Visual Merchandising** (Credit: 4) (Prerequisite: Provisional admission) Focuses on the components of display necessary for the effective visual presentation of goods and services. Opportunities will be provided to utilize the principles and techniques that are common to display work in various types of businesses. Emphasis will be placed on design, color, tools and materials, and installation of displays. Topics include: design and color principles, tools and materials of the trade, props and fixtures, lighting and signing, installation of displays, store planning, and safety. (3-2-0-4)

**MKT 110, Entrepreneurship (Marketing Management Capstone Course)** (Credit: 8) (Prerequisites: SCT 100, MKT 100 and MSD 100) Provides an overview of the activities that are involved in planning, establishing, and managing a small business enterprise. Topics include: planning, location analysis, financing, and development of a business plan. (6-4-0-8)

**MKT 122, Buying and Merchandise Management** (Credit: 5) (Prerequisite: Program admission level math) Introduces the fundamental principles of buying, merchandising, and accounting for products and services. Topics include: assortment planning; locating resources; ordering merchandise; just-in-time or quick response inventory control; pricing for profit; and financial statements, ratios, and accounting vocabulary, principles of merchandising, traffic patterns, basic stock and inventory, inventory control, mark-ups and mark-downs, and types of discounts. (5-0-0-5)

**MKT 123, Small Business Management** (Credit: 5) (Prerequisites: ACC 101, program ready English, and program ready Math) Summarizes competencies included in the entrepreneurship specialization and provides opportunities for application and demonstration of skills. Topics include: management principles, marketing functions, financial applications, and entrepreneurial growth potential. (5-0-0-5)

**MKT 125, Retail Operations Management** (Credit: 5) (Program admission) Emphasizes the planning, organizing, and managing of retail firms. Topics include: organizational development, strategic planning, short-term planning, human resource management, inventory controls, analysis of profit and loss statements and balance sheets, and entrepreneurship. (5-0-0-5)

**MKT 130, Marketing Administration O.B.I. I** (Credit: 3) (Prerequisites: Program admission, MSD 100, or instructor permission based upon experience) Introduces the application and reinforcement of marketing administration and employability principles in an actual job placement or practicum experience. Students become acquainted with occupational responsibilities through realistic work situations and are provided with insights into marketing administration applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of marketing administration techniques, and professional development. The occupation-based instruction is implemented through the use of written individualized training plans, written performance evaluation, required weekly seminar, and required practicum or on-the-job training. (0-0-10-3)

**MKT 131, Marketing Administration O.B.I. II** (Credit: 3) (Prerequisite: MKT 130) Focuses on the application and reinforcement of marketing administration and employability principles in an actual job placement or practicum experience. Students become acquainted with occupational responsibilities through realistic work situations and are provided with insights into marketing administration applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of marketing administration techniques, and professional development. The occupation-based instruction is implemented through the use of written individualized training plans, written performance evaluation, required weekly seminar, and required practicum or on-the-job training. (0-0-10-3)

**MKT 134, Entrepreneurship O.B.I. I** (Credit: 3) (Prerequisite: Program admission, program ready English, MKT 101, or instructor permission based upon experience) Introduces the application and reinforcement of entrepreneurship and employability principles in an actual job placement or practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into entrepreneurship applications on the job. Topics include: problem

solving, adaptability to the job setting, use of proper interpersonal skills, application of entrepreneurship techniques, and professional development. The occupation-based instruction is implemented through the use of written individualized training plans, written performance evaluation, required weekly seminar, and required practicum or on-the-job training. (0-0-10-3)

**MKT 135, Entrepreneurship O.B.I. II** (Credit: 3) (Prerequisite: MKT 134) Focuses on the application and reinforcement of entrepreneurship and employability principles in an actual job placement or practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into entrepreneurship applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of entrepreneurship techniques, and professional development. The occupation-based instruction is implemented through the use of written individualized training plans, written performance evaluation, required weekly seminar, and required practicum or on-the-job training. (0-0-10-3)

**MKT 141, Supervision and Leadership I** (Credit: 5) (Prerequisite: Provisional admission) Provides the student with an introduction to the skills and attitudes necessary for successful supervision of people and job responsibilities. Topics include: personnel management, the basic supervisory functions, supervisory skills and techniques, and special challenges and demands of supervision. (5-0-0-5)

**MKT 150, Leadership Development I** (Credit: 1) Develops knowledge and skills in leadership appropriate for the managerial career field. Topics include: professional organization enrollment, officer training, project coordination - promoting the free enterprise system, and presentations of enterprise system reports. (1-0-2-1)

**MKT 152, Leadership Development II** (Credit: 1) Develops knowledge and skills in leadership appropriate for the managerial career field. Topics include: program/meeting planning, project coordination-fund raising, presentations of fund raising project reports, and parliamentary procedures. (1-0-2-1)

**MKT 205, Internet Marketing** (Credit: 5) This course introduces and demonstrates the use of the Internet and the World Wide Web As a strategic marketing tool. Topics include: the electronic marketplace, Strategies in using the Internet, tools of electronic marketing, web design principles, customer communication, security, and trends. (5-0-0-5)

**MKT 228, Advanced Marketing** (Credit: 5) (Prerequisite: MKT 100) Advanced study of the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include: advanced marketing strategies, marketing mix, marketing trends, and dynamic forces acting on the market. (5-0-0-5)

**MKT 232, Advanced Sales** (Credit: 4) This course emphasizes the advanced sales presentation skills needed to build partnerships with business representatives and final consumers. Topics include sales presentations, customer relationship management, sales training, self-management, and sales force training. (3-2-0-4)

**MKT 250, Leadership Development V** (Credit: 1) Develops knowledge and skills in leadership appropriate for the managerial career field. Topics include: project coordination-membership drive, presentations of membership drive project reports, and professional development. (1-0-2-1)

**MKT 252, Leadership Development VI** (Credit: 1) Develops knowledge and skills in leadership appropriate for the managerial career field. Topics include: project coordination-speaker's bureau to promote organization in the community and presentations of speaker's bureau project reports. (1-0-2-1)

**MSD 100, Principles of Management** (Credit: 5) (Prerequisite: Provisional admission) Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on real life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include: understanding the manager's job and work environment; building an effective organizational culture; leading, directing, and the application of authority; planning, decision-making, and problem-solving; human resource management; administrative management, organizing, and controlling. (5-0-0-5)

**MSD 101, Organizational Behavior** (Credit: 5) (Prerequisite: Provisional admission) Provides a general knowledge of the human relations aspects of the senior-subordinate workplace environment. Topics include: employee relations principles, problem solving and decision making; leadership techniques to develop employee morale, human values and attitudes; organizational communications; interpersonal communications; and employee conflict. (5-0-0-5)

**MSD 102, Employment Law** (Credit: 5) (Prerequisite: Provisional admission) Develops a working knowledge of the laws of employment necessary for managers. Topics include: Employment Law, the Courts, Alternative Dispute Resolution (ADR), Discrimination Law, selecting applicants under the law, OSHA and safety, Affirmative Action, At-Will Doctrine, Right to Privacy, Fair Labor Standards Act (FLSA), Family Medical Leave Act (FMLA), Worker's Compensation, Unemployment Compensation, and National Labor Relations Act. (5-0-0-5)

**MSD 103, Leadership** (Credit: 5) (Prerequisite: Provisional admission) Familiarizes the student with the principles and methods of sound leadership and decision making. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various decision making processes, the ability to make sound and timely decisions, leadership within the framework of the major functions of management, and delegation of authority and responsibility. (5-0-0-5)

**MSD 104, Human Resources Management** (Credit: 5) (Prerequisite: Provisional admission)  
This course is designed as an overview of the Human Resource Management (HRM) function and the manager and supervisor's role in managing the career cycle from organizational entry to exit. It acquaints the student with the authority, responsibility, functions, and problems of the human resource manager, with an emphasis on developing familiarity with the real world applications required of employers and managers who increasingly are in partnership with HRM generalists and specialists in their organizations. Topics include: strategic human resource management, contemporary issues in HRM: ethics, diversity and globalization; the human resource/supervisor partnership; human resource planning and productivity; job description analysis, development, and design: recruiting, interviewing, and selecting employees; performance management and appraisal systems; employee training and development : disciplinary action and employee rights; employee compensation and benefits; labor relations and employment law; and technology applications in HRM. (5-0-0-5)

**MSD 105, Labor Management Relations** (Credit: 5) (Prerequisite: Provisional admission) Provides students with an overview of the relationship of rank and file employees to management in business organizations. The nature of the workplace, the economic foundations of work organizations, and the history of the relationship between management and labor is examined. The course acquaints the students with the principles of developing positive relationships between management and labor within the context of the legal environment governing labor relations. Topics include: the nature of the American workplace; the economic history of business organizations, the historical roots of labor-management relations; adversarial and cooperative approaches to labor relations; the legal framework of labor relations; employee-employer rights; collective bargaining and union organizing processes; union and nonunion grievance procedures; international labor relations; and the future of labor-management relations in a changing economy. Case studies, readings, and role-plays are used to stimulate workplace applications in labor relations. (5-0-0-5)

**MSD 106, Performance Management** (Credit: 5) (Prerequisite: Provisional admission) Develops an understanding of the how fostering employer/employee relationships in the work setting improves work performance. Develops legal counseling and disciplinary techniques to use in various workplace situations. Topics include: the definitions of coaching, counseling, and discipline; importance of the coaching relationship; implementation of an effective counseling strategy; techniques of effective discipline; and performance evaluation techniques. (5-0-0-5)

**MSD 107, Employee Training and Development** (Credit: 5) (Prerequisite: Provisional admission) Addresses the challenges of improving the performance and career potential of employees, while benefiting the student in their own preparation for success in the workplace. The focus is on both training and career and personal development. Shows the student how to recognize when training and development is needed and how to plan, design, and deliver an effective program of training for employees. Opportunities are provided for the student to develop their own career plans, assess their work-related skills, and practice a variety of skills desired by employers. Topics include: developing a philosophy of training; having systems approach to training and development; the context of training; conducting a needs analysis; critical success factors for employees; learning principles; designing and implementing training plans; conducting and evaluating training; human resource development and careers; personal career development planning; and applications in interpersonal relationships and communication. (5-0-0-5)

**MSD 109, Managerial Accounting & Finance** (Credit: 5) (Prerequisite: Program admission) The focus of this course is to acquire the skills and concepts necessary to use accounting information in managerial decision making. Course is designed for those who will use, not necessarily prepare, accounting information. Those applications include the use of information for short and long term planning, operational control, investment decisions, cost and pricing products and services. An overview of financial accounting and basic concepts of finance provides an overview of financial statement analysis. Topics include: Accounting background, accounting equation, financial statements and financial statement analysis, budgeting and planning, applied analysis for management decisions, cost flow analysis in manufacturing with applications in process improvement, applications in product profitability, cost and pricing, client/server technology: computer software applications, payroll, income tax, inventory management, ethical responsibilities. (5-0-0-5)



**MSD 112, Introduction to Business and Economics** (Credit: 5) (Prerequisite: Provisional admission) This course is designed to provide the student with an overview of the functions of business in the market system. The student will gain an understanding of the numerous decisions that must be made by managers and owners of businesses. Topics include: the market system, the role of supply and demand, financial management, legal issues in business, employee relations, ethics, and marketing. (5-0-0-5)

**MSD 113, Business Ethics** (Credit: 5) (Prerequisite: Provisional admission) Provides students with an overview of business ethics and ethical management practices, with emphasis on the process of ethical decision-making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to students how ethics can be integrated into strategic business decisions and can be applied to their own careers. The course uses a case study approach to encourage the student in developing analytical, problem-solving, critical thinking and decision-making skills. Topics include: an overview of business ethics; moral development and moral reasoning; personal values, rights, and responsibilities; frameworks for ethical decision-making in business; justice and economic distribution; corporations and social responsibility; corporate codes of ethics and effective ethics programs; business and society; consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace; and business ethics and the rule of law. (5-0-0-5)

**MSD 114, Organizational Communications and Information Technology** (Credit: 5) (Prerequisite: Provisional admission; Corequisite: SCT 100) This course focuses on communication, supervision, and organizations in the age of technology. It builds on the basic computer skills introduced in SCT 100 using computer-based technology to develop skills in applying information technology. The student will create written, verbal, and electronic communication applied to supervisory functions in the work place. Topics include: word processing applications; spreadsheet applications; database applications, presentation technology and applications, graphical interface applications, interpersonal communications; organizational communications; applications come from communications, human resource management, and general business. (4-2-0-5)

**MSD 117, Small Business Management** (Credit: 5) (Prerequisite: Provisional admission) Introduces the essentials of starting, managing, and growing a small business. Topics include: the role of the entrepreneur, pricing, advertising, financing, layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business. (5-0-0-5)

**MSD 150, Production Management** (Credit: 5) (Prerequisite: Program admission) This course provides the student with an intensive study of the overall field of production management. Of particular interest is the field of manufacturing supervision. Topics include: role of production management/production managers, production systems, capacity planning, aggregate planning, inventory management, project management, and quality control/assurance.(5-0-0-5)

**MSD 156, Supervision in a Service Environment** (Credit: 5) (Prerequisite: Provisional admission) This course focuses on supervision in the service sector with special emphasis on team building, quality management, and developing a customer focus. The challenge of providing world-class customer service is addressed through sections on principles of service industry supervision, career development, problem solving, stress management, and conflict resolution. Topics include: principles of service industry supervision, team building, customer service operations, TQM in a service environment, business software applications, communication in the service sector, introduction to information

systems, selling principles and sales management, retail management, and legal issues in the service sector. (5-0-0-5)

**MSD 206, Project Management** (Credit: 5) (Prerequisite: Provisional admission) Provides a basic understanding of project management functions and processes. Topics include: team selection and management; project planning, definition and scheduling of tasks; resource negotiation, allocation, and leveling; project control, monitoring, and reporting; computer tools for project planning and scheduling; managing complex relationships between project team and other organizations; critical path methodology; and total quality management. (5-0-0-5)

**MSD 210, Team Project (Management and Supervisory Development Capstone Course)** (Credit: 5) (Prerequisites: SCT 100, MKT 100 and MSD 100) This course utilizes team methodologies to study the field of management. It encourages students to discuss their perception of management practices which have been studied during the management program. Topics include: current issues and problems in management and supervision and state-of-the-art management and leadership techniques. (5-0-0-5)

**MSD 220 Management Occupation Based Instruction I** (Credit: 3) (Prerequisites: Program admission and MSD 100) Introduces students to the application and reinforcement of management, supervision, and employability principles in an actual job placement or through a practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of management and supervisory techniques, and professional development. The occupation-based instruction is implemented through the use of a practicum or internship and all of the following: written individualized training plans, written performance evaluation, and a required weekly seminar. (0-0-10-3)

**MSD 224, Crisis Reaction and Response** (Credit: 5) (Prerequisite: MSD 124) This course will provide an overview of stress reactions as applied to victims and rescuers. This course will also provide a specific focus on preventing vicarious victimization, stress and reactions, and post traumatic stress disorder, and Critical Incident Stress Debriefing (CISD) as applied to specific organizations and individuals. As a final outcome, the student will develop an intervention and training program for an identified group. (5-0-0-5)

**MUS 1101 (MUS 191), Music Appreciation** (Credit: 5) (Prerequisite: ENG 1101 with a grade of C or better) Explores the analysis of well-known works of music, their composition, and the relationship to their periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research to include: the creative and critical process, the themes of music, the formal elements of composition, and the placing of music in the historical context, writing analysis, practice, revision, and research about a musical composition or compositions. Topics include: historical and cultural development represented in musical arts; contributions of the musical arts; and communication skills. (5-0-0-5)

**NDT 102, Visual Inspection** (Credit: 3) (Prerequisite/Corequisite: IFC 100) This course is designed to familiarize the student with visual inspection theory and practices. The focus is on welding related subject matter. Topics include welding processes, accept/reject criteria, fundamentals and applications

of visual inspection, equipment use, environmental and physiological factors and recording and reports. (3-1-0-3)

**NDT 104, Eddy Current Inspection** (Credit: 4) (Prerequisite/Corequisite: IFC 100) This course is designed to provide students with the knowledge and skills necessary to perform eddy current inspection. Topics include basic electromagnetic physics, electromagnetic techniques, evaluation of electromagnetic processes, and applications for electromagnetic testing. (4-1-0-4)

**NDT 106, Liquid Penetrant Inspection** (Credit: 3) (Prerequisite/Corequisite: IFC 100) This course is designed to provide instruction in the basic principles and practices of liquid penetrant inspection. Students will learn why and when to use the various types of penetrant materials, and the proper techniques necessary for reliable inspection. Topics include the introduction of penetrant testing, penetrant processing, testing methods, inspection and evaluation of indications, and relevant standards and codes. (3-1-0-3)

**NDT 108, Magnetic Particle Inspection** (Credit: 3) (Prerequisite/Corequisite: IFC 100) This course is designed to instruct students in the basic principles and practices of magnetic particle inspection. Topics include principles and characteristics of magnets and magnetic fields, the effect of discontinuities in materials, selection of methods, magnetization by electric current, inspection of materials, principles of demagnetization, types of discontinuities, test indications and interpretations, and the use of equipment. (3-1-0-3)

**NDT 109, Radiation Safety** (Credit: 4) (Prerequisite: Program admission) This course is designed to provide the student with a thorough knowledge and demonstrable skills in the practices of radiation safety. Emphasis will be placed on proper use, storage, transportation, safety requirements, and duties of Radiation Safety Officers. Topics include an introduction to radiation safety, fundamental properties of matter, radioactive materials, types of radiation, practical radiation safety, exposure devices, state and federal regulations, and operating and emergency procedures. (4-0-1-4)

**NDT 110, Radiographic Inspection I** (Credit: 4) (Prerequisite/Corequisite: IFC 100) This course introduces the student to the process and elements of radiographic inspection. Topics include basic radiographic physics, techniques, equipment operation and emergency instructions, film quality and manufacturing processes, and radiographic evaluation and interpretation. (4-1-0-4)

**NDT 111, Radiographic Inspection II** (Credit: 4) (Corequisite: NDT 110) This course is designed to continue the instruction in the knowledge and skills introduced in Radiographic Inspection I. Topics include film quality and manufacturing processes and radiographic evaluation and interpretation. (4-1-0-4)

**NDT 112, Ultrasonic Inspection I** (Credit: 4) (Prerequisite/Corequisite: IFC 100) This course is designed to introduce ultrasonic inspection methods and procedures to a Level I standard. Topics include a brief history and application, principles of acoustics, basic testing and calibration methods such as longitudinal shear wave, introduction to angle beam calibration and testing, straight beam examination, Snells' Law, and the equipment necessary for ultrasonic inspection and testing. (4-1-0-4)

**NDT 113, Ultrasonic Inspection II** (Credit: 4) (Corequisite: NDT 112) This course is designed to continue the study in the previous course on ultrasonic inspection. Topics include the evaluation of base-material

product forms, evaluation of weldments, evaluation of bonded structures, discontinuity detection, and the evaluation of comparison procedures and object appraisal. (4-1-0-4)

**NPT 112, Medical Surgical Nursing Practicum I** (Credit: 7) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NSG 112) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of nursing care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance, and prevention of illness in the cardiovascular system; nursing care, treatment, pharmacology, and diet therapy of the cardiovascular system; health management and maintenance, and prevention of illness in the respiratory system; nursing care, treatment, pharmacology, and diet therapy of the respiratory system; health management and maintenance, and prevention of illness in the endocrine system; nursing care, treatment, pharmacology, and diet therapy of the endocrine system; health management and maintenance, and prevention of illness in the urinary system; nursing care, treatment, pharmacology, and diet therapy of the urinary system; health management and maintenance, and prevention of illness in the gastrointestinal system; nursing care, treatment, pharmacology, and diet therapy of the gastrointestinal system; deviations from the normal state of health; and universal precautions. (0-0-21-7)

**NPT 113, Medical Surgical Nursing Practicum II** (Credit: 7) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NSG 113) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of nursing care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance, and prevention of illness in the musculoskeletal system; nursing care, treatment, pharmacology, and diet therapy of the musculoskeletal system; health management and maintenance, and prevention of illness in the neurological system; nursing care, treatment, pharmacology, and diet therapy of the neurological system; health management and maintenance, and prevention of illness in the sensory system; nursing care, treatment, pharmacology, and diet therapy of the sensory system; health management and maintenance, and prevention of illness in the integumentary system; nursing care, treatment, pharmacology, and diet therapy of the integumentary system; health management and maintenance, and prevention of illness in the mental health client; nursing care, treatment, pharmacology, and diet therapy of the mental health client; health management and maintenance, and prevention of illness in the oncology client; nursing care, treatment, pharmacology, and diet therapy of the oncology client; deviations from the normal state of health; and universal precautions. (0-0-21-7)

**NPT 212, Pediatric Nursing Practicum** (Credit: 2) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisites: NPT 213, NSG 213 and NSG 212) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include: health management and maintenance, and prevention of illness in the pediatric client; nursing care, treatment, pharmacology, and diet therapy of the pediatric client; growth and development; deviations from the normal state of health; and universal precautions. (0-0-6-2)

**NPT 213, Obstetrical Nursing Practicum** (Credit: 3) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisites: NPT 212, NSG 213 and NSG 212) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include: health management and maintenance, and prevention of illness in the

reproductive system; nursing care, treatment, pharmacology, and diet therapy of the reproductive system; health management and maintenance, and prevention of illness in the obstetric client; nursing care, treatment, pharmacology, and diet therapy of the obstetric client; health management and maintenance, and prevention of illness in the newborn; nursing care, treatment, pharmacology, and diet therapy of the newborn; deviations from the normal state of health; and universal precautions. (0-0-9-3)

**NPT 215, Nursing Leadership Practicum** (Credit: 2) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NSG 215) Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of nursing process skills, critical thinking skills, supervision skills, client education skills, group and other TQM skills, and conflict resolution skills. (0-0-7-2)

**NSG 110, Nursing Fundamentals** (Credit: 10) (Prerequisites: AHS 101, AHS 104, ENG 191, MAT 101 and PSY 101) An introduction to the nursing process. Topics include: orientation to the profession, community health, client care, geriatrics, customer/client relationship, introduction to physical assessment, deviation from the normal state of health, and universal precautions. (5-6-6-10)

**NSG 112, Medical Surgical Nursing I** (Credit: 9) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NPT 112) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of nursing care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness in the cardiovascular system; nursing care, treatment, pharmacology, and diet therapy of the cardiovascular system; health management and maintenance and prevention of illness in the respiratory system; nursing care, treatment, pharmacology, and diet therapy of the respiratory system; health management and maintenance and prevention of illness in the endocrine system; nursing care, treatment, pharmacology, and diet therapy of the endocrine system; health management and maintenance and prevention of illness in the urinary system; nursing care, treatment, pharmacology, and diet therapy of the urinary system; health management and maintenance and prevention of illness in the gastrointestinal system; nursing care, treatment, pharmacology, and diet therapy of the gastrointestinal system; medication administration; deviations from the normal state of health; and universal precautions. (9-0-0-9)

**NSG 113, Medical Surgical Nursing II** (Credit: 9) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NPT 113) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of nursing care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness in the musculoskeletal system; nursing care, treatment, pharmacology, and diet therapy of the musculoskeletal system; health management and maintenance and prevention of illness in the neurological system; nursing care, treatment, pharmacology, and diet therapy of the neurological system; health management and maintenance and prevention of illness in the sensory system; nursing care, treatment, pharmacology, and diet therapy of the sensory system; health management and maintenance and prevention of illness in the integumentary system; nursing care, treatment, pharmacology, and diet therapy of the integumentary system; health management and maintenance and prevention of illness in the mental health client; nursing care, treatment, pharmacology, and diet therapy of the mental health client; health management and maintenance and prevention of illness in the oncology client; and nursing care, treatment, pharmacology, and diet therapy of the oncology client;

medication administration; deviations from the normal state of health; and universal precautions. (9-0-0-9)

**NSG 212, Pediatric Nursing** (Credit: 5) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisites: NPT 213, NPT 212 and NSG 213) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include: health management and maintenance and prevention of illness in the pediatric client; nursing care, treatment, pharmacology, and diet therapy of the pediatric client; growth and development; medication administration; deviations from the normal state of health; and universal precautions. (5-0-0-5)

**NSG 213, Obstetrical Nursing** (Credit: 5) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisites: NPT 213, NPT 212 and NSG 212) Focuses on health management and maintenance, and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include: health management and maintenance and prevention of illness in the reproductive system; nursing care, treatment, pharmacology, and diet therapy of the reproductive system; health management and maintenance and prevention of illness in the obstetric client; nursing care, treatment, pharmacology, and diet therapy of the obstetric client; health management and maintenance and prevention of illness in the newborn; nursing care, treatment, pharmacology, and diet therapy of the newborn; medication administration; deviations from the normal state of health; and universal precautions. (5-0-0-5)

**NSG 215, Nursing Leadership** (Credit: 2) (Prerequisites: AHS 102, AHS 103, AHS 109 and NSG 110; Corequisite: NPT 215) Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of nursing process skills, critical thinking skills, supervision skills, client education skills, group and other TQM skills, and conflict resolution skills. (2-0-0-2)

**PCT 106, Patient Care Technician I** (Credit: 7) Introduces a grouping of fundamental principles, practices, and skills common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: terminology related to the human anatomy, blood/air borne pathogen, infection control/RT OSHA Guidelines, specialization nursing skills, and foley catheterization/colostomy care. (5-4-0-7)

**PCT 110, Patient Care Technician II** (Credit: 7) (Prerequisite: PCT 106) Introduces a grouping of fundamental principles, practices, and skills common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: principles of I.V. therapy techniques, venipuncture, principles of radiology and radiology safety and electrocardiograms. (5-4-0-7)

**PCT 115, Patient Care Practicum** (Credit: 2) (Prerequisites/Corequisites: PCT 106 and PCT 110) Focuses on skills common to many specializations in the patient care health profession. The definition of patient care includes using the skills of nursing practice and applying fundamental client care principles in a simulated clinical environment. Topics include: demonstrating specialized nursing skills, I.V. therapy techniques, venipuncture procedures and electrocardiogram procedures. (0-0-6-2)

**PHL 103, Introduction to Venipuncture** (Credit: 4) (Prerequisites/Corequisites: AHS 101, AHS 109, and SCT 100 or AHS 109) Provides an introduction to blood collecting techniques and processing specimens. Emphasis is placed on the skills needed to collect all types of blood samples from hospitalized patients.

**PHL 105, Clinical Procedures** (Credit: 8) (Prerequisite/Corequisite: PHL 103) Provides work experience in a clinical setting. Emphasis placed on enhancing skills in venipuncture techniques.

**PHY 1110 (PHY 190), Introductory Physics (formerly PHY 190)** (Credit: 5) (Prerequisite: MAT 1101 or 1111, and ENG 1101, both with a C or better) The course is an introduction to some of the basic laws of physics. Topics include: systems of units and conversion of units; vector algebra; Newtonian mechanics; fluids and thermodynamics; heat; light, and optics; mechanical waves; electricity and magnetism; and modern physics. Laboratory experience supports classroom learning. Computer use is an integral part of class and laboratory assignments. (4-0-3-5)

**PHY 1111 (PHY 191), Mechanics (formerly PHY 191)** (Credit: 5) (Prerequisites: MAT 1112 or MAT 1113, and ENG 1101, both with a C or better) The first course of three algebra and trigonometry based courses in the physics sequence. This course introduces the classical theories of mechanics. Topics include: measurements and systems of units; Newton's laws; work energy, and power; momentum and collisions; one and two dimensional motion; circular motion and law of gravity; and rotational dynamics and mechanical equilibrium. Laboratory exercises supplement class work. Computer use is an integral part of class and laboratory assignments. (4-0-3-5)

**PHY 1112 (PHY 192), Electricity and Magnetism (formerly PHY 192)** (Credit: 5) (Prerequisite: PHY 1111) The second of three algebra and trigonometry based courses in the physics sequence. This course introduces theories of electricity and magnetism. Topics include: electric charge, forces, and fields; electric potential, energy, and capacitance; magnetism; electric current, resistance, and basic electric circuits; alternating current circuits; and electromagnetic waves. Laboratory exercises supplement class work. Computer use is an integral part of class and laboratory assignments. (4-0-3-5)

**PHY 1113 (PHY 291), Fluids, Heat, Sound and Light (formerly PHY 291)** (Credit: 5) (Prerequisite: PHY 1111) The third of three algebra and trigonometry based courses in the physics sequence. This course introduces the classical theories of fluids, heat, sound, and light. Topics include: statics and dynamics of fluids; gas laws; heat transfer; thermodynamics; harmonic motion; wave motion; sound; and properties of light. Laboratory exercises supplement class work. Computer use is an integral part of class and laboratory assignments. (4-0-3-5)

**POL 1101, American Government** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides a survey of government and politics in the United States. The focus of the course will provide an overview of the Constitutional foundations of the American political processes with a focus on government institutions and political procedures. The course will examine the constitutional framework, federalism, civil liberties, and civil rights, public opinion, the media, special interest groups, political parties, and the election process along with the three branches of government. Topics include foundations of government, political behavior, and governing institutions. (5-0-0-5)

**PSE 100, Introduction to PowerSports Equipment and Maintenance Theory** (Credit: 4)  
Introduces the basic concepts and practices necessary for safe and effective powersports repair shop operation. Topics include: safety procedures; shop organization, shop management; and work flow

systems. Emphasis is placed on all major systems and the interrelationship with subsystems. The course also covers basic maintenance and inspection procedures for the various types of systems used on powersports equipment. (3-0-3-4)

**PSE 105, PowerSports Equipment Applied Basic Maintenance** (Credit: 3) (Prerequisite/Corequisite: PSE 100) PSE 105 is a continuation of PSE 100. It takes the maintenance procedures in PSE 100 and adds practice and technique to the procedures. The course will include, but is not limited to: chain adjustment and maintenance, drive belt maintenance, final drive maintenance, tire removal and replacement, wheel maintenance, front and rear suspension maintenance, cable and control maintenance, and jet pump design. (1-0-5-3)

**PSE 120, PowerSports Equipment Engine Principles of Operation and Repair** (Credit: 5) (Prerequisite: PSE 100; Corequisite: PSE 105) Introduces powersports engine theory and engine repair. Engine inspection, testing, and diagnostic procedures are emphasized. Topics include the general diagnosis and repair of all major engine components and related systems. (3-0-5-5)

**PSE 122, PowerSports Equipment Electrical and Electronic Systems Operation and Repair** (Credit: 5) (Prerequisite/Corequisite: PSE 100) Introduces the fundamentals and basic operation of powersports equipment electrical systems. Topics include: basic D.C. electrical system diagnosis and repair, lighting systems, instruments, and all major safety related electrical systems and components. (3-0-5-5)

**PSE 124, PowerSports Equipment Starting and Charging Systems** (Credit: 3) (Prerequisite: PSE 100 and PSE 122; Corequisite: PSE 105 and PSE 122) Introduces the design and operating principles of batteries, starting systems, charging systems, and related electrical components used on powersports equipment. Topics include battery diagnosis and service; starting system diagnosis and repair; and charging system diagnosis and repair. (2-0-3-3)

**PSE 130, PowerSports Equipment Chassis, Suspension, Tires, Wheels, and Brakes** (Credit: 4) (Prerequisites/Corequisites: PSE 100 and PSE 105) Introduces powersports equipment chassis design and repair, suspension design and repair, tire and wheel service, and watercraft steering. Topics include but are not limited to: wheel truing, wheel lacing, wheel and tire balancing, tire inspection, tire repair, tire replacement, chassis alignment, and watercraft steering system operation. (3-0-3-4)

**PSE 140, PowerSports Equipment Electronic Engine Control Systems** (Credit: 3) (Prerequisites/Corequisites: PSE 100, PSE 120 and PSE 122) Introduces the fundamentals and the basic operation of electronic control systems found in engine management systems, antilock brake systems, and electronically controlled accessory systems. Topics include: computerized controls diagnosis and repair, scanner types and usage, and oscilloscope use in component troubleshooting. (2-0-3-3)

**PSE 142, PowerSports Equipment Fuel, Ignition, and Emission Systems** (Credit: 5) (Prerequisites/Corequisites: PSE 100, PSE 120 and PSE 122) Introduces powersports vehicle fuel, ignition, and emissions systems theory, diagnosis, service, and repair. Topics include, but are not limited to, the theory, diagnosis, service, and repair of: carburetors, fuel injection systems, ignition systems, air induction systems, and positive crankcase ventilation systems. (3-0-5-5)

**PSE 144, PowerSports Equipment Performance Review** (Credit: 4) (Prerequisites: PSE 100, PSE 105, PSE 120, PSE 122, PSE 124, PSE 140 and PSE 142; Corequisites: PSE 140 and PSE 142) PowerSports



Equipment capstone class. This course builds on key areas of all prior PSE classes and serves as an exit course for those completing the program. Emphasis is placed on accurate diagnosis and repair of all major systems. (3-0-3-4)

**PSE 220, Powersports Equipment Technology Internship** (Credit: 6) (Prerequisites: PSE 100 and PSE 105) Provides student work experience in the occupational environment. Topics include: application of powersports technology knowledge and skills, appropriate employability skills, problem solving, adaptability to job setting, progressive productivity, and acceptable job performance. (0-0-18-6)

**PSY 1010 (PSY 101), Basic Psychology** (Credit: 5) (Prerequisite: Provisional admission) Presents the basic principles of human behavior and their application to everyday life and work. Topics include: introduction to psychology; social environments; communications and group processes; personality; emotions and motives; conflicts, stress, and anxiety; perception and learning; life span development; and abnormal psychology. (5-0-0-5)

**PSY 1101 (PSY 191), Introduction to Psychology** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Emphasizes the basics of psychology. Topics include: science of psychology; social environments; life stages; physiology and behavior; personality; emotions and motives; conflicts, stress, and anxiety; abnormal behavior; and perception, learning, and intelligence. (5-0-0-5)

**PSY 1150 (PSY 192), Industrial / Organizational Psychology** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Provides instruction in, and discussion of a wide range of activities related to interpersonal and managerial skills required in today's business and industry. Topics include: an overview of industrial/organizational psychology; principles of human resources management; psychological testing; performance appraisal; training and professional development of employees; principles of leadership; motivational factors, workplace conditions; safety and health; and workplace stressors. (5-0-0-5)

**PSY 2103 (PSY 291), Human Development** (Credit: 5) (Prerequisite: Grade of C or better in PSY 1101) Surveys the changes that occur during the human life cycle beginning with conception and continuing through late adulthood and death. The scientific basis of our knowledge of human growth and development and the interactive forces of nature and nurture are emphasized. Topics include theories; research methods; nature and nurture; physical development: prenatal development, birth, infancy, childhood, adolescence, adulthood, aging, and death; cognitive development: learning, perception, and language development; and social development: temperament, emotions, personality, attachment, parenting and family relationships. (5-0-0-5)

**PSY 2250 (PSY 201), Abnormal Psychology** (Credit: 5) (Prerequisite: PSY 1101) Studies the nature and causes of various forms of behavior disorder. Topics include: types of abnormalities; psychopathology; assessment and classification of mental disorders; symptomatology of major mental disorders; and critical evaluation of current theories. (5-0-0-5)

**PTA 101, Introduction to Physical Therapy** (Credit: 3) (Prerequisite: Program admission) This course provides an explanation of the philosophy and history of the physical therapy profession and its relationship to other health care agencies and providers. Topics include: introduction to the American Physical Therapy Association; development of the American Physical Therapy Association; medico legal aspects and professional ethics; and communication skills. (2-0-3-3)

**PTA 102, Orientation to Physical Therapy and Patient Care Techniques** (Credit: 3) (Prerequisite: PTA 101) Facilitates the adaptation of psycho-social principles in the development of self-understanding and communication with patients, families, the public, and other health teams. Develops skills in telephone etiquette, scheduling patients, patient charges, explanation of methods of reimbursement, importance of incidence report, draping patients, body mechanics, transfers, and vital signs. Topics include: documentation; basic administrative skills; teaching and learning principles; and basic patient care skills. (2-0-3-3)

**PTA 103, Functional Anatomy and Kinesiology** (Credit: 5) (Prerequisites: BIO 2113, BIO 2114, PHY 1110, PTA 101 and PTA 102; Corequisite: PTA 202) Introduces the phenomenon of human motion. Topics include: introduction to motion; survey of the skeletal system; articular system; muscular system; nervous system; muscle attachments; and muscle functions and innervations. Also, includes instruction in goniometric measurements. (3-2-3-5)

**PTA 104, Physical Therapist Assistant Procedures I** (Credit: 4) (Prerequisite/Corequisite: PTA 102) Introduces the basic principles and applications of various physical therapy modalities and treatment techniques. Topics include: bandaging; medical asepsis; and hydrotherapy. (2-0-6-4)

**PTA 201, Pathology I** (Credit: 5) (Prerequisites: PTA 103 and PTA 104; Corequisites: PTA 202 and PTA 203) Surveys injuries and diseases commonly treated by physical therapist assistants. Emphasizes recognizing and responding to acute changes in patient's physiological status as well as orthopedic and medical conditions. Topics include: recognition of acute physiological status change; recognition of acute orthopedic conditions; recognition of acute medical conditions; response procedures for acute physiological status change; response procedures for acute changes in orthopedic conditions; and response procedures for acute changes in medical conditions. (2-4-3-5)

**PTA 202, Therapeutic Exercise I** (Credit: 4) (Prerequisites: PTA 103 and PTA 104; Corequisites: PTA 201 and PTA 203) Provides instruction related to the physiological effects of exercise. Emphasizes demonstration and practice of common therapeutic exercises for neck, shoulder, arm, hand, back, hip, knee, ankle, and foot; daily living training; and gait training skills and techniques. Topics include: therapeutic exercises; daily living training; and gait training. (1-4-3-4)

**PTA 203, Physical Therapist Procedures II** (Credit: 4) (Prerequisites: PTA 103 and PTA 104; Corequisites: PTA 201 and PTA 202) Presents the principles and applications of various therapeutic modalities. Topics include: cervical and lumbar traction; shortwave diathermies; ultraviolet; infrared; ultrasound; introduction to transcutaneous electrical nerve stimulation (TENS); and basic splinting and splint application. (1-4-3-4)

**PTA 204, Clinical Practicum I** (Credit: 5) (Prerequisites: PTA 201, PTA 202 and PTA 203) Provides clinical experience under the supervision of a registered physical therapist and/or registered physical therapist assistant in local health care facilities to observe and practice skills learned in class and laboratory sessions. Topics include: patient preparation; treatment area preparation; equipment preparation; goniometric measurements; vital signs; transfers/body mechanics; therapeutic heat and cold; sterile techniques; interpersonal communication skills; note writing; and treatment modification. (0-0-15-5)

**PTA 205, Pathology II** (Credit: 5) (Prerequisites: PTA 201, PTA 202, PTA 203 and PTA 204; Corequisites: PTA 206 and PTA 209) Surveys a variety of diseases commonly treated by physical therapist assistants with emphasis on neurological conditions. Deals with adjustments to physical and psycho-social aspects of illness and injury. Topics include: review of neurology; neurological disorders and diseases; traumatic head injury; spinal cord injuries and peripheral nerve injuries; tumors; respiratory system; circulatory systems disorders; and endocrine disorders. (2-4-3-5)

**PTA 206, Therapeutic Exercise II** (Credit: 4) (Prerequisites: PTA 201, PTA 202, PTA 203 and PTA 204; Corequisites: PTA 206 and PTA 209) Emphasizes rehabilitation techniques and neurophysiological approaches to treatment. Topics include: neurological rehabilitation; spinal rehabilitation; amputees; prosthetics; and orthotics. (1-4-3-4)

**PTA 207, Physical Therapist Assistant Procedures III** (Credit: 4) Provides detailed discussion and practice in electrotherapeutic modalities and TENS. Topics include: electrotherapeutic modalities; hyperbaric oxygen; peripheral vascular compression apparatus; and peripheral vascular compression garments. (1-4-3-4)

**PTA 209, Kinesiology II** (Credit: 5) (Prerequisites: PTA 201, PTA 202, PTA 203 and PTA 204; Corequisites: PTA 205 and PTA 206) Continued study of the phenomenon of human motion as initiated in PTA 103 Kinesiology I. Topics include: review of muscle attachments, actions, and innervations; specific manual muscle testing techniques; posture and equilibrium; normal and abnormal gait; and advanced gait training skills and techniques. (3-2-3-5)

**PTA 210, Therapeutic Exercise II** (Credit: 4) (Prerequisites: PTA 205, PTA 206 and PTA 209) (Corequisites: PTA 207 and PTA 211) Presents therapeutic exercise as it relates to children. Topics include: developmental sequences and primitive reflexes; cardiac rehabilitation; and chest physical therapy techniques. (1-2-6-4)

**PTA 211, Clinical Practicum II** (Credit: 6) (Prerequisites: PTA 205, PTA 206 and PTA 209) (Corequisites: PTA 207 and PTA 210) Provides for additional experience in health care facilities to observe and practice skills under supervision. Topics include: therapeutic exercises; stroke rehabilitation; NDT techniques; PNF techniques; spinal cord injury rehabilitation techniques; amputee rehabilitation; identifying architectural barriers; TENS applications; performance of specific manual muscle testing, gait analysis, and postural analysis. (0-0-18-6)

**PTA 212, Clinical Practicum III** (Credit: 10) (Prerequisites: PTA 207, PTA 210 and PTA 211; Corequisites: PTA 213) Provides an opportunity to practice physical therapy skills under supervision. Topics include: peripheral vascular compression; therapeutic electrical stimulation; cardiac rehabilitation techniques; pulmonary techniques; pediatric NDT and various adaptive devices for children; and note writing and scheduling skills improvement. (0-0-30-10)

**PTA 213, Seminal for Physical Therapist Assistants** (Credit: 2) (Prerequisites: PTA 207, PTA 210 and PTA 211; Corequisite: PTA 212) Provides preparation and review for state board examinations. Topics include: presentation of a case report, a treatment, or a procedure; how to write a resume'; and review for State Board examinations. (1-2-0-2)

**RAD 101, Introduction to Radiology** (Credit: 5) (Prerequisite: Program admission level reading and math competency) Provides the student with an overview of radiography and patient care. Students will be

oriented to the radiographic profession as a whole. Emphasis will be placed on patient care with consideration of both physical and psychological conditions. Topics include: ethics, medical and legal considerations, "Right to Know Law," professionalism, basic principles of radiation protection, basic principles of exposure, equipment introduction, health care delivery systems, hospital and departmental organization, hospital and technical college affiliation, medical emergencies, pharmacology/contrast agents/media, OR and mobile procedures patient preparation, death and dying, and body mechanics/transportation. (4-2-0-5)

**RAD 103, Body Trunk and Upper Extremity Procedures** (Credit: 3) (Prerequisites: AHS 101 and RAD 101 [Diploma only]; BIO 193, BIO 194 and RAD 101 [Degree only]) Introduces the knowledge required to perform radiographic procedures applicable to the human anatomy. Emphasis will be placed on the production of quality radiographs, and laboratory experience will demonstrate the application of theoretical principles and concepts. Topics include: procedures, anatomy, and topographical anatomy related to body cavities, bony thorax, upper extremities, and the shoulder girdle; and anatomy and routine projections of the bony thorax. (2-0-3-3)

**RAD 106, Lower Extremity and Spine Procedure** (Credit: 3) (Prerequisites: RAD 101 [Diploma only]; RAD 101, BIO 193 and BIO 194 [Degree only]) Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the lower extremities; anatomy and routine projections of the pelvic girdle; and anatomy and routine projections of the spine. (2-0-3-3)

**RAD 107, Principles of Radiographic Exposure I** (Credit: 4) (Prerequisite: RAD 101) Introduces knowledge of the factors that govern and influence the production of the radiographic image on radiographic film. Laboratory experiences will demonstrate applications of theoretical principles and concepts. Emphasis will be placed on knowledge and techniques required to process radiographic film. Topics include: radiographic density; radiographic contrast; recorded detail; distortion; exposure latitude; film holders and intensifying screens; processing area considerations; chemicals, handling and storage of film; characteristics of films utilized in radiographic procedures; automatic processor; artifacts; silver recovery; processing quality assurance concepts; state and federal regulations; and basic principles of digital imaging. (3-0-3-4)

**RAD 109, Contrast Procedures** (Credit: 3) (Prerequisite: RAD 101) Continues development of the knowledge and skill required prior to execution of radiographic procedures in the clinical setting. Topics include: gastrointestinal (GI) procedures; genitourinary (GU) procedures; biliary system procedures; sterile techniques; minor procedures; and sectional anatomy of the neck, thorax, and abdomen. (2-2-0-3)

**RAD 113, Cranium Procedures** (Credit: 2) (Prerequisite: RAD 109) This course continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine cranial radiography; anatomy and routine facial radiography; and sectional anatomy of the head. (1-2-0-2)

**RAD 116, Principles of Radiographic Procedures II** (Credit: 3) (Prerequisite: RAD 107) This course continues to develop knowledge of the factors that govern and influence the production of the radiographic image on radiographic film and digital image acquisition. Topics include: beam limiting devices; beam filtration; scattered/secondary radiation; control of the remnant beam; technique formation; and exposure calculations. (3-0-0-3)

**RAD 117, Radiographic Imaging Equipment** (Credit: 4) (Prerequisites: RAD 116 [Diploma]; RAD 116 and SCT 100 [Degree]) Provides knowledge of equipment routinely utilized to produce diagnostic images. Various recording media and techniques are discussed. Topics include: radiographic equipment; image intensified fluoroscopy; recording media and techniques; image noise; other imaging equipment; digital imaging/PACS; monitoring and maintenance; and state and federal regulations. (3-0-3-4)

**RAD 119, Radiographic Pathology and Medical Terminology** (Credit: 3) (Prerequisites: AHS 101 [Diploma]; RAD 101, BIO 193 and BIO 194 [Degree]) Provides the student with an introduction to the concepts of disease. Pathology and disease as they relate to various radiographic procedures are discussed. Topics include: pathology fundamentals; trauma/physical injury; systemic classification of disease; and medical terminology. (3-0-0-3)

**RAD 120, Principles of Radiation Biology and Protection** (Credit: 5) (Prerequisite: Program admission level competency in Math and English [Diploma]; Program admission level competency in Math, English and Biology [Degree]) Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy, radiation/cell interaction; and effects of radiation. (5-0-0-5)

**RAD 123, Radiologic Science** (Credit: 5) (Prerequisite: MAT 103 [Diploma]; MAT 191 or MAT 190 [Degree]) Introduces the concepts of basic physics and emphasizes the fundamentals of x-ray generating equipment. Topics include: atomic structure; structure of matter; magnetism and electromagnetism; electrodynamics; control of high voltage and rectification; x-ray tubes; x-ray circuits; and production and characteristics of radiation. (5-0-0-5)

**RAD 126, Radiologic Technology Review** (Credit: 4) (Prerequisites/Corequisites: TAD 134 and RAD 138) Provides a review of basic knowledge from previous courses and helps the student prepare for national certification examinations for radiographers. Topics include: image production and evaluation; radiographic procedures; anatomy, physiology, pathology, and terminology; equipment operation and quality control; radiation protection; and patient care and education. (4-0-0-4)

**RAD 132, Clinical Radiography I** (Credit: 5) (Prerequisite: Program admission; Prerequisite/Corequisite: RAD 103 or RAD 108) Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: orientation to hospital areas and procedures; orientation to mobile/surgery; orientation to radiography and fluoroscopy; participation in and/or observation of procedures related to body cavities, the shoulder girdle, and upper extremities. Activities of students are under direct supervision. (0-2-12-5)

**RAD 133, Clinical Radiography II** (Credit: 7) (Prerequisites: RAD 101 and RAD 132) Continues introductory student learning experiences in the hospital setting. Topics include: equipment utilization; exposure techniques; participation in and/or observation of routine projections of the lower extremities, pelvic girdle, spine, and bony thorax; and participation in and/or observation of procedures related to the gastrointestinal (GI), genitourinary (GU), and biliary systems. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-0-21-7)

**RAD 134, Clinical Radiography III** (Credit: 7) (Prerequisite: RAD 101) Provides students with continued hospital setting work experience. Students improve skills in executing procedures introduced in Radiographic Procedures and practiced in previous clinicals. Topics include: equipment utilization; exposure techniques; participation in and/or observation of gastrointestinal (GI), genitourinary (GU), and biliary system procedures; and participation in and/or observation of cranial and facial radiography. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-0-21-7)

**RAD 135, Clinical Radiography IV** (Credit: 7) (Prerequisite: RAD 101) Provides students with continued hospital setting work experience. Students continue to develop proficiency in executing procedures introduced in Radiographic Procedures. Topics include: patient care; behavioral and social competencies; sterile techniques; participation in and/or observation of minor special procedures, special equipment use, and genitourinary system procedures; and participation in and/or observation of cranial and facial radiography. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-0-21-7)

**RAD 136, Clinical Radiography V** (Credit: 7) (Prerequisite: RAD 135) Provides students with continued hospital setting work experience. Students demonstrate increased proficiency levels in skills introduced in Radiographic Procedures and practiced in previous clinical radiography courses. Topics include: advanced radiographic anatomy; equipment utilization; exposure techniques; sterile techniques; participation in and/or observation of angiographic, interventional, minor special, and special genitourinary system procedures; participation in and/or observation of special equipment use; patient care; and behavioral and social competency. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-0-21-7)

**RAD 137, Clinical Radiography VI** (Credit: 10) (Prerequisites/Corequisites: RAD 120 and RAD 136) Provides a hospital setting in which students continue to develop proficiency levels in skills introduced in previous Radiographic courses and practiced in previous clinical radiography courses. Topics include: patient care; behavioral and social competency; equipment utilization; exposure techniques; and participation in and/or observation of routine and special radiographic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-4-24-10)

**RAD 138, Clinical Radiography VII** (Credit: 10) (Prerequisite: RAD 137) Provides a culminating hospital setting work experience which allows the students to synthesize information and procedural instruction provided throughout the program. Topics include: patient care; behavioral and social competency; equipment utilization; exposure techniques; participation in and/or observation of routine and special radiographic procedures; and final completion of all required clinical competencies. Execution of radiographic procedures will be conducted under direct and indirect supervision. (0-4-24-10)

**RDG 096, Reading II** (Credit: 5 I.C.) (Prerequisite: RDG 095, or entrance reading score in accordance with approved TCSG admission score levels) A college preparatory Learning Support course which incorporates phonics and emphasizes the strengthening of fundamental reading competencies. Topics covered include vocabulary development, comprehension skills, study skills, and occupational/survival reading. Students must have a C (score of 70 or better) in the class in order to pass. (5-0-0-5I.C.)

**RDG 097, Reading III** (Credit: 5 I.C.) (Prerequisite: RDG 096, or entrance reading score in accordance with approved TCSG admission score levels)) A college preparatory Learning Support course which emphasizes vocabulary, comprehension, and critical reading skills development. Topics include vocabulary skills, comprehension skills, critical reading skills, study skills, and content area reading skills.

Reading III is a skills-based reading course designed to help students learn to read effectively in a variety of contexts. Online lab required. Students must have a C (score of 70 or better) in the class and on a required reading skills departmental final exam in order to pass the class. (5-0-0-5I.C.)

**RDG 098, Reading IV** (Credit 5 I.C.) (Prerequisite: RDG 097, or entrance reading score in accordance with approved TCSG admission score levels) A college preparatory Learning Support class which provides instruction in vocabulary development, comprehension skills, study skills, and content area reading skills, with an increased emphasis on critical reading skills. Reading IV prepares students for college-level reading. Online lab required. Students must attain a minimum score of 70 in the class and pass the required Compass Exit Exam to complete the class successfully. (5-0-0-5I.C.)

**RLM 201, Introduction to Recreation Management** (Credit: 5) (Prerequisite: Provisional admission) Review of the sociological, philosophical, economic, and historical aspects of recreation and leisure. An introduction to recreation as a profession, and the investigation of contemporary issues in recreation and leisure. (5-0-0-5)

**RLM 205, Recreational Program Leadership** (Credit: 5) (Prerequisite: Provisional admission) An introduction to leadership techniques and theory as it relates to direct leadership of recreation activities. Development of skills for organizing and leading specific recreation activities, including cooperative games and group initiatives. (5-0-0-5)

**RLM 213, Program Planning in Recreation** (Credit: 5) (Prerequisite: Provisional admission) This course provides practical knowledge and experiences in the essential elements and design concepts of program planning. Emphasis is placed on student involvement in planning and directing programs for diverse populations in a variety of physical settings. (5-0-0-5)

**RLM 215, Operation and Management of Recreation Areas** (Credit: 5) (Prerequisite: Provisional admission) Covers the efficient operation and management of swimming pools, spas, and other aquatic facilities and the introduction to many aspects of maintaining parks and outdoor recreation areas. (5-0-0-5)

**RLM 217, Recreational Management Internship** (Credit: 10) (Prerequisite: Program Director approval) Internship in an approved recreation business or agency site. (2-0-18-10)

**SCT 100, Introduction to Microcomputers** (Credit: 3) (Prerequisite: Provisional admission) Introduces the fundamental concepts and operations necessary to use microcomputers. Emphasis is placed on basic functions and familiarity with computer use. Topics include: computer terminology, introduction to the Windows environment, introduction to networking, introduction to word processing, introduction to spreadsheets, introduction to databases, and introduction to presentations. (1-4-0-3)

**SOC 1101 (SOC 191), Introduction to Sociology** (Credit: 5) (Prerequisite: Minimum degree level writing and reading ASSET/COMPASS test scores) Explores the sociological analysis of society, its culture, and structure. Sociology is presented as a science with emphasis placed on its methodology and theoretical foundations. Topics include: basic sociological concepts; socialization; social interaction and culture; social groups and institutions; deviance and social control; social stratification; social change; and marriage and family. (5-0-0-5)

**SPC 1101 (SPC 191), Public Speaking** (Credit: 5) (Prerequisite: ENG 1101 with a C or better) Introduces the fundamentals of oral communication. Topics include selection and organization of materials; preparation and delivery of individual and group presentations; analysis of ideas presented by others; and professionalism. (5-0-0-5)

**SPM 201, Sport Management** (Credit: 5) (Prerequisite: Provisional admission) This course provides an overview of basic knowledge areas for the successful sport manager. Fundamental sport management principles and key skills as well as information on current issues are emphasized. (5-0-0-5)

**SPM 202, Facility and Event Management** (Credit: 5) (Prerequisite: Provisional admission) This course provides students with the fundamental and essential knowledge of successful facility and event management. Topics include: Safety and health hazards and risks, risk management, how to successfully and efficiently operate a facility, recruiting and managing personnel and volunteers, crowd control/management, facility planning, developing and implementing contingency plans, sponsorships, and career opportunities in facility management. (5-0-0-5)

**SPM 203, Legal Issues in Sport** (Credit: 5) (Prerequisite: Provisional admission) This course is designed to introduce sport management students to the legal principles involved in sport settings. First, the topic of tort liability, including intentional tort, negligence, and product liability will be explored. The development of a risk management plan will be given attention. Contracts in sport will be examined. Constitutional law issues will be discussed, particularly as they relate to athletic eligibility, athletes' rights, gender discrimination in sports, and drug testing. In addition, applications of the various elements of these legal aspects to the sport manager will be presented and analyzed. (5-0-0-5)

**SPM 205, Sport Marketing** (Credit: 5) (Prerequisite: Provisional admission) An analysis of essential marketing, promotion and sales principles as currently applied in the sport and recreation industries. Guidelines for formulating marketing goals and strategies, inclusive of target marketing, will be included. The marketing mix will be evaluated in terms of specific applications set in both industry segments. Trends, issues and problems influencing the industry will also be examined. Covers principles of salesmanship, sales techniques, sales strategies and evaluation of sales performance in light of sales plan goals and objectives. (5-0-0-5)

**SPM 207, Social Issues in Sport** (Credit: 5) (Prerequisite: Provisional admission) This course examines the implications sport has on society. The students will study why we study sport, what impact society has on sport, participation rates, history and evolution of sport media, gender, race, and ethnicity issues in sport, Title IX legislation and its implications, youth sport, globalization of modern sport, U.S. influence on international sport, history and current status of Olympic games and Olympic movement, and the role of coaches in sport. (5-0-0-5)

**SPM 209, Financial Management of Sport** (Credit: 5) (Prerequisite: Provisional admission) This course analyzes all relevant aspects of finance relating to the sport and recreation industry. Topics include: basic accounting principles, financial statements, revenue sources for sport and recreation organizations, budget controlling and development, financial aspects of facilities management, current financial status of sport industry, concessions and merchandising, sponsorships, and fund-raising fundamentals. (5-0-0-5)

**SPM 211, Economics of Sport** (Credit: 5) (Prerequisite: Provisional admission) This course examines the economic aspects and impact of the sport and recreation field. Topics include: basic economic analysis,



supply, demand, and pricing in the sport and recreation industry, markets in the sport industry, oligopolistic markets in sport, types of delivery of sport, impact of sport on our economy, labor markets in sport, regulation of sport, antitrust issues in sport, international economic implications of sport, and the future direction of the sport industry.

(5-0-0-5)

**SUR 101, Introduction to Surgical Technology** (Credit: 6) (Prerequisite: Program admission; Corequisites: SUR 108 and 109 ) Provides an overview of the Surgical Technology profession, and develops the fundamental concepts and principles necessary to successfully participate on a surgical team. Topics include: orientation to Surgical Technology, asepsis and the surgical environment, basic instrumentation and equipment, principles of the sterilization process, and the application of sterilization principles. (5-2-0-6)

**SUR 102, Principles of Surgical Technology** (Credit: 5) (Prerequisites: SUR 101,108, and 109; Corequisites: SUR 110 and 112) Provides continued study of surgical team participation by introducing basic case preparation/procedures and creation/maintenance of the sterile field. Topics include: basic case preparation and procedures, creation and maintenance of the sterile field, surgical supplies and accessory equipment, wound management, principles of surgery, minimal invasive surgery, and outpatient surgical procedures. (4-3-0-5)

**SUR 108, Surgical Microbiology** (Credit: 3) (Prerequisite: Program admission; Corequisites: SUR 101 and 109) Introduces the fundamentals of surgical microbiology. Topics include: historical development of microbiology, cell structure and theory, microbial function, human and pathogen relationships, infectious process, bloodborne and airborne pathogens, defense microorganisms, infection control, and principles of microbial control and destruction. (3-0-0-3)

**SUR 109, Surgical Patient Care** (Credit: 3) (Prerequisite: Program admission; Corequisites: SUR 101 and 108) Introduces a complex diversity of surgical patients. Topics include: physiological diversities and needs, special patient needs, preoperative routine, intraoperative patient care, surgical emergencies, documentation and assessment skills, postoperative patient care, and care of the caregiver. (2-2-0-3)

**SUR 110, Surgical Pharmacology** (Credit: 3) (Prerequisites: SUR 101, 108, and 109; Corequisites: SUR 102 and 112) Introduces the fundamentals of intraoperative pharmacology, and emphasizes concepts of anesthesia administration. Topics include: weights and measurements, drug conversions, interpretation of drug orders, legal aspects of drug administration, intraoperative pharmacologic agents, and anesthesia fundamentals. (2-2-0-3)

**SUR 112, Introductory Surgical Practicum** (Credit: 7) (Prerequisites: Program admission, SUR 101, 108, and 109; Corequisites: SUR 102 and 110) Orients students to the clinical environment, and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; basic instrumentation; and environmental sanitation. (0-0-21-7)

**SUR 203, Surgical Procedures I** (Credit: 6) (Prerequisites: SUR 102, 110, and 112; Corequisite: SUR 213) Continues introduction to surgical procedures, incisions, wound closure, operative pathology, and common complications as applied to general and specialty surgery. Topics include: general surgery and special techniques, obstetrical and gynecological surgery, gastrointestinal surgery, genitourinary surgery, head and neck surgery, and plastic and reconstructive surgery. (5-2-0-6)

**SUR 204, Surgical Procedures II** (Credit: 6) (Prerequisites: SUR 203, and 213; Corequisites: SUR 214 and 224) Continues development of student knowledge and skills applicable to specialty surgery areas. Topics include: ophthalmic surgery, orthopedic surgery, thoracic surgery, vascular surgery, cardiovascular surgery, and neurosurgery. (5-2-0-6)

**SUR 213, Specialty Surgical Practicum** (Credit: 8) (Prerequisites: SUR 102, 110, and 112; Corequisite: SUR 203) Emphasis is placed on routine procedures for general and specialty surgery. Students continue to demonstrate increased knowledge and advanced participation through the clinical experience. Topics include: aseptic technique, case preparation, application of surgical anatomy, surgical team employability skills, and demonstration of employability skills. (0-0-24-8)

**SUR 214, Advanced Specialty Surgical Practicum** (Credit: 8) (Prerequisites: SUR 203, and 213; Corequisites: SUR 204 and 224) Provides opportunity for students to complete all required Surgical Technology procedures through active participation in surgery in the clinical setting. Topics include: primary scrub on specialty surgical procedures; participation as a surgical team conducting ophthalmic, orthopedic, thoracic, vascular, cardiovascular, and neurosurgery procedures; independent case preparation and implementation of intraoperative skills; and demonstration of employability skills. (0-0-24-8)

**SUR 224, Seminar in Surgical Technology** (Credit: 3) (Prerequisites: SUR 203 and 213; Corequisites: SUR 204 and 214) Prepares students for entry into careers as surgical technologists, and enables them to effectively review for the national certification examination. Topics include: professional preparation, certification review, and test-taking skills. (3-0-0-3)

**VCM 121, Introduction to Computer Graphics** (Credit: 3) Introduces fundamental concepts and operation necessary to use microcomputer graphic software and hardware. Emphasis is placed on basic functions and familiarity with computer use. Topics include: computer terminology, introduction to the Windows environment and/or introduction to the Mac environment, introduction to file management, file formats, image resolution, fonts and font management, printers, scanners and digital cameras and cross-platforming. (1-4-0-3)

**VCM 124, Drawing** (Credit: 4) Introduces the beginning student to drawing skills, concepts, and media including pencil, charcoal, ink, pastel, and tempera paint. Topics include: basic forms, proportions (figure), perspective, drawing techniques, and safety in the studio. (2-2-3-4)

**VCM 127, Design I** (Credit: 4) Introduces the elements of design and the fundamentals of basic design theory. Topics include: design elements, design principles, color theory, composition, and thumbnail sketches. (2-2-3-4)

**VCM 130, Publication Design** (Credit: 4) (Prerequisites: VCM 121 and VCM 127) Provides application of fundamental design techniques in the layout and production of graphic publications layout. Visualization progresses from the concept state to the final comprehensive layout. Topics include: choice of type, document formatting, use of color, important text and graphics, operation of document layout software. (2-2-3-4)

**VCM 133, Typography** (Credit: 4) Provides a study of type as it relates to design communication. The student is acquainted with letter styles, characteristics, and derivatives. Emphasis is placed on the

importance of type as an element of advertising design. Topics include: history of type, type characteristics, type styles, tools and techniques. (3-2-0-4)

**VCM 136, Digital Photo Editing** (Credit: 4) (Prerequisites: VCM 121, VCM 124 and VCM 127) Provides hands-on experience with major photo editing software. Topics include: digital input (scanners, digital cameras), resolution, color modes, layering and masking, input levels, filter, retouching, and special effects. (2-2-3-4)

**VCM 139, Photography** (Credit: 5) Introduces the basic principles of photography generation and manipulation. Students will learn the basic techniques to correctly expose and develop black and white negative film and black and white prints. Topics include: darkroom safety, film development, paper development, camera introduction, composition, and lighting. (2-4-3-5)

**VCM 201, Vector Drawing** (Credit: 4) (Prerequisites: VCM 130 and VCM 133; Corequisites: VCM 136) Provides hands-on experience with major vector-based computer illustration software. Topics include: terminology, layering, application of color fills and blends, textures and patterning, conversion of fonts to paths, illustration, and exporting file formats and their applications for all printed media. (2-2-3-4)

**VCM 204, Advertising Layout and Design** (Credit: 4) (Prerequisites: VCM 130 and VCM 133; Corequisites: VCM 136) Introduces the preparation of art/photography for printing in newspapers and magazines. Topics include: terminology, file preparation and troubleshooting, and paper selections. (2-2-3-4)

**VCM 213, Printing and Print Production** (Credit: 4) (Prerequisites: VCM 201 and VCM 204) Provides an overview of computer hardware and software applications in the printing industry. Emphasizes mechanical production techniques for color printing processes, historical perspective, and terminology. Topics include: collection for output terminology, digital file preparation and troubleshooting, understanding the printing process, and understanding color modes. (3-2-0-4)

**VCM 216, Print Portfolio** (Credit: 4) (Prerequisites/Corequisites: VCM 210 and VCM 213) Provides an opportunity to tie the graphic applications together. Focus is on design and production of various types of printed media. Emphasizes production of advertising, collateral materials, newsletters, direct mail, and posters. Topics include: print media, collateral, and direct mail. Incorporates digital photography and vector illustration with page layout programs. (2-2-3-4)

**VCM 221, Presentation Design** (Credit: 4) (Prerequisites: VCM 130, VCM 133 and VCM 136) Introduces techniques and methods of slide show production and presentation. Topics include: scripts, storyboards, titles, sound, audience analysis, production and presentation. (2-2-3-4)

**VCM 224, Web Graphics** (Credit: 4) (Prerequisites: VCM 130, VCM 133 and VCM 136) Emphasizes the creation of web-ready graphics using image-editing software. Topics include: compression, file formats, rollover states, transparency, background tiles, and image levels. (2-2-3-4)

**VCM 227, Introduction to Web Design** (Credit: 4) (Prerequisites: VCM 130, VCM 133 and VCM 136) Provides a study of web page design. Topics include: history of the Internet terminology, using web page applications, site planning, navigation, plug-ins, and special effects.

(2-2-3-4)

**VCM 230, Web Animation** (Credit: 4) (Prerequisites: VCM 130, VCM 133 and VCM 136) Introduction to animated sound and image files and their application to the Internet. Topics include: storyboarding, frames, timing, motion, file formats, exporting files, scripts, animating text, and layering their applications for all printed media consistencies, paper selection, printing problems and advanced software features. (2-2-3-4)

**VCM 233, Advanced Web Design** (Credit: 4) (Prerequisites: VCM 224 and VCM 227) Provides a further application of design and marketing skills. Topics include: incorporating animation to websites, incorporating sound with websites, advanced interface design, advanced special effects. (2-2-3-4)

**VCM 236, Audio/Visual Portfolio** (Credit: 4) (Prerequisites/Corequisites: VCM 230 and VCM 233) Provides an opportunity to tie the multimedia applications together. Focus is on design and production of various types of interactive media. Emphasizes production of slide shows, web development, interactive programs, and animation. (2-2-3-4)

**VCM 240, Portfolio/Presentation Exit Review** (Credit: 3) (Prerequisites/Corequisites: VCM 230 and VCM 233) Provides an opportunity to prepare marketing strategies and materials, to revise and develop portfolio presentations, and to benefit from industry review before entering job market. Topics include: understanding portfolio variations, interviewing skills, self promotion, marketing, and self editing. (1-4-0-3)

**WLD 100, Introduction to Welding Technology** (Credit: 6) (Prerequisite: Program admission) Provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. (4-4-0-6)

**WLD 101, Oxyfuel Cutting** (Credit: 4) (Prerequisite: WLD 100) Introduces fundamental principles, safety practices, equipment, and techniques necessary for metal heating and oxyfuel cutting. Topics include: metal heating and cutting principles, safety procedures, use of cutting torches and apparatus, metal heating techniques, metal cutting techniques, manual and automatic oxyfuel cutting techniques, and oxyfuel pipe cutting. Practice in the laboratory is provided. (2-2-4-4)

**WLD 103, Blueprint Reading I** (Credit: 3) (Prerequisite: WLD 100) Introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. Topics include basic lines, sketches, basic views, notes and specifications, dimensions, structural shapes, isometrics, sectional views, joint design, and detail and assembly prints. (1-4-0-3)

**WLD 104, Shielded Metal Arc Welding I** (Credit: 6) (Prerequisite: WLD 100) Introduces the fundamental theory, safety practices, equipment, and techniques required for shielded metal arc welding (SMAW) in the flat position. Qualification tests, flat position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices; SMAW theory; basic electrical principles; introduction to SMAW machines; equipment setup; identification and selections of low hydrogen, mild steel, and other common electrodes; joint design; selection and preparation of materials; and production of beads and joints in the flat position. (3-4-3-6)

**WLD 105, Shielded Metal Arc Welding II** (Credit: 6) (Prerequisite: WLD 104) Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the horizontal position. Qualification tests, horizontal position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes to produce specification welds; horizontal joints; and uses of low hydrogen, mild steel, and other common electrodes in horizontal position welding. (3-4-3-6)

**WLD 106, Shielded Metal Arc Welding III** (Credit: 6) (Prerequisite: WLD 104) Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the vertical position. Qualification tests, vertical position, are used in the evaluation of student progress toward making industrial standard welds. Topics include vertical SMAW safety and health practices, selection and applications of electrodes for vertical SMAW, vertical SMAW joints, and vertical SMAW to specification. (3-4-3-6)

**WLD 107, Shielded Metal Arc Welding IV** (Credit: 6) (Prerequisite: WLD 104) Introduces theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the overhead position. Qualification tests, overhead position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes for specific welds; overhead joints; and applications of low hydrogen, mild steel, and other common electrodes in overhead position welding. (3-4-3-6)

**WLD 108, Blueprint Reading II** (Credit: 3) (Prerequisite: WLD 103) Emphasizes welding symbols and definitions the engineer or designer uses to communicate. Welding symbols are considered an integral part of blueprint reading for the welder. Topics include weld symbols and abbreviations; basic joints for weldment fabrication; fillet welds, groove welds; back or backing and melt-through welds; plug and slot weld; surfacing weld; flash weld and upset weld; and flanges, spot, projection and seam welds. (1-4-0-3)

**WLD 109, Gas Metal Arc Welding (GMAW/MIG)** (Credit: 6) (Prerequisite: WLD 100) Provides knowledge of theory, safety practices, equipment, and techniques for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds. Topics include GMAW safety and health practices; GMAW theory; machines and set-up; wire specifications; joint design/shielding gases; and production of GMAW beads, bead patterns, and joints in all positions. (3-4-3-6)

**WLD 110, Gas Tungsten Arc Welding (GTAW/TIG)** (Credit: 4) (Prerequisite: WLD 100) Provides knowledge of theory, safety practices, inert gas, equipment, and techniques for successful gas tungsten arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making industrial standard welds. Topics include safety and health practices; metals weldable using GTAW; shielding gases; metal cleaning procedures; GTAW machines and equipment set-up; selection of filler rods; GTAW weld positions; and production of GTAW beads, bead patterns, and joints in all positions. (2-2-3-4)

**WLD 112, Preparation for Industrial Qualification** (Credit: 4) (Prerequisite: WLD 101, WLD 105, WLD 106, WLD 107, WLD 108, WLD 109, and WLD 110) Introduces industrial qualification methods, procedures, and requirements. Students are prepared to meet the qualification criteria of selected

national welding codes and standards. Topics include qualification test methods and procedures; codes and standards; fillet and groove weld test specimens, and national industrial student preparation for qualification and job entry. (2-0-6-4)

**WLD 150, Advanced Gas Tungsten Arc Welding** (Credit: 5) (Prerequisite: WLD 110) Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful advanced gas tungsten arc welding (GTAW). Qualification tests, all positions, are used in the evaluation of student progress toward making advanced level industrial standard welds. Topics include GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and equipment set up; selection of filler rods; GTAW weld positions; and advanced production of GTAW beads, bead patterns, and joints. (2-2-6-5)

**WLD 154, Plasma Cutting** (Credit: 5) (Prerequisites: WLD 100 and WLD 101) Provides knowledge of theory, safety practices, equipment, and techniques required for plasma cutting. Topics include: safety practices; plasma torch and theory; plasma machine set up and operation; and plasma cutting techniques. (4-0-3-5)

**WLD 156, Ornamental Iron Works** (Credit: 5) (Prerequisite: WLD 100) Provides an introduction to ornamental ironworks with emphasis on safety practices, equipment and ornamental ironwork techniques. Topics include: introduction to ornamental ironworks and safety practices; use of scroll machine, and use of bar twister. (2-2-6-5)

**WLD 160, Welding and Joining Internship** (Credit: 5) Provides additional skills application in an industrial setting through a cooperative agreement among industry, the Welding Joining Technology program, and the student to furnish employment in a variety of welding occupations. Emphasizes student opportunities to practice welding skills in a "hands on" situation and to work in an industrial environment under the supervision of a master welding technician. Supplements and complements the courses taught in the Welding and Joining Technology program. Topics include: application of welding and joining skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance. (0-0-15-5)

## FACULTY

*Note: The date in parenthesis after each name indicates the beginning year of employment.*

**Maria Abercrombie (2008), Early Childhood Care and Education;** M.A., Concordia University; B.S., Mercer University

**Ed Abrasley (2005), Home Technology Integration;** B.S., Iowa State University

**Ali Afshar (1989), Automotive Technology;** M.S., Pittsburg State University; B.S., Pittsburg State University

**Nathan Akins (2007), Accounting;** M.B.A., Keller Graduate School of Management ( DeVry University); M.B.A./Global Management, University of Phoenix; B.A.S., Clayton State University; A.A.T., Chattahoochee Technical College

**Elizabeth Anderson (2008), Mathematics;** M.S., Alabama State University, 2004; B.S., Alabama State University

**Colette Arp (2004), Cosmetology;** Licensed Georgia Cosmetology Instructor.

**Don Auensen (2005), Librarian, Marietta Campus;** M.L.S., Syracuse University; B.S., St. Lawrence University

**Linda G. Barrett (1997), Cosmetology;** Georgia State Board Master Cosmetology License; Georgia State Board Cosmetology Teacher's License; Diploma, Chattahoochee Technical College

**Brian Bates (2000) Accounting;** M.B.A. Accounting, Brenau University; B.B.A. Accounting, Kennesaw State University

**Dexter Beck, Jr. (1999), Biology & Chemistry;** D.C., Life Chiropractic College; M.S., Life University; B.S., University of Florida

**Daniel Bell (2007), Automotive Collision Repair;** Diploma, Appalachian Technical College

**Rex Bishop (1997), Environmental Horticulture;** M.B.A., Kennesaw State University; A.A.T, Gwinnett Technical College; A.A., Miami-Dade Community College

**Michael P. Bologna (2000), Culinary Arts;** A.O.S., Culinary Institute of America; C.E.C., American Culinary Federation

**Deborah Boyce (2008), Allied Health Studies;** A.S.N., Kennesaw State University, 1982

**Keith Brooks (1989), English;** M.Ed., Brenau University; B.S., Georgia Southern University

**Sean A. Brumfield (1998), English;** M.A.P.W., B.S., Kennesaw State University

**Tamika Brundidge (2008), Early Childhood Care and Education;** M.A., Central Michigan University, 2003; B.S., Georgia Southern University, 2001

**Deborah Bryant (2007), Medical Assisting;** B.S., Shorter College, 2007; Certified Medical Assistant

**Ginger Burton (2006), Interiors;** B.S., University of Georgia

**David A. Busse (2002), Computer Information Systems;** M.S., Georgia Institute of Technology; B.S., Northern Illinois University

**Penny Cannon (2007), Cosmetology;** Licensed Georgia Cosmetology Instructor; Licensed Georgia Master Cosmetologist

**Frances M. Carlson (1998), Early Childhood Care & Education;** M.A., Concordia University; B.A., North Georgia College

**Susan Carroll (2007), Mathematics;** M.S. University of Alabama-Huntsville; B.S., Kennesaw State University

**Virida Catalano (2008), Early Childhood Care and Education;** M.A., Alameda College and University; B.A., Alameda College and University; B.A., West Virginia State College

**James Chu (2005), Engineering Technology;** M.S.E.E., B.S.E.E., University of South Florida; B.S.M.E., Taiwan Oceanographic Technical Institute

**Linda Clay (1996), English;** M.A., B.A., Georgia State University

**Sara P. Cole (1989), English;** M.Ed., Georgia State University; B.S.Ed., University of Georgia

**Kathy Coleman (2002), Business Administrative Technology;** M. Ed. University of West Georgia; B.S.Ed., Georgia State University

**Deanne D. Collins (2004), Radiography;** M.S., Midwestern State University; B.S., Columbia Southern University; A.H.S., York Technical College

**Brad Cooper (2008), Drafting;** B.S., Georgia Institute of Technology; A.S., Coastal Georgia Community College

**Clint Cooper (2008), HVAC;** Diploma, Heart of Georgia Technical College

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**Eddie Cox (1996), Business Studies;** M.Ed., A.B.J., University of Georgia



**Litha Darshanon-Cummings (2008), Early Childhood Education;** M.S. and B.S. in Human Development and Family Studies, University of Alabama

**Shalanda Dixon (2009), Speech;** M.A., Governors State University; M.Ed. Strayer University; B.S., Eastern Michigan University

**Dan Dooley (1994), Computer Information Systems;** B.S., Kennesaw State College

**Michelle Earley (2009), Business Administrative Technology;** M.S. Administration, Central Michigan University; B.A. Business, Covenant College; A.A.S. Business, Dalton College

**Trey Drawdy (2004), Criminal Justice;** M.Ed. Criminal Justice, Troy State University; B.S. Criminal Justice, Armstrong Atlantic State University; A.S. Criminal Justice, Coastal Georgia Community College

**Pennie Eddy (2006), Accounting;** Masters of Accountancy, West Virginia University; B.B.A., University of Texas

**Ron Enz (2002), CIS;** M.B.A., California State University; B.S.C.S., Purdue University

**Shane Evans (2005), Environmental Horticulture;** B.S.A., University of Georgia; A.A.S., Floyd College; Diploma, North Metro Technical College

**Barbara Evins (2001), English;** M.Ed., University of South Carolina; B.A., Southern Adventist University

**Ian Feinberg (2001), Television Production;** B.A.B.J., University of Georgia

**Shannon Ferdarko (2008), Medical Assisting;** RN/BSN, Penn State University

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**Jeffrey W. Fisher (2008), Librarian, North Metro Campus;** MLIS, University of Tennessee, Knoxville; Ed. Specialist, Tennessee Technological University; B.A., University of Tennessee at Chattanooga

**Gene Freund (2008), Marketing;** MBA, National University; BBA, National University

**Hillary Gallagher-Webster (2005), Culinary Arts;** A.O.S., New England Culinary Institute

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**David German (2008), HVAC**

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**Joseph A. Gunn (2004), Automotive Technology and PowerSports;** M.B.A., B.B.A., Kennesaw State University; ASE Master Technician

**Leigh M. Hall (2006), Systems Librarian, Marietta Campus;** M.S.L.S., Clark Atlanta University; B.A., University of Georgia

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**Tammy Harbin (2007), Allied Health Studies;** A.S., Kennesaw State University

**Adam Hart (2000), Visual Communications;** B.F.A., Rhode Island School of Design

**John Hatfield (1995), Environmental Horticulture;** M.Ed., University of Georgia; B.L.A., University of Georgia

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**Roger Hines (2005), English;** M.S., B.S., University of Southern Mississippi; A.A., East Central Jr. College

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**Stan Sheley (1993), English;** Ph.D., University of Southwestern Louisiana; M.A., Auburn University; B.A., Columbus College;

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**Marcy L. Smith (1996), Early Childhood Care and Education;** Ed.D., University of Georgia; M.S., University of Georgia; B.A., Oglethorpe University

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**John Stump (2007), Industrial Systems Technology;** A.A.S., Ohio University

**Jason M. Tanner (2006), English;** M.A., Saint Louis University; B.A., University of Alabama

**Dave Taylor (2005), Welding and Joining;** B.P.S., Barry University; A.A.S., Caldwell Community College and Technical Institute

**Mimi Taylor (1993), English;** M.A.T., University of North Carolina at Chapel Hill; B.A., High Point University

**Jeff Thomason (1989), Mathematics;** M.Ed., North Georgia College and State University; B.S., Piedmont College

**Barbara Thompson (2001), Mathematics;** M.S., GA Institute of Technology; M.A., B.A., College of New Jersey

**Celnisha Thompson (2004), Speech;** M.A., The Pennsylvania State University; B.A., Clark Atlanta University

**James Townley (2002), TV Production**

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**Stan Whitfield (1991), Electronics Technology;** M.Ed., Georgia State University; Graduate Certificate - Teaching and Training Online, Capella University; B.S.Ed., Georgia State University; A.A., DeKalb College; Diploma in Electronics Technology, Chattahoochee Technical College

**Lorraine Wilderman (1999), Surgical Technology;** B.S.N., Kennesaw State University; A.D.N., West Virginia Northern Community College

**Rebecca Wilke, Adult Education;** B.A., University of North Dakota

**Kathy Wishon (2006), Practical Nursing;** ADN., Kennesaw State University