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The statements set forth in this catalog are for informational purposes only and should not be construed as the basis of a contract between a student and this institution. While every effort has been made to ensure the accuracy of the material stated herein, we reserve the right to change any provision listed in the catalog, including, but not limited to, entrance requirements and admissions procedures, academic requirements for graduation, and various fees and charges without actual notice to individual students. Every effort will be made to keep students advised of such changes.

## Table of Contents

Message from the President	4
College Accreditation Status	5
Program Accreditations	6
Guarantee/ Warranty Statement	7
Statement of Equal Opportunity	8
Statement of Non-Discrimination	9
Mission, Vision, & Values	10
STEM Initiatives	13
Campus Information	15
Academic Calendar	18
Admissions	20
Tuition & Fees	33
Financial Aid	36
Student Affairs	47
Student Conduct, Rights, and Responsibilities	51
Programs	52
Courses	67

## Message from the President



Dr. Tavaréz Holston, President

Thank you for your interest in Georgia Piedmont Technical College! As a learner-centered institution, we are dedicated to cultivating a skilled and qualified workforce for DeKalb, Rockdale, and Newton counties. We fulfill our mission of workforce development by connecting students with experienced faculty members who are both scholars and practitioners in their fields.

Our goal is to create transformative learning experiences for individuals pursuing a high school equivalency, academic credentials (associate degrees, diplomas, or technical certificates), or customized workforce training. Our programs are continuously updated in close collaboration with local business and industry leaders to ensure they meet the evolving needs of the job market. As a result, our graduates are highly sought after by employers.

If you, or someone you know, is looking to enhance your career prospects through education, you've come to the right place. At Georgia Piedmont, we're here to guide you on **The Way Forward**

to a brighter future.

**Dr. Tavaréz Holston**  
President – Georgia Piedmont Technical College



# College Accreditation Status

Georgia Piedmont Technical College is a unit of the [Technical College System of Georgia](#).<sup>82</sup>

Georgia Piedmont Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award technical certificates of credit, diplomas, and associate degrees.

Questions about the accreditation of Georgia Piedmont Technical College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website ([www.sacscoc.org](http://www.sacscoc.org)).

Inquiries such as admission requirements, financial aid, educational programs, etc., should be addressed directly to Georgia Piedmont Technical College and not to the Commission's office. Please direct all questions to:

**Georgia Piedmont Technical College**

495 North Indian Creek Drive  
Clarkston, GA 30021

Phone: [404-297-9522](tel:404-297-9522)<sup>83</sup>

**Air Conditioning Technology**

Partnership for Heating Ventilation Air Conditioning Refrigeration Accreditation (PAHRA). This accreditation is supported by these organizations: Air Conditioning and Refrigeration Institute (ARI), Air Conditioning Contractors of America (ACCA), American Society of Heating, Refrigeration, Air Conditioning Engineers (ASHRAE), Council of Air Conditioning and Refrigeration Educators (CARE), Gas Appliance Manufacturers Association (GAMA), Heating Air Conditioning and Refrigeration Distributors International (HARDI), and Plumbing, Heating, Cooling Contractors (PHCC).

**Basic Law Enforcement**

The Commission on Accreditation for Law Enforcement Agencies, Inc., (CALEA®) The Public Safety Training Academy Accreditation purpose is to promote superior public safety training services and recognize professional excellence. 13575 Heathcote Boulevard, Suite 320 Gainesville, Virginia 20155 (703) 352-4225 FAX (703) 890-3126.  
<http://www.calea.org><sup>94</sup>

**Electrical and Computer Engineering Technology (AAS)**

Accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org)<sup>95</sup>.

**Medical Assisting**

Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)), upon recommendation of the Medical Assisting Education Review Board (MAERB), Commission on Accreditation of Allied Health Education Programs, Commission on Accreditation of Allied health Education Programs, 25400 US Highway 19 North, Ste 158, Clearwater, FL 33763, 727-210-2350.

**Medical Laboratory Technology (AAS)**

The CLT program is accredited by National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N River Rd, Ste 720, Rosemont, IL 60018 • (773) 714- 8880 • [www.naacls.org](http://www.naacls.org)<sup>96</sup>

**Paralegal Studies (AAS)**

American Bar Association Paralegal Education Program Approval  
<https://www.americanbar.org><sup>97</sup>

**Paramedicine (AAS)**

Commission on Accreditation of Allied Health Education Programs (CAAHEP) [www.caahep.org](http://www.caahep.org)<sup>98</sup>, 25400 US Highway 19 North, Suite 158, Clearwater, Florida 33763, Contact at: 727-210-2350.

# Guarantee/ Warranty Statement

## TCSG Guarantee

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee, within two (2) years of graduation, be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

## Georgia Piedmont Technical College Guarantee/ Warranty

To demonstrate confidence in and commitment to quality technical education programs which are relevant, current, and responsive to the stated expectations of Georgia's businesses and industries, the State Board of the Technical College System of Georgia will warrant every graduate from a technical certificate of credit, diploma, or associate degree in a state-governed institute according to the following stipulations:

- The warranty guarantees that the graduate has demonstrated the knowledge and skills and can perform each competency as identified in the industry-validated Standard or Program Guide, and any program graduate who is determined to lack such competence shall be retrained at no cost to the employer or graduate for tuition or instructional fees.
- A claim against the warranty may be filed by either an employer in conjunction with the graduate or a graduate if the graduate cannot perform one (1) or more of the competencies contained in the industry-validated Standard or Program Guide, including failure to pass a State of Georgia licensing examination.
- The warranty will remain in effect for two (2) consecutive years following the date of graduation and will be honored by any state-governed technical college which offers the same program.

To inquire or file a claim under this warranty, instructors or employers may contact the:

Vice President of Academic Affairs  
(404) 297-9522

# Statement of Equal Opportunity

Georgia Piedmont Technical College is committed to the concept of an open- door policy and equal educational opportunity. 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, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical collegeadministered programs, programs financed by the federal government including any Workforce Innovation and Opportunity Act (WIOA) Title I financed programs, educational programs and activities, including admissions, scholarships and loans, student life, and athletics. It also encompasses the recruitment and employment of personnel and contracting for goods and services.

The Technical College System and 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. The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Title	Name & Position	Location	Phone / Email
Title IX Coordinator	Adrian Williams Executive Director of Human Resources	Georgia Piedmont Technical College Building A, Room 157 495 North Indian Creek Drive Clarkston, GA 30021	(404) 297-9522 ext. 1210 <a href="mailto:TitleIXCoordinator@gptc.edu">TitleIXCoordinator@gptc.edu</a>
ADA/Section 504 Coordinator	Dr. Melinda Robinson- Moffett Associate Vice President of Student Affairs	Georgia Piedmont Technical College Building A, Room 170 495 North Indian Creek Drive Clarkston, GA 30021	(404) 297-9522 ext. 1111 <a href="mailto:ADA504Coordinator@gptc.edu">ADA504Coordinator@gptc.edu</a>
EEO Compliance Officer	Adrian Williams Executive Director of Human Resources	Georgia Piedmont Technical College Building A, Room 157 495 North Indian Creek Drive Clarkston, GA 30021	(404) 297-9522 ext. 1210 <a href="mailto:williamsa@gptc.edu">williamsa@gptc.edu</a> Grievance procedures available from the Human Resource Office.
Equity Coordinator	Dr. Melinda Robinson- Moffett Associate Vice President of Student Affairs	Georgia Piedmont Technical College Building A, Room 170 495 North Indian Creek Drive Clarkston, GA 30021	(404) 297-9522 ext. 1111 <a href="mailto:moffettm@gptc.edu">moffettm@gptc.edu</a> Grievance procedures and forms available from the Equity Office.

# Statement of Non-Discrimination

Equal opportunity and decisions based on merit are fundamental values of the Technical College System of Georgia (TCSG). The TCSG State Board prohibits discrimination on the basis of an individual's age, color, disability, genetic information, national origin, race, religion, sex, or veteran status ("protected status"). No individual shall be excluded from participation in, denied the benefits of, or otherwise subjected to unlawful discrimination, harassment, or retaliation under, any TCSG program or activity because of the individual's protected status; nor shall any individual be given preferential treatment because of the individual's protected status, except the preferential treatment may be given on the basis of veteran status when appropriate under federal or state law.

Georgia Piedmont is an equal opportunity employer. All employment processes and decisions, including but not limited to hiring, promotion, and tenure, shall be free of ideological tests, affirmations, and oaths, including diversity statements. The basis and determining factor for such decisions should be that the individual possesses the requisite knowledge, skills, and abilities associated with the role, and is believed to have the ability to successfully perform the essential functions, responsibilities, and duties associated with the position for which the person is being considered. At the core of any such decision is ensuring the institution's ability to achieve its mission and strategic priorities in support of student success.

The following persons have been designated to handle inquiries regarding the non-discrimination policies:

ADA / Section 504 / Equity / Title IX Coordinator  
N. André David  
(404) 297-9522 ext. 1178  
[davidn@gptc.edu](mailto:davidn@gptc.edu)

Please contact your college's Title IX coordinator or Section 504 coordinator listed above, or Josh McKoon at [jmckoon@tcsge.edu](mailto:jmckoon@tcsge.edu) or (404) 679-5972 if you have questions or need clarification.

# Mission, Vision, & Values

Technical education is a vital component of an individual's total learning experience. It is a right for every person who needs it, desires it, and can benefit from it. A continuous process that extends from childhood through adulthood, it is designed to develop work attitudes, marketable skills, and applicable knowledge for employment and business ownership. Technical education also includes awareness and exploration of career choices and specialized training.

There are vocational implications in all education, but technical education is best characterized by its purposes and methods. One purpose is to provide economic benefit to the learner by facilitating preparation for employment or business ownership. Another purpose is to provide economic benefits to the community and the state by increasing productivity. Since people spend the larger part of their lives at some form of work, there could be no nobler goal than to provide an opportunity for individuals to develop the knowledge, skills, and attitudes necessary to secure personally satisfying and socially useful careers that lead to personal economic gain and economic benefits to society as a whole.

## Mission

Georgia Piedmont Technical College, a unit of the Technical College System of Georgia, promotes workforce development within a learner-centered environment through adult education, technical education, and customized business and industry training in DeKalb, Newton, and Rockdale counties. GPTC offers learners the opportunity to enhance, refine, or develop their education, earning associate's degrees, diplomas, or certificates through traditional and distance delivery methods.

## Vision

To create unforgettable learning experiences.

Our vision describes the ideal result of our work. We foster learning among our students and among one another, which makes a positive, lasting impact. If we embrace our values, achieve our goals, and succeed in our mission, our vision will be realized.

## Values

Our values are internally held principles from which our culture stems. Our values guide the attitude and intention with which we approach our work.

### **Learn**

Be teachable. Use knowledge effectively. Challenge others to learn. Recognize the need for change.

### **Serve**

Be mindful of people's needs. Engage positively when interacting. Be forgiving of inconveniences.

### **Lead**

Influence with integrity. Own the work. Respect diversity. Take initiative in developing solutions.

## Strategic Goals

These goals will be the focus of our work throughout the next five years. Divisional, departmental, and individual objectives are aligned to these institution-wide initiatives.

## Goal I: Promote Student Success

In whatever manner students engage with the college, we will build an environment that supports their success.

- Implement instructional best practices to enhance student learning and foster an inclusive learning environment
- Offer educational programs to match the specific needs of the college's service delivery area with a special emphasis on high-demand careers
- Strengthen Adult Education sites
- Develop initiatives to transition students from Adult Education to credit-based programs of study
- Initiate a student-centered completion campaign that encourage full-time enrollment
- Increase student involvement in clubs and organizations
- Improve the quality of distance education courses
- Identify and develop programs that encourage quick, efficient program completion, including distance education offerings
- Evaluate academic program performance to ensure quality, vigor and relevance for the world of work

## Goal II: Foster Engagement

Both internally and externally, we will connect with intention and remain unified in pursuit of our mission.

### Learner-centered Objectives

- Facilitate a responsive, learner-centered culture that promotes learning, service and leadership
- Engage community partners in developing effective and efficient credit and non-credit programs that support students' attainment of relevant skills
- Strengthen relationships with local school districts to create seamless pathways for students

### Employer-centered Objectives

- Conduct needs assessment and offer educational programs that meet workforce demands of the service delivery area
- Deliver high-quality, customized contract training to enhance workforce skills with an emphasis on high-demand career fields

## Community-centered Objectives

- Increase visibility of the college in each county served through social media and targeted outreach activities
- Develop and implement recruitment activities targeted to introduce middle school and high school students to technical education programs with a special emphasis on high-demand careers

## Employee-centered Objectives

- Promote an environment that supports and recognizes learning, service and leadership, for both full-time and part-time employees
- Invest in professional development activities that are inclusive of all employees
- Establish greater opportunities for employees to participate in decision-making processes
- Provide exemplary orientation for all new employees

## Goal III: Strengthen Infrastructure

From physical facilities to processing procedures, we will operate with strength and stability.

- Implement a user-friendly, institutional dashboard for daily, monthly and annual reporting functions
- Implement the 2020-2025 Master Plan
- Identify and pursue funding sources beyond state and federal allocations to include grants, scholarships and charitable donations
- Improve and expand physical facilities to better serve the service delivery area
- Enhance information technology infrastructure to support student learning and operational efficiency
- Enhance Campus Security measures with a special emphasis on staffing, training and leveraging technology



# STEM Initiatives

Georgia Piedmont Technical College (GPTC) is dedicated to preparing highly skilled and capable professionals for careers in STEM and STEM-related fields.

## GPTC STEM Definition

STEM education at GPTC is defined as an interdisciplinary approach to learning that integrates real-world applications through problem- and project-based learning experiences.

## Goals of the STEM Initiatives Department

- Increase enrollment in STEM and STEM-related programs
- Develop effective marketing strategies to enhance program visibility
- Improve the effectiveness of STEM program advisory boards
- Build and strengthen partnerships with community and industry stakeholders
- Expand opportunities for middle and high school students to access STEM education through dual enrollment, joint enrollment, and articulation agreements
- Identify and secure grant funding to support STEM programs and initiatives

## STEM and STEM-Related Programs at GPTC

The following programs (including degrees, diplomas, and technical certificates) are recognized as STEM or STEM-related based on GPTC's STEM definition:

- Computer Information Systems
- Electronics Technology
- Electrical and Computer Engineering Technology
- Computer Graphics and Design/Drafting Technology
- Building Automation Systems
- Criminal Justice Technology
- Paramedicine Technology
- Design and Media Production Technology
- Accounting
- Sustainable Technology Certificate
- Motorcycle Service Technology
- Heating, Ventilation, and Air Conditioning (HVAC) Technology

- Automotive Technology
- Clinical Laboratory Technology
- Ophthalmology Technology
- Practical Nursing
- Cybersecurity
- Mechanical Engineering Technology
- Welding and Joining Technology

# Campus & Information

## DeKalb Campus Information

Address: 495 North Indian Creek Drive, Clarkston, GA 30021

Service	Office	Extension
Academic Administration	Vice President of Academic Affairs	1132
Advising	One Stop Advising	1109
Bookstore	Bookstore	1288
Career Services	Office of Special Services	1183
Chief Executive Officer	President	1281
Drug Prevention Information	Office of Student Activities	1220
Fees & Tuition Payment	Cashier's Office	1249
Finance Office Administration	Vice President of Administrative Services	1861
Financial Aid	Office of Financial Aid	1107
F-1/M-1 Visas	International Student Office	1280
Library Services	Learning Resource Center	1850
Lost & Found	Office of Student Activities	1220
Parking Decals	Campus Police	1700
Program Information	Admissions Office	1602
Scholarships	Foundation Office	1139
Special Population Services	Special Populations/Equity	1309
Student Activities & Voter Registration	Office of Student Activities	1220
Student Affairs Administration	Associate Vice President of Student Affairs	1111
Special Services	Disability Services	1155
Transcripts	Registrar's Office	1257
Testing	Assessment Center	1571
Institutional Advancement	Director for Institutional Effectiveness	1142

## Newton Campus Information

Address: 8100 Bob Williams Parkway, Covington, GA 30014

Service	Office	Extension / Contact
Academic Administration	Vice President of Academic Affairs	1132
Advising	One Stop Advising	3100
Bookstore	Bookstore	3224
Career Services	One Stop Advising	1183
Chief Executive Officer	President	1281
Drug Prevention Information	Office of Student Activities	1220
Fees & Tuition Payment	Cashier's Office	3124
Finance Office Administration	Vice President of Administrative Services	1861
Financial Aid	Office of Financial Aid	1264
F-1/M-1 Visas	International Student Office	1280
Library Services	Learning Resource Center	3212
Lost & Found	Office of Student Activities	1220
Parking Decals	Campus Police	(678) 972-2011
Program Information	One Stop Advising	3100
Scholarships	Foundation Office	1139
Special Population Services	Special Populations/Equity	1309
Student Activities & Voter Registration	Office of Student Activities	1220
Student Affairs Administration	Associate Vice President of Student Affairs	1111
Special Services	Disability Services	1155
Transcripts	Registrar's Office	1257
Testing	Assessment Center	1571
Institutional Advancement	Director for Institutional Effectiveness	1142

## Campus & Center Locations

### DeKalb Campus

495 North Indian Creek Drive Clarkston, GA 30021

**Phone:** (404) 297-9522 ext. 1105

**TDD:** (404) 297-7769

### Paul M. Starnes Center

1085 Montreal Road Clarkston, GA 30021

**Phone:** (404) 297-9522 ext. 2501

### **Newton Campus**

16200 Alcovy Road Covington, GA 30014

**Phone:** (404) 297-9522 ext. 3100

### **Newton D Campus & Conference Center**

8100 Bob Williams Parkway Covington, GA 30014

**Phone:** (404) 297-9522 ext. 5000

### **Regional Transportation Training Center (RTTC)**

6720 Marbut Road Lithonia, GA 30058

**Phone:** (678) 526-7384

### **Rockdale Career Academy Center**

1400 Parker Road Conyers, GA 30094

**Phone:** (770) 761-3092

# Academic Calendar

## Fall Semester 2024

Date(s)	Event
August 12-18	Late Registration / Drop/Add
August 12	Classes Begin
September 1	Payment Deadline
September 2	Holiday - Labor Day
October 7	Accelerated B Session Begins
October 7-9	Accelerated B Drop/Add
November 22	Deadline to Withdraw with Grade of "W"
November 24 - December 1	Holiday - Thanksgiving Break
November 27	Deadline to Withdraw with Grade of "WF"
December 2	Classes End
December 4-7	Final Exams
December 24 - January 1	Semester Break

## Spring Semester 2025

Date(s)	Event
January 13-19	Late Registration / Drop/Add
January 13	Classes Begin
January 20	Holiday - Martin Luther King Jr. Day
February 2	Payment Deadline
February 10	LS Session Begins
March 10	Accelerated B Session Begins
March 30 - April 6	Spring Break
April 24	Deadline to Withdraw with Grade of "W"
April 30	Deadline to Withdraw with Grade of "WF"
May 5	Classes End
May 6-9	Final Exams

## Summer Semester 2025

Date(s)	Event
May 19	Classes Begin
May 19-25	Late Registration / Drop/Add
June 29 - July 6	Summer Break
July 28	Classes End
July 29-31	Final Exams

# Admissions

The Technical College System and 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.

Admission to Georgia Piedmont Technical College is not a guarantee of acceptance to a credit program offering a certificate, diploma, or degree. The admission process encourages students to enter programs where they have a reasonable expectation of success. Admission to specific programs requires that the applicant have adequate educational preparation as measured by satisfactory placement scores on the Scholastic Aptitude Test (SAT), the American College Testing Program (ACT), the Computer Adaptive Placement Assessment and Support Systems (COMPASS), or the Assessment for Skills for Successful Entrance and Transfer (ASSET) Placement Test, or ACCUPLACER. Additional admission requirements as outlined in this Catalog must also be met for specific programs.

Applications are reviewed and processed on a first-come, first-serve basis when the admissions file is complete. A file is considered complete when all transcripts, test scores and any other supporting documentation has been received. Admission decisions are made and applicants are formally accepted when files are complete. Students are notified by email of their acceptance.

## Admission to Georgia Piedmont Technical College is open to:

- High School graduates from regionally accredited or state-approved high schools
- Home-schooled students meeting the appropriate requirements from the Technical College System of Georgia (TSCG) and the Georgia Department of Education
- Persons holding a High School Equivalency Certificate (HSE)
- Transfer students from colleges, universities, and other postsecondary institutions accredited by agencies recognized by Georgia Piedmont Technical College
- Transient students from other colleges and universities
- Dual Enrollment high school students who meet specified admission requirements
- Special Admission or non-degree/diploma seeking students
- Georgia residents 62 years of age or older who qualify under the tuition waiver plan
- Audit students
- Foreign students with an F-1 or M-1 Visa who meet language standards and all admissions requirements of the Department of Homeland Security (DHS.)
- Out-of-school applicants who are 16 years of age or older

## Admission Requirements

Any individual 16 years of age or older who seeks access to quality instruction designed to develop or improve occupational competencies is eligible for admission. The College may waive the "16 years of age" requirement for secondary students who are participating in an articulated program of study.



The entrance requirements and procedures established by Georgia Piedmont Technical College are designed to assist the applicant in making a career decision based on such factors as aptitude, ability, interest, background, assessment results, interviews, and other appropriate evaluation. They follow the guidelines developed by the Technical College System of Georgia and reflect concern for the applicant's health, safety, well-being, and ability to benefit from the educational opportunities available.

Applicants for admission to a certificate/diploma/degree program must have all official documents (transcripts, test scores, etc.) on file in the Office of the Registrar by the admissions application / document deadline date for the semester in which they plan to enroll to be considered for Financial Aid (See Admissions Application / Document Deadline Dates on page 10). Applicants furnishing false, incomplete, or misleading information will be subject to rejection or dismissal without refund.

All credentials submitted become and remain the property of Georgia Piedmont Technical College and will not be returned to the applicant, duplicated, or transferred to another institution. In addition, transcript(s) that precede a potential student's application will only be retained for a period of four (4) months. This applies to SAT, ACT, CPE, COMPASS, ASSET, and ACCUPLACER scores sent from other institutions.

Applicants with acceptable scores on the SAT, ACT, COMPASS, ASSET or previously taken ACCUPLACER tests may submit those results instead of taking the ACCUPLACER placement test at Georgia Piedmont Tech. Information on obtaining SAT or ACT scores may be supplied by a high school counselor. This information can also be obtained for SAT scores by writing the College Entrance Examination Board at P.O. Box 592, Princeton, New Jersey 08541 (the CEEB code for Georgia Piedmont Technical College is 3226). For ACT scores write to ACT Records, P.O. Box 451, Iowa City, Iowa 52243 (the ACT code for Georgia Piedmont Technical College is 0811).

Placement scores required for each program may be obtained in the Office of Admissions.

## Programs with Additional Admission Requirements

### Healthcare programs

Additional admissions requirements may include the following:

- Health forms (dental, physical, immunizations, etc.) obtained at the expense of the applicant.
- Other records of health procedures required by the program or by a related committee.

The additional admissions requirements for Health, Education and Professional Services programs as outlined above will not be requested until the regular admissions process has been completed.

### Early Childhood Care and Education (ECCE)

Programs require fingerprint record checks at the beginning of enrollment in the ECCE program's practicum and internship. A student must receive a satisfactory fingerprint record check prior to the start of the practicum and/or internship (additional information on this requirement may be obtained from the ECCE Faculty Advisor). Please note that a fingerprint record may prevent a student from placement in a childcare center for instructional purposes, which may result in a student's inability to complete the program of study. This information will not become a part of the student's admission file but will be secured within the ECCE Department and will be kept confidential in accordance with the Federal Educational Rights and Privacy Act of 1974 (FERPA).

## EMS and Paramedic Education

Programs have specific admissions and eligibility requirements. All applicants must meet the same entry requirements as students with regular admissions status. In addition, the State Office of EMS requires all applicants to be 18 years of age and a high school graduate or equivalent. Candidates transferring from another EMS Education program or program within Georgia Piedmont Tech must have acceptable English and Math transfer credit as determined by the Office of the Registrar, or minimum placement test scores as required by the specific program for which the candidate is seeking entry. Placement test scores more than five years old will not be accepted and the candidate will be required to sit for the ACCUPLACER before further consideration will be afforded.

## EMS and Paramedic

Programs have additional admissions requirements, which may include the following:

- Health forms (dental, physical, immunizations, etc.) obtained at the expense of the applicant.
- Records of other procedures required by the program or by the appropriate committee (such as criminal records check).

The additional admissions requirements for Health, Education and Professional Services programs as outlined above will not be requested until the regular admissions process has been completed.

## Law Enforcement

This program has additional admissions requirements that may include the following: Thorough Background Investigation, including criminal history, which should show:

- No felony convictions or sufficient misdemeanors showing pattern of disregard for the law; No extensive drug use/abuse;
- Evidence of good moral character. Medical examination.
- Drug screen.
- Must be a minimum of 18 years old. Provide documentation of:
- Proof of High School graduation or GED; Proof of U.S. or naturalized citizenship; Military Service Record (if applicable); Certified Birth Certificate.
- Must have a valid Class 'C' Georgia Driver's License. Uniform and duty gear purchase required.

The additional admissions procedures for the Law Enforcement Academy program as outlined above should be initiated through the program prior to the regular admissions process.

## Paralegal Studies

To register for PARA 1100 - Introduction to Law and Ethics basic course and be admitted into the Paralegal Studies Program at Georgia Piedmont Technical College, the following will be required:

- Completion of ENGL 1101 or equivalent with a minimum grade of 'C.'
- Completion of the Watson-Glaser Critical Thinking Test with a minimum score of 20. A student who fails to score the minimum score may re-take the test the following term (semester) with the maximum number of attempts being three (3).
- Attendance at program orientation and advisement meeting scheduled by the Paralegal Studies faculty.

- As a part of the program orientation and advisement process, students will be advised regarding employment prospects for paralegals with a felony conviction.
- Students enrolled in the Paralegal Studies AAS degree program or Post-Baccalaureate Paralegal Studies Certificate program must complete at least 25 percent of the legal specialty courses required for award of the degree or certificate at Georgia Piedmont Technical College. In addition, each student must complete a minimum of 10 percent of legal specialty courses delivered through traditional classroom instruction. The GPTC Paralegal Studies Program will only accept legal specialty transfer credits from other ABA approved schools. The GPTC Paralegal Studies Program does not award any legal specialty transfer credit through examination or portfolios.

**Unauthorized Practice of Law** - The goal of the Paralegal Studies Program is to train students in legal theory and to improve a student's analytical, communication and practical skills. Paralegals shall not engage in the unauthorized practice of law as proscribed by the Official Code of Georgia § 15-19-51, and must work under the supervision and direction of an attorney in good standing with the State Bar of Georgia.

### Commercial Truck Driving (CDL)

All applicants must meet the same entry requirements as students with Regular Admission status; however, CDL programs have additional admission requirements which may include the following:

- Current Georgia Driver's License.
- CDL Learners Permit obtained at the expense of the applicant.
- DOT Physical and drug test obtained at the expense of the applicant.
- Seven (7) year Motor Vehicle Report (MVR) with less than 6 points.

### Electrical Lineworker Apprentice (ELA)

All applicants must meet the same entry requirements as students with Regular Admission status; however, the ELA program has additional admission requirements which may include the following:

- Current Georgia Driver's License.
- CDL Learners Permit obtained at the expense of the applicant.
- DOT Physical and drug test obtained at the expense of the applicant. Seven (7) year Motor Vehicle Report (MVR) with less than 6 points. Weight requirement - less than 280 lbs.
- No previous knee or leg injuries. Physical demands require no pregnancy.

## General Admission Process

### 1. Submit Application

- **Online:** [Complete the Online Application](#)<sup>99</sup>
- **In-Person or Email:** Download the [Admissions Application \(PDF\)](#)<sup>10</sup> and submit to [admissions@gptc.edu](mailto:admissions@gptc.edu)
- **Application Fee:** \$25 non-refundable (one-time)

## 2. Provide Transcripts

- **High School/GED/HiSET:** Official transcripts or scores; if not in English, include a certified translation.
- **Post-Secondary Institutions:** Official transcripts from all colleges/universities attended; translations required for non-English documents.
- **International Credentials:** Evaluation by a NACES-approved service (e.g., [WES](#)<sup>11</sup>, [Josef Silny](#)<sup>12</sup>); refer to [International Transcripts Information](#)<sup>13</sup> for details.
- **Submission:** Email all documents to [transcripts@gptc.edu](mailto:transcripts@gptc.edu)

## 3. Placement Assessment

- **Accepted Tests:** ACCUPLACER, SAT, ACT, ASSET
- **Purpose:** Determine readiness for program coursework; ACCUPLACER covers English, reading, and math.
- **College Board Code:** 3226
- **More Info:** Visit the [ACCUPLACER Test page](#)<sup>14</sup>

## 4. Verify Lawful Presence (House Bill 87)

Submit one of the following documents to establish lawful presence in the U.S. for in-state tuition eligibility:

- **Driver's License/ID:**
  - Georgia: Issued after Jan 1, 2008
  - Alabama: Issued after Aug 1, 2000
  - Florida: Issued after Jan 1, 2010, with gold star
  - South Carolina: Issued after Nov 1, 2008
  - Tennessee: Issued after May 29, 2004
  - Other states: Valid ID with gold star
- **Certified U.S. Birth Certificate:**
  - Must be hand-delivered or mailed (no photocopies)
  - Order via [VitalChek](#)<sup>15</sup>
- **Other Acceptable Documents:**
  - Approved FAFSA for the current financial aid year
  - Valid Permanent Resident Card (USCIS Form I-151 or I-551)
  - Valid military ID for active duty or veterans
  - U.S. Certificate of Birth Abroad (DS-1350 or FS-240)
  - Current U.S. Passport

- U.S. Certificate of Citizenship (USCIS Form N-560 or N-561)
- U.S. Certificate of Naturalization (USCIS Form N-550 or N-570)

#### Submission Methods:

- All documents (except birth certificates) can be hand-delivered, faxed, mailed, or emailed to the Office of Admissions.
- Certified birth certificates must be hand-delivered or mailed.

## Contact Information

#### Office of Admissions

Georgia Piedmont Technical College  
495 North Indian Creek Drive  
Clarkston, GA 30021

Phone: (404) 297-9522 Ext. 1602

Fax: (404) 298-3617

Email: [admissions@gptc.edu](mailto:admissions@gptc.edu)

## Admission of International Students

Applicants on an F-1 or M-1 visa must follow both the general admissions steps and additional requirements for international students:

### Before You Apply

Arrange housing on your own—GPTC does not provide, supervise, or recommend accommodations. Plan to arrive in metro Atlanta before classes start to secure lodging and attend orientation.

- Complete the application via online, in person, or by email; and pay a \$25 non-refundable fee.
- Provide:
  - Copy of a valid **passport** and **visa**
  - Official transcript evaluations from a **NACES-approved service** (e.g., [WES](#)<sup>11</sup>, [Josef Silny](#)<sup>12</sup>); refer to [International Transcripts Information](#)<sup>13</sup> for details.
    - High school: document-by-document evaluation
    - College: course-by-course evaluation
  - **Proof of English proficiency**
  - **Acceptable test scores** (SAT, ACT, ACCUPLACER, COMPASS)
  - **Affidavit of Support** and **bank statements** showing a minimum of \$20,494 (subject to change)
  - Proof of **health insurance**
  - SEVIS Fee payment receipt
- Pay tuition for 15 credit hours (\$5,697; subject to change).

- Meet with the International Student Advisor before enrollment.

## After Acceptance

GPTC will issue an Acceptance Letter and Form I-20. You must:

- Pay the SEVIS fee and schedule your visa interview.
- Enter the U.S. no earlier than 30 days before the program start date shown on the I-20.
- Report to the ISA and register full-time in the semester listed on the I-20. Missing the start term places you “out of status.”

## Maintaining Status While Enrolled

U.S. immigration regulations require international students to:

- Stay full-time every term; obtain ISA approval before dropping a course.
- Attend classes regularly and meet GPA standards.
- Keep passport, visa, and I-20 documents valid at all times.
  - Notify the ISA at least 60 days before passport or visa expiration to process an extension.
- Abstain from all employment unless expressly authorized.
- Consult the ISA immediately if academic or personal issues threaten enrollment.

GPTC must report status changes or non-compliance to the Department of Homeland Security (DHS).

## Transfers & Program Completion

Transferring in: Meet all GPTC international requirements before an I-20 can be released.

- Program changes or completion: Coordinate with the ISA to update or conclude your SEVIS record properly.

## Key Contacts

### International Student Advisor (ISA)

Georgia Piedmont Technical College – DeKalb Campus

Phone: +1 (404) 297-9522 ext. 1602

Email: [admissions@gptc.edu](mailto:admissions@gptc.edu) (subject line “International Admission”)

## Important Dates

Applicants for admission to credit programs must have all required documentation and credentials (i.e., application, transcripts, test scores) on file in the Office of Admissions by the admission and records application/document deadline date for the semester in which they plan to enroll.

The 2024-2025 Admission Application / Document Deadline Dates are as follows:

- Spring Semester 2025 ----- December 2, 2024
- Summer Semester 2025 --- May 5, 2025

- Fall Semester 2025 ----- July 28, 2025

The admissions policies and procedures of the Technical College System of Georgia and Georgia Piedmont Technical College assure the citizens of Georgia equal access to the opportunity to develop the knowledge, skills, and attitudes necessary for them to secure personally satisfying and socially productive employment. By design and implementation, the policies and procedures governing admissions to Georgia Piedmont Technical College will:

- Be nondiscriminatory for any eligible applicant regardless 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);
- Increase the prospective student's opportunities;
- Guide the implementation of all activities related to admission to Georgia Piedmont Technical College and its programs to student financial aid and to the recruitment, placement, and retention of students; and
- Compliment the academic programs of Georgia Piedmont Technical College.

## Admission Status

Minimum admissions requirements shall be established for each program. Students will be admitted in one of the following categories: **Regular; Provisional; Learning Support; Special; or Transient.**

**Regular Status** - Students who meet all requirements for admission into a selected program and are eligible to take all courses in the program curriculum.

**Provisional Status** - Students who do not meet all requirements for regular admission into a selected program. Provisionally admitted students may take learning support classes and certain specified occupational courses as long as class pre- and co-requisites are satisfied.

**Special Admit Status (Non-credential seeking)** - Applicants who wish to take credit coursework, but are not seeking a certificate, diploma, or associate degree, are granted Special Admit status. The following specifics define the parameters of this status:

May apply up to a maximum of 17 semester credit hours into a specific program for credential-seeking purposes after achieving regular admit status. The number of hours taken as a special admit student in no way waives the requirements of the regular admission process.

May enroll in classes only on a space-available basis.

Should adhere to the specific institutional prerequisite requirements when selecting courses.

Will not be eligible for any financial aid

**Note: F-1/M-1 Visa holders and financial aid recipients may not be assigned to Special Admit status.**

**Transient Status** - Students who submit a Transient Agreement Letter from their home institution are granted Transient admission status. The Transient Agreement Letter should verify that the student is in good standing and list the courses for which the student is eligible to take. A current Transient Agreement Letter is required for each semester of enrollment.

A transient student has been or is regularly enrolled at another institution, who expects to return to that institution, but who desires to enroll temporarily at Georgia Piedmont Technical College. Credit earned at Georgia Piedmont Technical College is not automatically forwarded to the second institution. An official transcript must be requested through the Office of the Registrar. Transient students desiring to continue enrollment as transfer students must reapply for admission and satisfactorily complete all transfer requirements. The applicant for transient status must:

Submit a completed application to the Office of Admissions.

Pay a \$25 non-refundable application fee (check, money order or credit card). This is a one-time fee.

Present a statement with the application from the proper official of the institution last attended giving the student permission to enroll at Georgia Piedmont Technical College. If permission is to be granted for two semesters it must be indicated in the letter of transiency. Otherwise, the transient status must be renewed after the first semester.

Submit with the application written permission from the parent institution stating the course(s) that fit the student's educational objectives and will be accepted by the parent institution.

Present a letter from the parent institution certifying that the parent institution will retain responsibility for the issuance of the I-20 form during the transient semester(s) for International, F-1, and M-1 Visa students.

Students desiring to be transient students from Georgia Piedmont Technical College (home college) to colleges within the Technical College System of Georgia (TCSG) system (host college) must apply for transiency through Georgia Virtual Technical Connection (GVTC) - [www.gvtc.org](http://www.gvtc.org)<sup>16</sup>. Once the application is submitted, it is approved/denied by the Office of the Registrar. An e-mail notification is then sent to the student.

Students desiring to be a Transient student from Georgia Piedmont Technical College (home college) to a College outside the Technical College System of Georgia (TCSG) system must complete and submit a Transient Request Form. The Form is available at the Office of the Registrar.

Once the application is submitted, it is reviewed and approved/denied by the Office of the Registrar. The Transient Letter is mailed to the host college with a copy to the student.

## Requirements to be a Transient Student

- Must be currently enrolled with Regular admission status.
- Must be in good standing
- Must have a 2.0 cumulative grade point average or better
- Must have no financial holds
- Take only a course(s) applicable to your program of study
- Meet all prerequisite/co-requisite course requirements.

For additional information, contact the Office of the Registrar.



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## Required Academic Criteria

### High School/GED Diploma

Admission requires a high school diploma or GED verified by an official transcript showing graduation date and diploma type, unless otherwise specified. Home school applicants have an alternative admission path. Diplomas from unaccredited institutions, certificates of attendance, or special education/transitional diplomas are not accepted. Transcripts from non-U.S. secondary schools may be evaluated for equivalency. Applicants with 30+ semester (or 45 quarter) credit hours with a grade of C or better at accredited colleges may submit those transcripts instead. Accepted diplomas must be from TCSG-approved accredited schools or regulated public schools; graduates of unaccredited high schools must obtain a GED.

### Home School Applicants

Georgia home-schooled applicants not in a recognized, accredited program must submit:

- Certificate of Attendance from local superintendent or Declaration of Intent to homeschool (per O.C.G.A. § 20-2-690), including superintendent's letter confirming intent and monthly attendance reports.
- Annual progress reports or final transcripts covering junior and senior years, including graduation date. Home-schooled applicants outside of Georgia must also submit SAT or ACT scores that meet TCSG minimums. College presidents may waive diploma/GED requirements for certain secondary or GED students.

### Former Students

Students absent for one year or more must submit a new application (no fee for former credit seekers, valid three semesters), meet current catalog requirements, and submit all official postsecondary transcripts earned since last enrollment.

### Beginning Freshmen

Applicants with no prior college credit must submit a completed application with \$25 fee (valid three semesters), official high school transcript or GED scores (with English translation/evaluation for foreign transcripts), and achieve satisfactory scores on SAT, ACT, COMPASS, ACCUPLACER, or ASSET. ACCUPLACER is an adaptive test assessing reading, writing, and math skills to identify learning support needs.

### Assessment/Testing

All diploma, degree, and certificate applicants must be assessed for program readiness via ACCUPLACER or accepted validated tests (SAT, ACT, COMPASS, ASSET) meeting minimum scores. Results are valid for 60 months and transferable within TCSG. College-level English and math (C or better) on transcripts may waive the assessment. Students completing learning support courses with C or better since Fall 2011 are exempt from ACCUPLACER exit exams.

### Transfer Students

Applicants with prior college enrollment must submit an application with \$25 fee, official high school transcript or GED (with translation/evaluation if foreign), and official transcripts from all postsecondary institutions attended (foreign transcripts require approved course-by-course evaluation). They must provide standardized test scores within five years or take ACCUPLACER if required. Transfer credit evaluations occur upon receipt of transcripts. Transfer admission status depends on prior academic standing. Health, Professional Services, and Public Safety programs may have additional requirements.

### Paralegal Studies Transfer

Must complete at least 25% of legal specialty courses at GPTC, including 10% via traditional classroom. Only credits from ABA-approved schools are accepted; no credit via exams or portfolios.

## Transfer Credits

Credit may be awarded for comparable coursework or training if:

- **Student is admitted;**
- Courses taken at accredited institutions;
- Content and credit hours equal or exceed GPTC courses;
- Official sealed transcripts with grade C or higher are on file.

Transfer credits do not affect GPA. Learning Support courses transfer only from other TCSG institutions. Credit appears within 1–3 business days after transcript receipt.

## Transfer Credit from Regionally Accredited Institutions

Normally awarded if prior institution is in good standing.

## Transient Credit

Students enrolled elsewhere may take courses at GPTC with transient form and advisor permission. Courses must be from regionally accredited institutions. Grades transfer as credit without affecting GPA.

## Articulated Credit

Recent Georgia high school graduates (within 24 months) may earn credit for high school coursework with scores of 70% or higher upon submitting a request.

## Exemption Credit

Credit awarded after passing an exam equivalent to the course final exam with instructor approval. Fee is 25% of tuition per credit hour. Requires Course Exemption Form.

## Advanced Placement Credit

Credit granted for CLEP exams per Council recommendations, and for AP or IB exams with scores of 3 or higher in equivalent courses.

## Armed Services Credit

Credit may be awarded for military education/training certified by the American Council on Education, matching GPTC curriculum.

## Prior Learning Assessment

Credit may be granted for industry certifications or professional licenses upon submission of documentation and Registrar approval.

## Residency Requirement

Students must complete at least 25% of curriculum credits at GPTC to earn a credential.

## Dual Enrollment

High school students (grades 9–12) may take courses at GPTC by meeting eligibility, application, and placement requirements. They have freshman status, honors eligibility, and may graduate from GPTC by submitting official high school or GED transcripts.

## Career Pathways

High school students can earn up to 20 hours of articulated college credit through agreements, passing exemption exams (score 80+), and enrolling within 17 months of graduation. Computer applications articulation requires matching software.

## Youth Apprenticeship

Provides articulation between high schools and GPTC with coordinated curricula. Participants must meet admissions requirements.

## Senior Citizen Waiver Students

Georgia residents 62+ may enroll tuition-free on a space-available basis during Drop/Add, excluding certain courses, and pay applicable fees.

## Audit Students

Students may audit most courses with registration, fees, and instructor consent, attending without credit or course requirements. Audit-to-credit changes are not allowed; credit-to-audit changes are permitted mid-semester with instructor approval.

# Residency Requirements

Students are classified into three residency categories that determine tuition rates:

- **In-State Residents:** U.S. residents who qualify as Georgia residents pay in-state tuition and fees.
- **Out-of-State Residents:** U.S. residents who do not qualify pay twice the in-state tuition plus fees.
- **Non-Citizens:** Non-U.S. citizens pay four times the in-state tuition plus fees.

## Residency Determination:

Residency is based on legal domicile in Georgia, established and maintained for at least 12 consecutive months before the semester start. Documentation is required to prove residency.

Students initially classified as non-residents who believe they qualify as residents must file a **Petition for Georgia Residency Classification** with the Office of Admissions **before** the semester begins. Residency status does not change automatically, and petitions for past semesters are not accepted.

## Residency Rules:

- **Independent students** meet residency requirements if they have lived in Georgia for 12 months before classes.
- Temporary absence under 12 months does not affect residency status.
- **Dependent students** qualify if their parent or legal guardian has maintained Georgia domicile for 12 months before classes and either the student graduated from a Georgia high school or is claimed as a dependent on the parent's latest federal tax return.
- If a parent or legal guardian moves out of state after residency is established, the dependent student retains residency status while continuously enrolled at a Technical College.
- Residency cannot be claimed to avoid paying out-of-state tuition.

### **Special Cases:**

- Non-citizens with qualifying federal immigration status (e.g., permanent resident, refugee, asylum) who have maintained a Georgia domicile for 12 months qualify for in-state tuition.
- U.S. military personnel on active duty stationed in Georgia, their dependents living in Georgia, and those domiciled in Georgia but stationed elsewhere pay in-state tuition.
- Military personnel and dependents reassigned outside Georgia who remain continuously enrolled and on active status also pay in-state tuition.

### **Important:**

Students must submit residency petitions with supporting documentation on time to change their status and qualify for in-state tuition.

## Tuition & Fees

Students are responsible for understanding and complying with all regulations and procedures related to the payment of tuition and fees, as well as eligibility for refunds. Lack of awareness or reliance on incorrect information from an advisor or other source will not be accepted as justification for waiving any policy or requirement.

For questions about payment amounts or methods, please contact the Cashier's Office. Questions about refund eligibility should be directed to the Office of the Registrar. Please note that verbal miscommunication does not exempt a student from following established policies.

All fees are due on the day of registration, and registration is not considered complete until full payment has been made. Acceptable payment methods include cash, check, money order, Visa, MasterCard, and Discover.

Tuition and fees are assessed in accordance with the policies of the Technical College System of Georgia and are subject to change without prior notice.

### Tuition

Student Type	Tuition per Credit Hour
Georgia Resident	\$100
Out-of-State U.S. Resident	\$200
Non-Citizen (International Student)	\$400
Commercial Truck Driving Certificate (In-State)	\$132
Law Enforcement Academy (In-State)	\$200

**Note:** Tuition applies to all credit courses. Rates may vary for contract/consortium programs and certain specialty programs.

## Fees (Per Semester Unless Otherwise Noted)

Fee Type	Amount	Notes
Application Fee	\$25	One-time, non-refundable; waived for former credit-seeking students
Registration Fee	\$63	Charged every semester for all credit courses
Late Registration Fee	\$45	Applies if registering after official registration deadline
Activity Fee	\$35	Not charged if student takes only online courses
Technology Fee	\$105	Applies to all credit students
Campus Resources Fee	\$75	Not charged to Continuing Education, seminar, or Dual Enrollment students
Health & Wellness Fee	\$25	Funds campus wellness and prevention services; not insurance
Special Instructional Fee	\$55	Instructional and technology support
Natural Science Lab Fee	\$20	For students enrolled in Biology, Chemistry, or Physics
Learning Support Fee (Math)	\$70	Per math course in learning support
Learning Support Fee (Reading/Eng)	\$45	Per language or reading course in learning support
Graduation Fee	\$40 (one-time)	Required to process graduation for degrees/certificates
Paralegal Program Fee	\$52	Each semester for access to legal research platforms
Liability Insurance Fee	Varies	For selected programs; not covered by HOPE, non-refundable after Drop/Add
Academic Credit by Exam	25% of tuition	Fee required before taking a challenge exam
Program Change Fee	\$10 per request	Not charged if program is closing
Replacement ID Card Fee	\$5	Payable at the Cashier's Office
Transcript (Official Copy)	\$10 per copy	Available online, processed within 48-72 hours
Placement Scores/Acceptance Letter	\$7.50 each	For duplicate copies or to send test scores to another institution

## Miscellaneous Costs

**Specialty Programs:** Certain programs such as Commercial Truck Driving and Law Enforcement have higher tuition rates and additional fees like fuel surcharges (\$185) and drug testing fees (\$127).

**Program-Specific Costs:** Some programs require tools, uniforms, physical exams, or immunizations. These costs range from \$40 to \$1,150 depending on the program. Details are available from the Office of Admissions or Registrar.

**Individual Course Fees:** Some courses may have additional fees for required supplies, ranging from \$10 to \$100 per course.

**Transcript Access:** Unofficial transcripts can be accessed via the student portal. Official transcripts are \$10 each and can be mailed or sent electronically.

**Declined Checks:** Payments by check are verified by a third-party service. If declined, alternate payment methods are required. Questions must be directed to the check service provider.

**Replacement Credentials:** Replacement diplomas, degrees, or certificates of credit may incur a fee (amount not specified).

## Withdrawal and Refund of Student Fees

Students may withdraw from individual courses through Banner Web. However, students who wish to withdraw from all courses must meet with an advisor in person.

To formally withdraw from all classes, students must complete a withdrawal form, obtain a signature from the Financial Aid Office, and submit the form to the Office of the Registrar. The official date of withdrawal is the date the student notifies the college of their intent to withdraw.

Students who do not follow the formal withdrawal process are still responsible for all tuition, fees, and related charges, and will receive a final grade based on their academic performance in the course(s).

In cases of emergency—such as illness, accident, or a death in the immediate family—students should contact the Office of the Registrar as soon as possible. Please note: Initiating a stop payment on a check does not constitute an official withdrawal and does not release the student from financial responsibility.

Outstanding balances, including returned check fees, must be paid in full. Failure to do so will result in a “Business Office Hold” being placed on the student’s record. Students with a hold will not be permitted to register for classes, receive financial aid, or access official transcripts until the balance is cleared.

## Fee Refunds

Students who drop a class during the scheduled Drop-Add/Late Registration period for the semester are eligible for a 100% refund of applicable tuition and refundable fees, excluding the non-refundable application fee.

No refunds will be issued for withdrawals made after the Drop-Add/Late Registration period has ended.

## Financial Aid

Georgia Piedmont Technical College offers financial assistance to help students manage their educational expenses. Aid is available through federal and state grants, work-study programs, and scholarships. To determine eligibility, students must complete the **Free Application for Federal Student Aid (FAFSA)** each academic year at [www.fafsa.gov](http://www.fafsa.gov)<sup>17</sup>. Be sure to include **Federal School Code 016582** to ensure GPTC receives your information.

## Verification Process

**Institutional Responsibility:** If a student's FAFSA is selected for verification, the College is required to collect documentation that confirms specific information reported on the FAFSA, unless the student qualifies for a federal exclusion.

**Student Responsibility:** Students must submit the requested documents by the communicated deadline in order to remain eligible for financial aid.

## Entrance Loan Counseling

The **U.S. Department of Education** mandates that all **first-time borrowers** of subsidized and/or unsubsidized federal loans complete **Entrance Loan Counseling** before receiving loan funds. This counseling explains:

- The Direct Loan process
- Managing education expenses
- Repayment options
- Borrower rights and responsibilities

### Requirements:

- New students with no prior loan history must complete counseling before registering for classes.
- It is recommended that students complete this requirement within 14 days of submitting their application for enrollment.
- Students with a prior loan history who have already completed Entrance Counseling are not required to repeat it, although all borrowers are encouraged to review updated loan information.

To complete the counseling, visit [www.studentloans.gov](http://www.studentloans.gov)<sup>18</sup> and log in using your **FSA ID**. **Documentation Required:** Confirmation of completed counseling from the **COD system** must be on file prior to enrollment.

## Exit Loan Counseling

**Exit Loan Counseling** is required for students who:

- Are preparing to graduate
- Withdraw from the college
- Drop below half-time enrollment



This counseling ensures students understand their repayment responsibilities, loan terms, and financial obligations.

#### Requirements:

- **Graduating students** must complete exit counseling within 30 days prior to graduation.
- **Withdrawn students** must complete counseling or receive exit materials within 30 days of the college determining their withdrawal.
- The **Financial Aid Office** is responsible for verifying that students complete counseling online or, if needed, providing exit materials via email or mail.

To complete counseling, visit [www.studentloans.gov](http://www.studentloans.gov)<sup>18</sup>.

**Documentation Required:** Confirmation from COD, a copy of the counseling letter, or electronic counseling records showing the student's email address.

All documentation must be submitted within the required timelines and must comply with federal regulations. For more details, visit the [FSA Handbook](#)<sup>19</sup>.

## Types of Aid

Georgia Piedmont Technical College (GPTC) offers several types of financial aid to help eligible students cover the cost of education. These include grants and the Federal Work-Study program.

### Federal Pell Grant

The **Federal Pell Grant** is awarded to students enrolled in **Associate Degree**, **Diploma**, or **Basic Law Enforcement Certificate** programs who are eligible based on their **FAFSA** results.

#### Key Information:

- **Eligibility:** Determined by FAFSA results and enrollment status (number of credit hours).
- **Limitations:** Students with a Bachelor's degree (U.S. or foreign equivalent) are not eligible. Federal aid cannot be used for more than **30 attempted hours** of Learning Support coursework.
- **Bookstore Credit:** Pell-eligible students may use a portion of the grant to purchase books if a credit balance remains after tuition and fees are paid.
- **Maximum Award:** For 2018-2019, the max award is **\$6,195** (for full-time students with 0 EFC).
- **Disbursement:** Funds are typically divided between two terms.

#### Year-Round Pell (150% Rule):

Students may receive Pell funds in the **summer** even after full use in fall and spring, provided they:

- Are Pell-eligible,
- Are enrolled at least half-time (6+ credits) for summer,
- Maintain **Satisfactory Academic Progress** (SAP).

## Pell Recalculation Policy:

- **Standard recalculation:** Occurs on the **8th academic day** of the term.
- **Late Start B-term recalculation:** Occurs on the **4th academic day**.
- Only one recalculation applies, based on the last class a student enrolls in and attends.
- **Exceptions:** Include late FAFSA submission or failure to begin attendance.
- Applies to **Pell funds only**.

**Note:** All Pell Grant disbursements count toward the student's **Lifetime Eligibility Used (LEU)** limit.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is a **federal grant** designed for Pell-eligible students with the greatest financial need.

### Requirements:

- Must receive a **Pell Grant**
- Must be a **U.S. citizen or eligible non-citizen**
- Must **not** hold a Bachelor's degree
- **Not** required to be full-time
- Cannot be in high school

### Award Details:

- Up to **\$1,000 per term**, max **\$3,000 per academic year**
- **Availability is limited** and based on annual funding allocations by the U.S. Department of Education
- Funds may be **redistributed** to other eligible students if not used

## Federal Work-Study (FWS) Program

FWS provides part-time campus jobs for eligible students with demonstrated financial need.

### Eligibility Criteria:

- Enrolled in a **Diploma or Degree** program
- Taking at least **6 credit hours**
- Must maintain **SAP**
- Must complete **FAFSA** and have a verified financial aid file
- Must **not** be in default or owe repayment on federal aid

## Application & Hiring:

- Students must apply and complete documentation with the **Office of Financial Aid and Human Resources**
- **Job placement is not guaranteed**
- Students must be cleared before beginning work

## Pay Rates:

- **FWS Assistant:** \$9.00 - \$12.00/hour
- **America Reads Assistant:** \$13.00/hour
- **Pay** is monthly; direct deposit required after the first paycheck

## Work Hours:

- Max **19.5 hours/week**
- Cannot exceed annual FWS award amount
- Students cannot work during scheduled class time or when the college is closed
- Students are **not required to work during finals week**
- **Breaks & Between Terms:** Students may work if funding is available and they're registered

## Managing Hours:

- Students should plan to earn **half of their award each semester**
- Supervisors receive monthly budget reports
- Time sheets must be **submitted monthly**, signed by both student and supervisor
- **Late timesheets** delay payment to the next payroll cycle

## Timesheet Policy:

- Must reflect actual hours worked
- Must not exceed earnings listed in the Supervisor Contract
- Timesheets are due by the **last GPTC business day** of each month
- Supervisors must retain copies for records

## Termination from Work-Study

Students may be terminated if they:

- Are frequently absent or tardy

- Underperform or fail to meet job expectations
- No longer meet **FWS eligibility** (e.g., enrollment changes, SAP failure, or receiving additional aid)

Students also have the option to resign or seek a different position.

**Note:** The **Financial Aid Specialist** is responsible for evaluating eligibility at the end of each term and managing award continuity.

## HOPE Programs

Funded by the Georgia Lottery and administered by the Georgia Student Finance Commission (GSFC), the HOPE (Helping Outstanding Pupils Educationally) Programs support Georgia residents pursuing postsecondary education. Students can track eligibility and usage by logging into [My GAFutures<sup>®20</sup>](#).

### HOPE Grant

- For students enrolled in **certificate or diploma programs**.
- Must be a Georgia resident and U.S. citizen or eligible non-citizen.
- Residency requirement:
  - **12 consecutive months** before term start (if resident at high school/home study/GED completion).
  - **24 consecutive months** if not.
- Covers **\$76 per semester hour** toward tuition at GPTC.
- Tuition is **\$100 per semester hour**, so students cover the difference.
- **Example:** 10 credit hours → HOPE pays \$760, student owes \$240 + \$359 in fees.
- Requires **2.0 GPA** at 30/60-hour checkpoints to remain eligible.
- Maximum coverage is **63 semester hours**.

### Zell Miller Grant

- For students in **certificate or diploma programs**.
- No high school GPA requirement.
- Must maintain a **3.5 GPA** at the end of each term.
- Tuition is covered in full (does **not** cover fees).
- First term is paid retroactively if GPA is met.
- **Example:** 15 credit hours = \$1,500 covered; student pays fees (\$359).

### HOPE Scholarship

- For students in **degree programs**.

- Requires:
  - High school GPA of **3.0 or higher** (HOPE Scholar designation), or
  - Completion of **30, 60, or 90 degree-level credit hours** with 3.0 GPA (retroactive eligibility).
- Not available to students who already hold a bachelor's degree.
- Must maintain **3.0 GPA** at 30/60/90 checkpoints and each Spring semester.
- Covers tuition similarly to HOPE Grant.
- Maximum coverage: **127 semester hours**, including hours covered by the HOPE Grant.

## Zell Miller Scholarship

- Pays **100% of tuition** (up to 15 credit hours) for degree-seeking students.
- Students must graduate:
  - As **Valedictorian or Salutatorian**, or
  - With a **3.7 GPA** and score **1200 SAT** (CR + Math) or **26 ACT** on a single test date.
- Students are responsible for fees.

## Public Safety Memorial Grant

Provides aid to **dependent children** of Georgia public safety officers **disabled or killed in the line of duty**.

### Eligibility:

- U.S. citizen or eligible permanent resident.
- Georgia resident for **12 months** prior to receiving aid.
- Full-time enrollment (12 hours) at an eligible Georgia college.
- Maintain satisfactory academic progress.

### Award Details:

- Covers **total cost of attendance** minus other financial aid.
- Capped at **\$18,000 per academic year**, up to **8 semesters**.
- Awarded on a **first-come, first-served** basis as funding allows.

## Georgia HERO Scholarship

Provides aid to qualifying **military service members, their spouses, and children**.

## Eligible Categories:

- **Service Member:** Georgia National Guard/U.S. Military Reserves; served in combat zone 181+ days (or medically evacuated).
- **Child of Service Member:** Born before or within 9 months of service; under 26 during service.
- **Child of Fallen/Disabled Member:** Killed or 100% disabled in combat zone.
- **Spouse of Fallen/Disabled Member:** Same criteria as Category 3.

## Award Amount:

- Up to **\$2,000/year**, prorated for part-time.
- Up to **\$8,000 total** for four academic years.
- Category 2: \$2,000 per qualifying term (max 4 terms).

## Veterans Educational Services (VA Benefits)

Assistance is available for veterans and eligible dependents through the **Office of Special Services**.

## Getting Started:

- Submit a **Veterans Data Sheet** and documentation (e.g., DD214, Certificate of Eligibility).
- Submit **registration invoice** each term to VA Liaison.
- Courses must align with your **approved VA program of study**.

## Key Notes:

- **VA Chapters 30, 35, and 1606** pay directly to students; plan to cover initial costs.
- Notify the Veteran Support Liaison of **any changes** in schedule or program.
- Contact: **Nathan Gholston**, Veteran Support Liaison

## Accepting Your Financial Aid Awards

Before receiving financial aid, students must accept the **Terms and Conditions** for all awarded funds. Awards are made automatically based on eligibility and funding availability. Students awarded **Federal Work Study** must accept the award in Banner Web before beginning a work assignment.

## How to Accept Your Aid in Banner Web:

- Log in to **Banner Web**
- Go to **Student Services and Financial Aid**
- Select **Award Information > Current Award Year**

- Click **Terms and Conditions** to accept
- Click **Accept Award Offer** to accept, adjust, or decline awards

## Financial Aid for Basic Law Enforcement Certification

This non-term program has its own academic calendar, consisting of:

- **17 weeks**
- **42 credit hours**
- **30-week standard academic year**

### Disbursement of Federal Aid:

- Aid is split into **two disbursements**:
  - First between the **start of classes and week 9**
  - Second **after week 9**
- Aid is prorated if students:
  - Withdraw early
  - Are no-shows
  - Enroll in only part of the program

Federal aid for this non-term program follows **Formula 4** from the U.S. Department of Education's FSA Handbook.

## Satisfactory Academic Progress (SAP)

To maintain financial aid eligibility, students must meet both **qualitative (GPA)** and **quantitative (pace and timeframe)** standards.

### Key SAP Requirements:

- **Minimum GPA:** 2.0 cumulative (on a 4.0 scale)
- **Course Completion:** At least **66.66% of all attempted credit hours**
- **Maximum Timeframe:** Complete program within **150%** of its published length (e.g., 50-credit hour program must be completed in no more than 75 credits)

SAP is evaluated at the end of each semester and applies to all students, whether or not they have previously received financial aid.

## Grade Definitions:

- **Successful grades:** A, A\*, B, B\*, C, C\*, D
- **Unsuccessful grades:** D\*, F, F\*, I, IP, W, W\*, WF, WF\*, WP, WP\*

## SAP Statuses and Appeals

### Warning

- Triggered after failing to meet SAP for the first time
- Financial aid continues **for one semester**
- Student is notified via **student email**

### Exclusion

- Occurs if SAP is not met after the Warning term
- Student becomes **ineligible for financial aid**
- Must **submit an appeal** to regain eligibility

### Probation

- Granted if appeal is approved
- Student follows an **Academic Plan**
- Must meet terms each semester to remain eligible
- Eligibility is restored once SAP standards are met

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## Special SAP Considerations

### Learning Support Classes

- Count toward SAP completion and timeframe
- Must be completed with A\*, B\*, or C\* to count as successful

### Dropped & Repeated Courses

- Withdrawals, repeats, and no-shows are counted in SAP
- Courses dropped during drop/add are not counted



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## Transfer Credits

- Count toward completion rate and maximum timeframe
- **Do not** affect GPA for SAP

## Multiple Programs

- Students changing programs may request a **completion reset**
- Must appeal if they exceed the 150% cap after January 28, 2019

## Notifications

- Students are notified by email when placed on **Warning** or **Exclusion**
- Courtesy reminders are sent mid-semester if close to 150% limit

## Regaining Financial Aid Eligibility

Eligibility may be regained by:

- Meeting SAP standards at a future evaluation
- Submitting a successful appeal and following an academic plan

## SAP Appeals

Students on Financial Aid Exclusion may appeal by submitting a **Satisfactory Academic Progress Appeal Form** with:

- A detailed explanation of extenuating circumstances
- Documentation (e.g., medical records, obituary, employer letter)
- A plan for academic improvement

**Appeals must be submitted by the semester midpoint.** Decisions are final unless denied due to missing documentation (students will have 1 week to submit additional info).

## Extenuating Circumstances May Include:

- Death of a relative
- Hospitalization or illness
- Family emergency
- Involuntary job changes

## Academic Plans

If an appeal is approved, students are placed on an **Academic Plan**, which may include:

- 100% course completion each term (no W, F, or D if C is required)
- Minimum cumulative **67% completion rate** and **2.0 GPA**
- Regular meetings with academic advisors or support services
- Expiration date based on program length and student progress

Failure to meet plan terms results in **financial aid exclusion**.

## Re-Appeal Rules:

- Students may re-appeal only after **3 semesters**
  - Example: Denied Fall 2024 → may re-appeal Fall 2025

## Return to Title IV Policy (R2T4)

Federal Title IV aid is awarded under the assumption a student will complete the full term. If a student withdraws before completing **more than 60%** of the term:

- A **Return to Title IV (R2T4)** calculation is performed
- The school determines how much aid was "earned"
- Unearned funds are returned to the U.S. Department of Education

## Withdrawal Process:

- Notify the school in writing or verbally
- If no official notice is provided, the withdrawal date defaults to **50%** of the term
- "Participation" is based on academic activity (submitting assignments, taking exams), not just physical or virtual presence

## Final Notes

- All financial aid policies and procedures are subject to change.
- Students are encouraged to regularly check their GPTC email for important updates.

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# Student Affairs

The mission of Georgia Piedmont Technical College Student Affairs is to satisfy student needs for access, student growth and development, and transition to employment and lifelong learning opportunities; to satisfy institutional needs for enrollment, student records, effective management, and staff development; and to satisfy community needs for career information and education.

## Academic Advisement

Georgia Piedmont Technical College (GPTC) is committed to supporting student success through a comprehensive academic advising system. Advising is available to all GPTC students and is designed to guide them in academic planning, personal development, and career readiness.

### Objectives of Academic Advising:

- Provide guidance on career and educational opportunities, as well as personal and social development
- Assist students in exploring life and career goals, and selecting appropriate educational programs
- Support course selection and academic scheduling aligned with students' goals
- Interpret and discuss assessments related to academic placement, aptitude, achievement, and personal interests
- Identify and help remove barriers to academic success
- Offer advising that promotes informed decision-making and personal growth
- Coordinate specialized support services for target populations including, but not limited to, at-risk students, international students, and students with disabilities
- Evaluate and improve advising and other student services to ensure effectiveness

At the core of GPTC's advising philosophy is a developmental approach—one that fosters student success and retention by helping students make intentional, informed decisions about their education and future. Students are required to meet with their faculty advisor each semester for academic planning. However, the ultimate responsibility for meeting graduation requirements rests with the student.

## Learning Support

The Learning Support Program serves any prospective student whose basic academic skills are below the minimum levels recommended to enter a credit program at Georgia Piedmont Technical College. Each technical education program has established a description of entry-level reading, language, and math competencies. The major purpose of Learning Support is to provide learning experiences in reading, language, and math that will aid the student in mastering the skills needed for admission into a selected program of study. Assignment to Learning Support is based on the results of standardized tests and the competencies needed for the prospective program of study. After testing is completed, the student shall be advised to complete the appropriate courses.

Georgia Piedmont Technical College implemented a redesigned Learning Support curriculum in Fall 2011. Students who attended the college prior to that term and who are returning to the college will be required to retake the placement exam. Students transferring into Georgia Piedmont Technical College who have not completed a transferable college-level English or Math will also be required to take the placement exam. Tutoring assistance with the exams is available to Learning Support students in the Student Success & Learning Support Center.

## Student Success & Learning Support Center

The mission of the Student Success & Learning Support Center is to improve student retention by preventing academic problems from interfering with attainment of educational goals.

Open to all registered Georgia Piedmont Technical College students, the Student Success & Learning Support Center offers free academic tutoring services in math, reading, and English, based on learning styles and individual student needs. Availability of tutors for specific subjects varies from one semester to the next. The Center is also equipped with computerized tutorials which are designed to help students improve skills in math, reading, and writing. These tutorials encourage each student to become actively involved in developing thinking skills necessary for effective problem-solving.

The Student Success & Learning Support Center additionally provides remediation and language assistance to credit students identified as ESL. Tutors are available to aid students by creating individualized instructional plans that include language-specific challenges that support in building grammar, reading, vocabulary, and listening skills.

Throughout the semester, class orientation sessions are conducted with a focus on a variety of topics such as study and test taking skills, stress and time management, building self-esteem, and career decision-making. ACCUPLACER handouts are available to help students prepare for the placement test. Student Success & Learning Support Center locations:

DeKalb Campus	South DeKalb Campus	Newton Campus
Room D-1	Room 402-C	Room B-216/202
Ext. 1287	Ext. 6016	Ext. 3236/3244

For more information, call 404-297-9522, Ext. 1287.

## Career Services

Career Services at Georgia Piedmont Technical College (GPTC) provides a full range of support to help students and community members plan for and secure meaningful careers. From initial career exploration to job placement, our services are designed to guide individuals at every stage of their academic and professional journey.

### Career Planning and Advising

Prospective students can receive assistance from the Admissions staff in selecting an appropriate course of study. Common topics discussed include academic program requirements, job market outlook, work environments, salary expectations, class scheduling, and financial aid.

For more information, contact the Office of Admissions:

- DeKalb Campus: (404) 297-9522, ext. 1602
- Newton Campus: (404) 297-9522, ext. 3100
- Email: [admissions@gptc.edu](mailto:admissions@gptc.edu)

Career guidance is also offered through the Career Services Office. Individuals can access computerized assessment tools that help identify interests, aptitudes, skills, and work-related values. Career Services staff are available to interpret results and assist students or prospective students in aligning their strengths with suitable academic programs and career paths.

For personalized assistance, contact Career Services:

- DeKalb Campus: (404) 297-9522, ext. 1183

## Job Search Assistance and Employer Connections

Career Services staff at the One Stop Advisement Center assist students and community members in connecting with employment opportunities. Services include:

- Full- and part-time job listings from local and regional employers
- Online job search resources available on campus and remotely (with authorization)
- Career seminars, workshops, and one-on-one coaching in areas such as:
  - Resume writing
  - Interview preparation
  - Professional image and branding
  - Networking and job search strategies
  - Salary negotiation
  - Career advancement and job retention

## Employer Engagement

GPTC partners closely with employers to meet workforce needs. Businesses are encouraged to engage with students through on-campus recruiting, company presentations, and career-readiness workshops. These collaborations help ensure students are career-ready upon graduation.

Thanks to these comprehensive services and strong partnerships, nearly 90% of GPTC graduates secure employment following graduation.

## Student Centers

The Student Center and the Student Vending Areas are to be used by Georgia Piedmont Technical College students, faculty, and staff for purposes of eating and socializing, and for events sponsored by Georgia Piedmont Technical College. These areas are not to be used for any gaming purposes such as card-playing, dominoes, or any other recreational activities, or to harbor activities or behaviors that infringe on the rights of other users, including excessively loud conversations and discussions, or profane and abusive language.

## Health Services

As a non-residential institution, Georgia Piedmont Technical College expects that students will normally secure medical services through a private physician. In case of a serious accident or illness, Georgia Piedmont Technical College will refer a student to the nearest hospital for emergency care. It is understood that the student or parent will assume full responsibility for the cost of such emergency care at the hospital, including ambulance charges if in the opinion of the College authorities such service is necessary. In the event of an emergency, the first employees on the scene should notify Security. Emergency care, if needed, will be secured and notification made to the Academic Dean.

# Student Conduct, Rights, and Responsibilities

As members of the Georgia Piedmont Technical College (GPTC) community, students are entrusted with both rights and responsibilities. These responsibilities help preserve the integrity and effectiveness of the college environment, ensuring that all students have the opportunity to succeed.

## Expectations

All students are expected to:

- Understand and exercise their rights,
- Fulfill their responsibilities, and
- Respect the rights of others in the GPTC community.

Lack of familiarity with these rights and responsibilities does **not** exempt students from adhering to them.

## Importance of Awareness

Being informed about student rights and responsibilities:

- Helps students avoid disciplinary actions,
- Promotes a respectful, inclusive, and productive learning environment,
- Ensures that everyone has equal opportunity to grow and succeed.

## Confidentiality of Records

Students have the right to confidentiality of their academic and disciplinary records, in accordance with applicable laws. Specifically:

- No records are maintained that reflect students' political beliefs or activities.
- No student records are accessible to unauthorized individuals without the student's written consent, **unless required by law**.

## Programs in Automotive & Transportation

### Automotive Technology

Auto Electrical/Electronic Systems Technician  
Auto Maintenance and Light Repair Tech  
Automotive Chassis Technician Specialist  
Automotive Climate Control Technician  
Automotive Engine Performance Technician  
Automotive Engine Repair Technician  
Automotive Fundamentals  
Automotive Technology  
Automotive Technology (AAS)  
Automotive Transmission/Transaxle Tech Specialist  
Mobility/Light Vehicle Technician

### Commercial Truck Driving

Commercial Truck Driving



# Auto Electrical/Electronic Systems Technician

## Technical Certificate of Credit

This certificate program provides students with the knowledge and skills necessary to diagnose, service, and repair basic electrical/electronic automotive systems as an entry level technician. Topics covered include automotive shop safety, electrical theory and circuit diagnosis, automotive batteries, starting and charging systems, instrumentation, lighting, and various vehicle accessories.

### Occupational Courses (9 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7

# Auto Maintenance and Light Repair Tech

## Technical Certificate of Credit

ALR1

The Auto Maintenance and Light Repair TCC prepares students for entry level maintenance and repair positions in auto service shops. Students will learn the basic repair and maintenance operations in all eight ASE areas of passenger vehicles and light trucks. Graduates of this TCC will be able to pursue master level auto knowledge in the auto technology diploma or degree programs.

### Occupational Courses (20 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1011 Basic Auto Maint&Lgt Repair I	6
AUTT 1012 Auto Maint & Lgt Repair II	6
AUTT 1013 Auto Maint & Lgt Repair III	6

# Automotive Chassis Technician Specialist

## Technical Certificate of Credit

ASG1

The Automotive Chassis Technician Specialist certificate program provides students with skills needed to enter the automotive industry as an entry level chassis technician. Topics covered include: shop safety, basic electrical/electronic theory and diagnosis, chassis components and types, steering system components and service, alignment theory and procedures, and brake system operation, diagnosis and repair.

### Occupational Courses (17 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1030 Automotive Brake Systems	4
AUTT 1050 Suspension&Steering Systems	4

# Automotive Climate Control Technician

## Technical Certificate of Credit

AH21

The Automotive Climate Control Technician certificate program provides students with skills for entering the automotive service industry as an entry level climate control technician. Topics covered include: basic shop safety, electrical/electronic theory and diagnosis, and the theory, operation, diagnosis and servicing of automotive climate control systems.

### Occupational Courses (14 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1060 Climate Control Systems	5

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# Automotive Engine Performance Technician

## Technical Certificate of Credit

AE51

The Automotive Engine Performance Technician certificate program introduces students to the knowledge and skills they will need as entry level automotive engine performance technicians. Topics covered include: shop safety, electrical/electronics diagnosis, and diagnosis and service of fuel, ignition, emission and electronic engine controls.

### Occupational Courses (16 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1040 Engine Performance	7

# Automotive Engine Repair Technician

## Technical Certificate of Credit

AE61

The Automotive Engine Repair Technician certificate program provides the student with entry level automotive engine repair skills. Topics include: basic shop safety, basic electrical/electronic diagnosis, principles of engine operation, basic engine diagnosis, and basic engine repair procedures.

### Occupational Courses (15 Credits)

#### Required Courses:

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 2010 Engine Repair	6

# Automotive Fundamentals

## Diploma

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 enable students to 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 Auto Fundamentals diploma that qualifies them as entry-level technicians.

### Basic Skills (8 Credits)

MATH 1012 Foundations of Mathematics	3
ENGL 1010 Fundamentals of English I	3
EMPL 1000 Interpersonal Relat & Prof Dev	2

### Occupational Courses (32 Credits)

#### Required Courses:

COMP 1000 Intro to Computer Literacy	3
AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1030 Automotive Brake Systems	4
AUTT 1040 Engine Performance	7
AUTT 1050 Suspension&Steering Systems	4
AUTT 1060 Climate Control Systems	5

# Automotive Technology

## Diploma

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 enable students to 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 Auto Technology diploma that qualifies them as well rounded entry-level technicians.

### Basic Skills (8 Credits)

ENGL 1010 Fundamentals of English I	3
EMPL 1000 Interpersonal Relat & Prof Dev	2
MATH 1012 Foundations of Mathematics	3

### Occupational Courses (47 Credits)

#### Required Courses:

COMP 1000 Intro to Computer Literacy	3
AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1030 Automotive Brake Systems	4
AUTT 1040 Engine Performance	7
AUTT 1050 Suspension&Steering Systems	4
AUTT 1060 Climate Control Systems	5
AUTT 2010 Engine Repair	6
AUTT 2020 Manual Transmissions	4
AUTT 2030 Automatic Transmissions	5



# Automotive Technology (AAS)

## Degree

The Automotive Technology Associates Degree program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities enable students to 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 Auto Technology Associates degree that qualifies them as entry-level technicians.

### General Education Core (15 Credits)

#### Area I: Language Arts/Communication (3 Credits)

ENGL 1101 Composition and Rhetoric	3
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#### Area II: Social/Behavioral Sciences (Choose ONE course) (3 Credits)

ECON 1101 Principles of Economics	3
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ECON 2105 Principles of Macroeconomics	3
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ECON 2106 Principles of Microeconomics	3
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HIST 1111 World History I	3
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HIST 1112 World History II	3
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HIST 2111 U.S. History I	3
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HIST 2112 U.S. History II	3
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POLS 1101 American Government	3
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PSYC 1101 Introductory Psychology	3
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SOCI 1101 Introduction to Sociology	3
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#### Area III: Natural Sciences/Mathematics (Choose ONE course) (3 Credits)

MATH 1101 Mathematical Modeling	3
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MATH 1103 Quan. Skills and Reasoning	3
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MATH 1111 College Algebra	3
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#### Area IV: Humanities/Fine Arts (Choose ONE course) (3 Credits)

ARTS 1101 Art Appreciation	3
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ENGL 2130 American Literature	3
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HUMN 1101 Introduction to Humanities	3
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MUSC 1101 Music Appreciation	3
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RELG 1101 World Religions	3
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#### Elective: General Education (Choose ONE course) (3 Credits)

ENGL 1102 Literature and Composition	3
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SPCH 1101 Public Speaking	3
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BIOL 1111 Biology Lab I	1
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BIOL 1111 Biology Lab I	1
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BIOL 1112 Biology Lab II	1
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BIOL 1112 Biology Lab II	1
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CHEM 1211 Chemistry Lab 1	1
CHEM 1211 Chemistry Lab 1	1
CHEM 1212 Chemistry Lab II	1
CHEM 1212 Chemistry Lab II	1
MATH 1113 Precalculus	3
MATH 1127 Introduction to Statistics	3
MATH 1131 Calculus	4
MATH 1132 Calculus II	4
PHYS 1110 Conceptual Physics Lab	1
PHYS 1110 Conceptual Physics Lab	1
PHYS 1111 Introductory Physics Lab I	1
PHYS 1111 Introductory Physics Lab I	1
PHYS 1112 Introductory Physics Lab II	1
PHYS 1112 Introductory Physics Lab II	1

### Occupational Courses (47 Credits)

#### Required Courses:

COMP 1000 Intro to Computer Literacy	3
AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1030 Automotive Brake Systems	4
AUTT 1040 Engine Performance	7
AUTT 1050 Suspension&Steering Systems	4
AUTT 1060 Climate Control Systems	5
AUTT 2010 Engine Repair	6
AUTT 2020 Manual Transmissions	4
AUTT 2030 Automatic Transmissions	5

# Automotive Transmission/Transaxle Tech Specialist

## Technical Certificate of Credit

AA71

The Automotive Transmission/Transaxle Tech Specialist certificate program provides students with the skills to enter the automotive industry as an entry level transmission, transaxle, and drive line technician. Topics covered include: shop safety, basic electrical/electronic theory and diagnosis, manual transmission/transaxle operation and diagnosis, automatic transmission/transaxle operation and diagnosis, axles operation and diagnosis, differentials operation and diagnosis, and 4WD/AWD systems operation and diagnosis.

### Occupational Courses (18 Credits)

**Required Courses:**

AUTT 1010 Automotive Technology Introduction	2
AUTT 1020 Electrical/Electronic Systems	7
AUTT 2020 Manual Transmissions	4
AUTT 2030 Automatic Transmissions	5

# Mobility/Light Vehicle Technician

## Diploma

The Mobility Light Vehicle Technician Diploma program is a sequence of courses designed to prepare students for careers in the mobility bus/light vehicle service and repair profession. Learning opportunities enable students to develop academic, technical and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of bus mechanical theory and practical application necessary for successful employment. Program graduates receive a Mobility Light Vehicle diploma that qualifies them as entry-level technicians.

### Basic Skills (8 Credits)

ENGL 1010 Fundamentals of English I	3
MATH 1012 Foundations of Mathematics	3
EMPL 1000 Interpersonal Relat & Prof Dev	2

### Occupational Courses (42 Credits)

#### Required Courses:

COMP 1000 Intro to Computer Literacy	3
AUTT 1020 Electrical/Electronic Systems	7
AUTT 1030 Automotive Brake Systems	4
AUTT 1050 Suspension&Steering Systems	4
AUTT 1060 Climate Control Systems	5
AUTT 2020 Manual Transmissions	4
AUTT 2030 Automatic Transmissions	5
DIET 1030 Diesel Engines	6
TRST 1000 Transit Industry Fundamentals	1
TRST 1030 Mobility Van Body System	3

# Commercial Truck Driving

## Technical Certificate of Credit

CT61

The Commercial Truck Driving certificate program provides basic training in the principles and skills of commercial truck operations. The program is based on the definition of a truck driver as one who operates a commercial motor vehicle of all different sizes and descriptions on all types of roads. The CTD program prepares students for the Georgia CDL Skills Exam.

### Occupational Courses (9 Credits)

**Required Courses:**

CTDL 1010 Fundamentals of Comm Driving	3
CTDL 1020 Combin Vehicle Oper&Range Work	2
CTDL 1030 Combination Veh Adv Operations	4

**ACCT 1100 - Financial Accounting I****Prerequisites:** MATH 1011, MATH 1012, MATH 1101, MATH 1103, MATH 1111

4 Credits

Introduces the basic financial accounting concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts the accounting cycle for a personal service business the accounting cycle for a merchandising business inventory cash control and receivables. Laboratory work demonstrates theory presented in class.

**ACCT 1105 - Financial Accounting II****Prerequisite:** ACCT 1100

4 Credits

Introduces the intermediate financial accounting concepts that provide the student with the necessary skills to maintain a set of books for a partnership and corporation. Topics include: Fixed and Intangible Assets Current and Long-Term Liabilities (Notes Payable) Payroll Accounting for a Partnership Accounting for a Corporation Statement of Cash Flows and Financial Statement Analysis Laboratory work demonstrates theory presented in class.

**ACCT 1115 - Computerized Accounting****Prerequisite:** ACCT 1100

3 Credits

Emphasizes operation of computerized accounting systems from manual input forms. Topics include: company creation (service and merchandising) chart of accounts customers transactions vendors transactions banking activities merchandise inventory employees and payroll and financial reports. Laboratory work includes theoretical and technical application.

**ACCT 1120 - Spreadsheet Applications****Prerequisite:** COMP 1000

4 Credits

This course covers the knowledge and skills to use spreadsheet software through course demonstrations laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts creating and manipulating data formatting data and content creating and modifying formulas presenting data visually and collaborating and securing data.

**ACCT 1125 - Individual Tax Accounting**

3 Credits

Provides instruction for the preparation of individual federal income tax returns. Topics include: taxable income income adjustments schedules standard deductions itemized deductions exemptions tax credits and tax calculations.

### **ACCT 1130 - Payroll Accounting**

**Prerequisite:** ACCT 1100

3 Credits

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.

### **ACCT 2000 - Managerial Accounting**

**Prerequisite:** ACCT 1105

3 Credits

Emphasizes the interpretation of data by management in planning and controlling business activities. Topics include Managerial Accounting Concepts, Manufacturing Accounting using a Job Order Cost System, Manufacturing Accounting using a Process Cost System, Cost Behavior and Cost-Volume-Profit, Budgeting and Standard Cost Accounting, Flexible Budgets, Standard Costs and Variances, and Capital Investment Analysis and Budgeting. Laboratory work demonstrates theory presented in class.

### **ACCT 2100 - Accounting Internship I**

**Prerequisite:** ACCT 1100

4 Credits

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.

### **ACCT 2110 - Accounting Simulation**

**Prerequisite:** ACCT 1105

3 Credits

Students assume the role of a business owner where he/she can directly experience the impact and importance of accounting in a business. At the end of the simulation course the student will have completed the entire accounting cycle for a service business merchandising business and a corporation using an Accounting Information System software (different from software used in ACCT 1115-Computerized Accounting). Emphasis placed on providing students with real-world opportunities for the application and demonstration of accounting skills by using Simulation Projects will enable them to build a foundation for understanding and interpreting financial statements. Topics include company creation chart of accounts customers transactions vendors transactions banking activities merchandise inventory employees and payroll financial statements preparation of payroll tax forms and preparation of income tax forms. Laboratory work includes theoretical and technical application.



**ACCT 2120 - Business Tax Accounting****Prerequisite:** ACCT 1125

3 Credits

Provides instruction for preparation of both state and federal partnership, corporation and other business tax returns. Topics include: organization form, overview of taxation of partnership, 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.

**ACCT 2135 - Intro to Gov & Nonprofit Acct****Prerequisite:** ACCT 1105

3 Credits

Provides an introduction to financial reporting and accounting principles for state/local governments and nonprofit entities.

**ACCT 2140 - Legal Environment of Business**

3 Credits

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.

**ACCT 2145 - Personal Finance**

3 Credits

Introduces practical applications of concepts and techniques used to manage personal finance. Topics include: cash management time value of money credit major purchasing decisions insurance investments retirement and estate planning.

**ACCT 2150 - Principles of Auditing****Prerequisite:** ACCT 1105

3 Credits

Introduces the student to the auditors 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.

**ACCT 2155 - Principles of Fraud Exam**

3 Credits

Provides instruction of the basic principles and theories of occupational fraud. Topics include: fraud concepts, skimming, cash larceny, billing schemes, check tampering, payroll schemes, expense reimbursement schemes, register disbursement schemes, non-cash assets fraud, corruption schemes, and accounting principles and fraud.

### **ACCT 2160 - Accounting Ethics**

**Prerequisite:** ACCT 1105

3 Credits

Accounting Ethics introduces the student to necessary foundation and philosophies about ethical and moral conduct and how to make sound ethical decisions in business. This course highlights notable issues in accounting and how current accounting legislations play a major role in the profession. Topics include: ethical principles and reasoning, corruption, collusion, social responsibility, ethical decision making, fraud detection, confidentiality, independence, financial disclosure, conflict of interest, professional codes of conduct and fiduciary responsibilities.

### **AIPM 1101 - Apartment Industry Foundations**

3 Credits

This course is designed to orient the student to the management responsibilities of the apartment industry. Topics include an introduction to the apartment industry, apartment marketing and leasing, financial reporting, legal and legislative issues, fair housing, risk management, property management, professional enrichment, and career development.

### **AIPM 1115 - Apartment Industry Internship**

**Prerequisite:** AIPM 1101

3 Credits

This course is designed to give students an opportunity to experience the industry work environment and to apply the skills learned in the classroom. Topics include the application of classroom knowledge and skills, use of interpersonal skills, adaptability to the workplace environment, problem solving techniques, and safety.

### **AIRC 1005 - Refrigeration Fundamentals**

4 Credits

Introduces the basic concepts theories and safety regulations and procedures of refrigeration. Topics include an introduction to OSHA safety first aid laws of thermodynamics pressure and temperature relationships heat transfer the refrigerant cycle refrigerant identification and types of AC systems.

### **AIRC 1010 - Refrigeration Principle & Practice**

**Prerequisite:** AIRC 1005

4 Credits

This course introduces the student to basic refrigeration system principles and practices and the major component parts of the refrigeration system. Topics include refrigeration tools piping practices service valves leak testing refrigerant recovery recycling and reclamation evacuation charging and safety.

**AIRC 1020 - Refrigeration Syst Components****Prerequisite:** AIRC 1010

4 Credits

This course provides the student with the skills and knowledge and skills to install test and service major components of a refrigeration system. Topics include compressors condensers evaporators metering devices service procedures refrigeration systems and safety.

**AIRC 1030 - HVACR Electrical Fundamentals**

4 Credits

This course provides an introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include AC and DC theory electric meters electrical diagrams distribution systems electrical panels voltage circuits code requirements and safety.

**AIRC 1040 - HVACR Electrical Motors****Prerequisite:** AIRC 1030

4 Credits

This course provides the student with the skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include diagnostic techniques capacitors installation procedures types of electric motors electric motor service and safety.

**AIRC 1050 - HVACR ELCT Components&Control**

4 Credits

Provides instruction in identifying installing and testing commonly used electrical components in an air conditioning system. Topics include: pressure switches transformers other commonly used controls diagnostic techniques installation procedures solid state controls and safety.

**AIRC 1060 - Air Cond System Appl & Install****Prerequisite:** AIRC 1010

4 Credits

Provides instruction on the installation and service of residential air conditioning systems. Topics include: installation procedures split-systems add-on systems packaged systems system wiring control circuits and safety.

**AIRC 1070 - Gas Heat****Prerequisite:** AIRC 1030

4 Credits

This course introduces principles of combustion and service requirements for gas heating systems. Topics include servicing procedures electrical controls piping gas valves venting code requirements principles of combustion and safety.

### **AIRC 1080 - Heat Pumps and Related Systems**

**Prerequisite:** AIRC 1010

4 Credits

This course provides instruction on the principles applications and operation of a residential heat pump system. Topics include installation and servicing procedureselectrical components geothermal ground source energy supplies dual fuel valves and troubleshooting techniques.

### **AIRC 1090 - Troubleshooting Air Cond Syst**

**Prerequisite:** AIRC 1010

4 Credits

This course provides instruction on the troubleshooting and repair of major components of a residential air conditioning system. Topics include troubleshooting techniques electrical controls air flow the refrigeration cycle electrical servicing procedures and safety.

### **AIRC 2004 - Thermodynamics of Refrigeratio**

2 Credits

Course will explore the relationship between heat, work, and systems that analyze energy processes. Understand the Laws of Thermodynamics. Define terms and expressions related to thermodynamics such as: heat engines, steam turbines compressor, thermodynamic cycle, heat transfer, enthalpy, entropy, temperature, pressure, specific volume, sensible and latent heat, and thermal conductivity.

### **AIRC 2030 - Commercial Ref. Internship**

**Prerequisite:** AIRC 1090

8 Credits

Provides students with occupation-based instruction that applies learned skills to actual work experiences. Topics include: application of commercial refrigeration knowledge and skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance. The Light Commercial Air Conditioning Internship/Practicum is implemented through student internship in an approved occupational setting or through student work in an occupational practicum. Written individualized training plans, written performance evaluations, and required integrative experiences are used to implement this course.

### **AIRC 2040 - Residential Systems Designs**

4 Credits

Presents advanced refrigeration and electrical skills and theories. Topics include: heat gain and heat loss duct designzone control equipment selection and safety.

**AIRC 2070 - Commercial Ref. Design****Prerequisite:** AIRC 1090

4 Credits

Provides an increased level of concepts and theory beyond ACT 102. Students are introduced to more design theory in commercial refrigeration. Topics include: refrigeration heat calculation equipment selection refrigeration piping codes and safety.

**AIRC 2080 - Commercial Ref. Applications****Prerequisite:** AIRC 2070

4 Credits

Introduces the application of fundamental theories and concepts of refrigeration. Emphasis will be placed on equipment application and installation procedures. Topics include: equipment application installation procedures cycle controls energy management and safety.

**AIRC 2090 - Troubleshoot&ServComm Refrig****Prerequisite:** AIRC 2080

4 Credits

Continues to provide experience in maintenance techniques in servicing light commercial refrigeration systems. Topics include: system clearing troubleshooting procedures replacement of components and safety.

**ALHS 1010 - Introduction to Anatomy and Physiology**

4 Credits

Provides a study of medical terminology and the basic study of structure and function of the human body. It provides an overview of the functions of each body system and the medical terminology associated with each system. This course is intended for students in non-medical programs and is designed to provide medical terminology and basic knowledge of anatomy and physiology.

**ALHS 1011 - Anatomy and Physiology**

5 Credits

Focuses on basic normal structure and function of the human body. Topics include general plan and function of the human body integumentary system skeletal system muscular system nervous and sensory systems endocrine system cardiovascular system lymphatic system respiratory system digestive system urinary system and reproductive system.

**ALHS 1040 - Introduction to Health Care**

3 Credits

Introduces a grouping of fundamental principles practices and issues common 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/blood and air-borne pathogens.

**ALHS 1060 - Diet and Nutrition for Allied Health Sciences**

2 Credits

A study of the nutritional needs of the individual. Topics include: nutrients, standard and modified diets, nutrition throughout the lifespan, and client education.

**ALHS 1090 - MedTerm/Allied Health Sciences**

2 Credits

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 and terminology related to the human anatomy.

**AMCA 2110 - CNC Fundamentals**

3 Credits

Provides a comprehensive introduction to computer numerical controlled (CNC) machining processes. Topics include: safety Computer Numerical Control of machinery setup and operation of CNC machinery introduction to programming of CNC machinery introduction to CAD/CAM.

**AMCA 2130 - CNC Mill Manual Programming**

5 Credits

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include: safety calculation for programming program codes and structure program run and editing of programs.

**AMCA 2150 - CNC Lathe Manual Programming**

**Prerequisite:** AMCA 2110

5 Credits

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) Lathes. Topics include: safety calculations for programming program codes and structure program run and editing of programs.

**AMCA 2170 - CNC Practical Applications**

**Prerequisites:** AMCA 2110, AMCA 2130, AMCA 2150

4 Credits

Provides additional instruction in part holding and fixture design. Students will also gain additional experience in print-to-part development of CNC programming. Topics include: safety, fixture design and manufacturing, and CNC part manufacturing.

### **AMCA 2190 - CAD/CAM Programming**

**Prerequisite:** AMCA 2110

4 Credits

Emphasizes the development of skills in computer aided design (CAD) and computer aided manufacturing (CAM). The student will design and program parts to be machined on computer numerical controlled machines. Topics include: hardware and software drawing manipulations tool path generation program posting and program downloading.

### **ARTS 1101 - Art Appreciation**

3 Credits

Explores the visual arts and the relationship to human needs and aspirations. Students investigate the value of art, themes in art, the elements and principles of composition, and the materials and processes used for artistic expression. Well-known works of visual art are explored. The course encourages student interest in the visual arts beyond the classroom.

### **AUMF 1110 - Flexible Manufacturing Syst I**

5 Credits

This course provides instruction in manufacturing control process and work cell interfacing. Emphasis is placed on open and closed loop systems. Instruction is also given in the area of linear integrated circuits. Topics include process control sensor and cell level interfacing fluid level pressure and flow measurement pneumatic controls and human factors and safety.

### **AUMF 1120 - Programmable Controllers**

**Prerequisite:** IDFC 1005

5 Credits

This course studies basic programmable controller application skills and techniques, and programmable controllers in typical environments as an element of a complex manufacturing cell. Topics also discussed will include the hands-on development of the programming, operation, and maintenance of industrial PLC systems.

### **AUMF 1130 - Applied Hydraulics, Pneumatics, and Mechanics**

2 Credits

Emphasizes mechanical techniques for maintaining, troubleshooting, installing, and repairing drives, conveyor systems, and valves. Topics include: gas laws; pressure and force calculations; hydraulic systems vs pneumatic systems; cylinders, pressure controls, and system controls; hydraulic and pneumatic symbology; hydraulic and pneumatic system layout; interfacing hydraulic or pneumatic systems with other systems; applied mechanisms; belt, chain, and gear drives; drive train components; valves; and conveyor systems.

**AUMF 1150 - Introduction to Robotics**

**Prerequisite:** IDSY 1120

3 Credits

Explores basic robotic concepts. Studies robots in typical application environments. Topics include: robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation and robot controllers, controller architecture in a system, robotic language programming, and human interface issues.

**AUMF 1210 - Flexible Manufacturing Sys II**

**Prerequisite:** AUMF 1110

5 Credits

The course reviews flexible manufacturing system electrical electronic and mechanical principles by providing opportunities to plan and prepare for constructing and operating an actual flexible automated system. Emphasis is also placed on work cell design by allowing students to work in instructor-supervised teams assembling and operating automated production system cells. Topics include flexible system planning and preparation work cell design prototype or demonstration work cell operation and work cell debugging and troubleshooting.

**AUMF 1560 - Manufacturing Production Requirements**

1 Credits

This course provides learners with the knowledge and skills associated with quality and productivity in the manufacturing environment. Topics include world class manufacturing, statistical process control, and problem solving.

**AUTT 1010 - Automotive Technology Introduction**

2 Credits

Introduces basic concepts and practices necessary for safe and effective automotive shop operations. Topics include: safety procedures; legal/ethical responsibilities; general service; hand tools; shop organization, management, and work flow systems.

**AUTT 1011 - Basic Auto Maint&Lgt Repair I**

6 Credits

This course introduces students to basic automotive system checks and inspection procedures practiced in virtually all service shops. Fundamental service procedures are also covered.

**AUTT 1012 - Auto Maint & Lgt Repair II**

6 Credits

This course exposes students to the basic maintenance procedures and light repair operations performed by auto technicians on a regular basis on all eight areas of the vehicle.



**AUTT 1013 - Auto Maint & Lgt Repair III****Prerequisite:** AUTT 1012

6 Credits

This course allows students to further study and practice basic maintenance procedures and diagnostic tests in all eight areas of light vehicle service.

**AUTT 1020 - Electrical/Electronic Systems**

7 Credits

Introduces automotive electricity emphasizes the basic principles diagnosis and service/repair of batteries starting systems starting system components alternators and regulators lighting system gauges horn wiper/washer and accessories.

**AUTT 1030 - Automotive Brake Systems**

4 Credits

Introduces brake systems theory and its application to automotive systems and anti-lock brake system (ABS) to include ABS components and ABS operation testing and diagnosis. Topics include: hydraulic system diagnosis and repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous brake components (wheel bearings parking brakes electrical etc.) diagnosis and repair; test diagnose and service electronic brake control system.

**AUTT 1040 - Engine Performance****Prerequisite:** AUTT 1020

7 Credits

Introduces basic engine performance systems which support and control four stroke gasoline engine operations and reduce emissions. Topics include: general engine diagnosis computerized engine controls and diagnosis ignition system diagnosis and repair fuel and air induction exhaust systems emission control systems diagnosis and repair and other related engine service.

**AUTT 1050 - Suspension&Steering Systems**

4 Credits

Introduces students to principles of steering suspension wheel alignment electronic steering and electronic active suspension. Topics include: general suspension and steering systems diagnosis; steering systems diagnosis and repair; suspension systems diagnosis and repair; related suspension and steering service; wheel alignment diagnosis adjustment and repair wheel and tire diagnosis and repair.

**AUTT 1060 - Climate Control Systems**

5 Credits

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.

**AUTT 1070 - Automotive Technology Intern****Prerequisite:** AUTT 1030

4 Credits

This elective course will provide the student with an opportunity to relate what they have learned in the classroom and lab to a real world situation either at a place of business or at a technical college. Under the supervision of an experienced ASE certified automotive technician or their instructor the student will obtain a greater admiration and appreciation of the material learned in the classroom and lab. The internship will also serve the function of bridging the lessons learned at school and applying that to real world situations. The suitability of the work setting will be determined by having a conference with the automotive instructor and the prospective employer. The student will have the option to take the internship program at an approved place of employment or at the college if he or she wishes and perform all the live work duties of the service writer parts department personnel and technician to include writing the repair order ordering parts (if applicable) and repairing the vehicle. Student must work a minimum of 150 hours during the semester to receive credit for this course.

**AUTT 2010 - Engine Repair**

6 Credits

This course introduces the student to automotive engine theory and repair placing emphasis on inspection testing and diagnostic techniques for both 2 cycle and 4 cycle internal combustion engines. Topics include general engine diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

**AUTT 2020 - Manual Transmissions**

4 Credits

This course introduces basics of rear-wheel drive front-wheel drive and four-wheel drive drive line 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. Introduces basics of front and rear-wheel drive. Clutch operation diagnosis and service is included. Electronic controls related to transmission/transaxles operation are discussed. Topics include: clutch diagnosis and repair; transmission/transaxles diagnosis and repair.

**AUTT 2030 - Automatic Transmissions**

5 Credits

Introduces students to basic automatic transmission/transaxle theory operation inspection service and repair procedures as well as electronic diagnosis and repair. Topics include: general automatic transmission and transaxle diagnosis; in vehicle and off vehicle transmission and transaxle maintenance adjustment and repair.

**AUTT 2100 - Auto Alternative Fuel Vehicles****Prerequisite:** AUTT 1020

4 Credits

This course will give students the basic knowledge to understand Electric Drive Vehicles, Hybrid Electric Vehicles, and Alternative Fuel Vehicles. The course will cover components, operation, precautions, and diagnostics of BEV, HEV, Fuel Cell Vehicles, and other fuel vehicles. The student will become familiar with the unique hybrid systems and repair procedures on various hybrid vehicles. This course is a program elective which can be used as a substitute for AUTT 1070 (Internship).

**BAFN 1100 - Intro/Banking and Finance**

3 Credits

Introduces the student to the history documents and operational functions of the banking industry.

**BAFN 1105 - Bank Business&Information**

3 Credits

The course emphasizes basic calculator functions with problem solving types of banking equipment teller skills and duties and procedures for bank reconciliations.

**BAFN 1110 - Money and Banking**

3 Credits

The course emphasizes the relevance of monetary instruments financial intermediaries and the central banks as they impact local state national and international economics. Topics include: the history and evolution of financial institutions monetary instruments and flow; and central banking operations and policies.

**BAFN 1115 - Personal Financial Planning**

3 Credits

This course provides knowledge and applications in the management of personal and consumer finance. Topics include: record keeping budgeting credit principles investment principles and forecasting.

**BAFN 1300 - Internship****Prerequisite:** BAFN 1100

3 Credits

This course introduces the application and reinforcement of banking and finance 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 banking and finances applications on the job. The occupation-based instruction is implemented through the use of written individualized training plans written performance evaluations required weekly seminars and required practiced or on-the-job training.

**BAFN 2200 - Finance**

**Prerequisite:** ACCT 1100

3 Credits

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: financial systems of the United States business finance management and financing other sectors of the economy.

**BAFN 2205 - Real Estate Finance**

3 Credits

Emphasizes the relevance of land value legal titles legal descriptions types of real estate finance the leverage of real estate the bank funding requirement mortgage amortizations financial theory and real estate markets.

**BAFN 2210 - Contemporary Bank Management**

**Prerequisite:** BAFN 1100

3 Credits

Emphasizes the relevance of banks and the economy bank regulations and policy bank organizational structure bank management the financial institutions environment bank deregulation and asset/liability management.

**BAFN 2215 - Investments**

3 Credits

Introduces the student to the fundamentals concepts of personal investment planning personal investments the various financial investments available for use and their relative applicability. Emphasis is placed on developing a full understanding of the types of investments available to individuals how these investments can be used and how to evaluate their performance. Topics include: stocks bonds mutual funds retirement planning retirement plans and investment advisors.

**BIOL 1111 - Biology Lab I**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 1111. The laboratory exercises for this course include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, biotechnology, and evolution.

**BIOL 1111 - Biology Lab I**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 1111. The laboratory exercises for this course include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, biotechnology, and evolution.

**BIOL 1112 - Biology Lab II****Prerequisite:** BIOL 1111

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 1112. The laboratory exercises for this course include classification and characterizations of organisms, plant structure and function, animal structure and function, principles of ecology, and biosphere.

**BIOL 1112 - Biology Lab II**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 1112. The laboratory exercises for this course include classification and characterizations of organisms, plant structure and function, animal structure and function, principles of ecology, and biosphere.

**BIOL 2113 - Anatomy & Physiology Lab****Prerequisite:** ENGL 1101

1 Credits

Selected laboratory exercises reinforcing the topics of BIOL 2113. The laboratory exercises for this course include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous sensory systems. Emphasis is placed on the identification of anatomical structures.

**BIOL 2113 - Anatomy & Physiology Lab**

1 Credits

Selected laboratory exercises reinforcing the topics of BIOL 2113. The laboratory exercises for this course include body organization, cell structure and functions, tissue classifications, integumentary system, skeletal system, muscular system, and nervous sensory systems. Emphasis is placed on the identification of anatomical structures.

**BIOL 2114 - Anatomy & Physiology Lab II****Prerequisite:** BIOL 2113

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 2114. The laboratory exercises for this course include the endocrine system, cardiovascular system, blood and lymphatic system, immune system, respiratory system, digestive system, urinary system, and reproductive system.

**BIOL 2114 - Anatomy & Physiology Lab II**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 2114. The laboratory exercises for this course include the endocrine system, cardiovascular system, blood and lymphatic system, immune system, respiratory system, digestive system, urinary system, and reproductive system.

**BIOL 2117 - Introductory Microbiology Lab**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 2117. The laboratory exercises for this course include microbial diversity microbial cell biology microbial genetics interactions and impact of microorganisms and humans and microorganisms and human disease.

**BIOL 2117 - Introductory Microbiology Lab**

1 Credits

Selected laboratory exercises paralleling the topics in BIOL 2117. The laboratory exercises for this course include microbial diversity microbial cell biology microbial genetics interactions and impact of microorganisms and humans and microorganisms and human disease.

**BUAS 1010 - BAS Fundamentals**

2 Credits

BAS Fundamentals provides an overview of the BAS industry in general. Topics include history, BAS manufacturers & contractors, industry scope & trends, careers in BAS, overview of point types, required skills, types of BAS systems, and general BAS architecture.

**BUAS 1020 - BAS Electrical Concepts I**

3 Credits

Introductory concepts of basic electricity to include metric units, scientific notation, atomic theory, charge, voltage, current, resistance, electromagnetism, conductors, insulators, electrical circuits, measurement devices, Ohm's Law, series circuits, parallel circuits, series-parallel circuits, electrical energy, electrical power.

**BUAS 1030 - BAS Elec. Concepts II****Prerequisite:** BUAS 1020

3 Credits

This course continues the development of electrical fundamentals began in BAS Electrical Concepts I. Topics covered include power supplies, reactive electrical components, power distribution, circuit protection, electric motor theory, electric generator theory, types of electric motors, motor starters, switching devices, electrical symbols, pictorial diagrams, schematics, sequences of operation, and basic electrical troubleshooting.

**BUAS 1040 - BAS Devices****Prerequisite:** BUAS 1020

3 Credits

This course will cover the major types of components found in BAS systems. Topics include standard I/O wiring, temperature devices, humidity devices, pressure devices, flow devices, life & equipment safety devices, actuators & dampers, control valves, power supply devices, transducers, relays & contactors, motor controls, enclosures, and power monitoring devices.

**BUAS 1050 - BAS Network Architecture****Prerequisite:** BUAS 1020

3 Credits

This course presents the fundamentals of BAS system network architecture. Topics include network fundamentals, standards, OSI model, IP protocol, network signal transmission, media, protocols, physical topologies, logical topologies, hardware, typical BAS networks, and typical BAS subnetworks.

**BUAS 1060 - BAS Advanced Electrical Concepts****Prerequisite:** BUAS 1030

3 Credits

This course builds upon electrical concepts covered in BAS Electrical Concepts II. Topics include voltage dividers, DC voltage & current sources, simplification theorems, AC current & voltage, oscilloscope fundamentals, reactive components & reactive circuits, basic filters, ladder logic, and shop drawings.

**BUAS 2010 - BAS Commercial HVAC/R & Control****Prerequisite:** BUAS 1030

3 Credits

This course will introduce the student to the major types commercial HVAC/R systems and components, and the modern control theory associated with their proper functioning. Topics include psychrometrics, all-air systems, all-water systems, air & water systems, boilers, chillers, air-side devices, water-side devices, control theory, control system standards, and applied control theory.

**BUAS 2020 - BAS Logic & Programming****Prerequisite:** BUAS 1030

4 Credits

Introductory concepts of logic and programming are covered in this course. Topics include history of logic, logical form, truth tables, logical equivalences, rules of inference, conditionals, boolean expressions, logic gates, digital logic circuits, number systems, programming basics, object-oriented programming, data types, decision making, programming style, and an introduction to languages

**BUAS 2030 - BAS Design & Installation****Prerequisite:** BUAS 1030

4 Credits

This course deals with how BAS systems are designed and properly installed and commissioned. Topics include BAS contracting, GA Lien Law, NEC code, low voltage contractor's license requirements, GA state & local codes, cabling practices, selecting device locations, network considerations, conduit requirements, developing a commissioning plan, and BAS system commissioning.

**BUAS 2040 - BAS Integration**

**Prerequisite:** BUAS 1050

5 Credits

This course investigates several BAS integration platforms present in the industry. Topics TCP/IP fundamentals, Modbus, Lonworks, BACnet, and Niagara AX.

**BUAS 2050 - BAS Internship**

**Prerequisite:** BUAS 1060

3 Credits

This course allows the student to gain real-world experience by working with a local BAS company in the field for 8 hours per week, or alternatively, an equivalent number of hours on real-world automation projects at the college.

**BUSN 1100 - Introduction to Keyboarding**

3 Credits

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.

**BUSN 1180 - Computer Graphics & Designs**

3 Credits

Introduces how to: design and transmit electronic communications; create graphics on-line; and insert animation and sound to computer-generated charts, graphs, and diagrams.

**BUSN 1190 - Digital Technologies in Busn**

**Prerequisite:** COMP 1000

2 Credits

Provides an overview of digital technology used for conducting business. Students will learn the application of business activities using various digital platforms.

**BUSN 1230 - Legal Terminology**

3 Credits

This course introduces the spelling pronunciation definition and usage of basic legal terms. The course broadly covers general law terms as well as specialized legal terminology. Topics include: word origins word building abbreviations and symbols correct spelling pronunciation and meanings of terminology related to the court system contracts family law real estate litigation wills/probate bankruptcy and other areas of the law.



**BUSN 1240 - Office Procedures**

**Prerequisite:** COMP 1000

3 Credits

Emphasizes essential skills required for the business office.

**BUSN 1250 - Records Management**

3 Credits

Introduces records management concepts for use in any office environment. Topics include: Basic Records Management Concepts; Alphabetic, Numeric, Subject, and Geographic Filing; and Records Retention, Transfer, and Disposition of Records.

**BUSN 1300 - Introduction to Business**

3 Credits

Introduces organization and management concepts of the business world and in the office environment. Topics include business in a global economy, starting and organizing a business, enterprise management, marketing strategies and financial management.

**BUSN 1310 - Introduction to Business Culture**

3 Credits

Provides skills and attitudes necessary to function effectively both professionally and interpersonally in the workplace. Topics include: health and wellness; exercise; stress, time, and money management; work ethics; wardrobe on the job; workplace communications; and business entertainment, travel, and international culture.

**BUSN 1320 - Business Interaction Skills**

3 Credits

This course equips participants with the tools to communicate and interact more effectively in person, in writing and on the telephone with both internal and external customers. Participants also learn how to work in teams to create a collaborative environment for accomplishing goals. This course consist of the following: language of business, communication skills, working with information, business writing, team and collaborative skills, and resolving interpersonal conflict.

**BUSN 1330 - Personal Effectiveness**

3 Credits

This course focuses on the skills needed to be effective in the corporate environment. The participants learn the importance of effectively managing time, stress and change as they relate to work behavior and quality of work. Topics include: time management, stress management, interview skills/job development, resume writing, and managing change.

**BUSN 1340 - Customer Service Effectiveness**

3 Credits

This course emphasizes the importance of customer service throughout all businesses. Topics include: customer service challenges and problem solving; strategies for successful customer service; effective communication and dealing with difficult customers; empowerment, motivation, and leadership; customer retention and satisfaction measurement; and excellence in customer service.

**BUSN 1400 - Word Processing Applications****Prerequisite:** COMP 1000

4 Credits

PREREQUISITE: BUSN 1100 OR THE ABILITY TO KEY 25 GWAM (gross words a minute) ON 3-MINUTE TIMINGS WITH NO MORE THAN 3 ERRORS. This course covers the knowledge and skills required to use word processing software through course demonstrations laboratory exercises and projects. Minimal document keying will be necessary as students will work with existing documents to learn the functions and features of the word processing application. Topics and assignments will include: word processing concepts customizing documents formatting content working with visual content organizing content reviewing documents sharing and securing content.

**BUSN 1410 - Spreadsheet Concepts and Appli****Prerequisite:** COMP 1000

4 Credits

This course covers the knowledge and skills required to use spreadsheet software through course demonstrations laboratory exercises and projects. Topics and assignments will include: spreadsheet concepts creating and manipulating data formatting data and content creating and modifying formulas presenting data visually and collaborating and securing data.

**BUSN 1420 - Database Applications****Prerequisite:** COMP 1000

4 Credits

This course covers the knowledge and skills to required to use database management software through course demonstrations laboratory exercises and projects. Topics and assignments will include: database concepts structuring databases creating and formatting database elements entering and modifying data creating and modifying queries presenting and sharing data and managing and maintaining databases.

**BUSN 1430 - Desktop Publ&Presentation Appl****Prerequisite:** COMP 1000

4 Credits

This course covers the knowledge and skills required to use desktop publishing (DTP) software and presentation software to create business publications and presentations. Course work will include course demonstrations laboratory exercises and projects. Topics include: desktop publishing concepts basic graphic design publication layout presentation design and practical applications.

**BUSN 1440 - Document Production****Prerequisite:** COMP 1000

4 Credits

Reinforces the touch system of keyboarding placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents. Topics include: reinforcing correct keyboarding technique building speed and accuracy formatting business documents language arts proofreading and work area management.

**BUSN 2160 - Electronic Mail Applications****Prerequisite:** COMP 1000

2 Credits

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 and Task Management and Security and Privacy.

**BUSN 2170 - Web Page Design****Prerequisite:** COMP 1000

2 Credits

This course provides instruction in the concepts necessary for individuals to create and manage professional quality web sites. Topics include: Web Site Creation, Web Page Development and Design, Hyper link Creation, Test, and Repair, Integration, Web Site Navigation, and Web Site Management

**BUSN 2170 - Web Page Design**

2 Credits

This course provides instruction in the concepts necessary for individuals to create and manage professional quality web sites. Topics include: Web Site Creation, Web Page Development and Design, Hyper link Creation, Test, and Repair, Integration, Web Site Navigation, and Web Site Management

**BUSN 2190 - BusnDoc Proofreading&Editing****Prerequisite:** BUSN 1440

3 Credits

Emphasizes proper proofreading and editing for business documents. Topics include: applying proofreading techniques and proofreaders marks with business documents; proper content clarity and conciseness in business documents; and business document formatting.

**BUSN 2200 - Office Accounting**

4 Credits

Introduces fundamental concepts of the accounting cycle for a sole proprietor service business. Topics include: accounting equation analyzing business transactions journalizing and posting transactions accounts receivable and accounts payable subsidiary ledgers financial statements cash control and payroll concepts.

**BUSN 2210 - Applied Office Procedures**

**Prerequisites:** BUSN 1240, BUSN 1400, BUSN 1410, BUSN 1440

**Corequisites:** ACCT 1100, BUSN 2190

3 Credits

This course focuses on applying knowledge and skills learned in 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.

**BUSN 2220 - Legal Administrative Procedure**

**Prerequisite:** BUSN 1230

3 Credits

Emphasizes essential skills required for the legal office. Topics include: legal terminology preparation of legal documents and correspondence ethics and legal office tasks.

**BUSN 2230 - Office Management**

**Prerequisite:** BUSN 1240

3 Credits

Provide students with an overview of management concepts, styles, and skills. Topics include: management styles, leadership traits, ergonomics/workflow, communication channels, business ethics, supervisory techniques, and job performance evaluation techniques.

**BUSN 2240 - Business Administrative Assistant Internship I**

Credits

**BUSN 2250 - Business Administrative Assistant Internship II**

Credits

**BUSN 2300 - Medical Terminology**

2 Credits

Introduces the basic spelling and pronunciation of medical terms, and the use of these terms as they relate to anatomy, treatment, surgery, and drugs. Topics include: word analysis, word elements, spelling, pronunciation, and semantics.

**BUSN 2340 - Healthcare Admin. Procedures****Prerequisite:** ALHS 1090

4 Credits

Emphasizes essential skills required for the business healthcare office. Introduces the knowledge, skills, and procedures needed to understand billing purposes. Introduces the basic concept of business healthcare administrative assisting and its relationship to the other health fields. Emphasizes healthcare regulations and ethics; and, the healthcare 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 business healthcare procedures, healthcare regulations ethics, healthcare records management, scheduling appointments, health insurance, billing/collection, work area management, resource utilization, and office equipment

**BUSN 2370 - Healthcare Coding**

3 Credits

Provides an introduction to medical coding skills and the application of international coding standards as it applies to healthcare billing for insurance purposes. Topics include: current procedural terminology, International Classification of Diseases, code book formats, coding techniques, formats of the ICD and CPT manuals, and collections.

**BUSN 2375 - Healthcare Coding****Prerequisite:** BUSN 2300

3 Credits

Provides an introduction to medical coding skills and the application of international coding standards as it applies to healthcare billing for insurance purposes. Topics include: current procedural terminology, International Classification of Diseases, code book formats, coding techniques, formats of the ICD and CPT manuals, and collections.

**CARP 1000 - Fundamental Carpentry Skills**

3 Credits

Fundamental Carpentry Skills provides the basic carpentry instruction all other carpentry skills build upon. Topics include orientation to the trade, materials and fasteners, hand and power tools, drawings and specifications, building layout, and building foundations.

**CARP 1015 - Structural Framing I****Prerequisites:** CARP 1000, COFC 1080

3 Credits

Structural Framing describes the layout and construction procedures for floor, wall, and stair systems, including how to read and interpret construction drawings and specifications, and how to identify different types of framing systems, components, and system materials. It also covers how to estimate the amount of materials needed for an assembly and on some common alternative framing systems.

**CARP 1020 - Structural Framing II**

**Prerequisites:** CARP 1000, COFC 1080

3 Credits

Structural Framing II completes the "rough-in" phase of building a structure. This course includes ceiling and roof framing as well as building envelope systems.

**CARP 1025 - Intermediate Carpentry**

**Prerequisites:** CARP 1000, COFC 1080

5 Credits

Intermediate Carpentry Techniques completes the "rough-in" phase of building a structure. This course includes building envelope systems, stair framing, roof coverings, thermal and moisture protection, exterior finishes, and reading commercial drawings.

**CARP 1035 - Advanced Carpentry I**

**Prerequisites:** CARP 1000, COFC 1080

5 Credits

Advanced Carpentry I continues the progression of carpentry skills to include specialty skills including drywall installation and finishing, suspended ceilings, door and drawer hardware, interior finish trim procedures, and cabinet installation.

**CARP 1055 - Advanced Carpentry II**

**Prerequisites:** CARP 1000, COFC 1080

4 Credits

Advanced Carpentry II contains the culmination of skills needed to be a journeyman carpenter. Topics in this course include advanced roof and wall systems, advanced stair systems, and crew leader skills.

**CARP 1056 - Advanced Commercial Carpentry**

**Prerequisites:** CARP 1000, COFC 1080

4 Credits

Advanced Commercial Carpentry contains the culmination of skills needed to be a journeyman commercial carpenter. Topics in this course include rigging equipment and practices, advanced roof systems, introduction to welding, commercial finish work, and crew leader skills.

**CARP 1400 - Carpeting Installation**

3 Credits

This course introduces students to the flooring installation industry and covers the skills needed to perform carpet installations. Topics covered include carpet installation tools, proper use of tools, installation of tack strips and cushions, measuring and estimating, identifying, cutting, and seaming of various types of carpet materials.

**CARP 1405 - Resilient Flooring Installation**

3 Credits

This course introduces students to the types of flooring and installation procedures used in the resilient flooring processes. Topics covered include resilient flooring types, moisture identification, cutting, adhesives and grout, dead zone and floating floors, and measuring and estimating. This course also teaches and allows for OSHA 10 certification of students.

**CARP 1410 - Hardwood Flooring Installation**

3 Credits

Provides instruction in the principles and practices of hardwood flooring installation. Emphasis is placed on the acquisition of knowledge and skills in the areas of nail, glue, and floating installation. A modeled real world lab environment is utilized to reinforce and apply learned skills and techniques.

**CARP 1415 - Tile Flooring Installation**

3 Credits

Provides instruction in the principles and practices of tile flooring installation. Emphasis is placed on the acquisition of knowledge and skills in the areas of safety, tools, substrate prep, layout, tile cutting, mortar and grout application. A modeled real world lab environment is utilized to reinforce and apply learned skills and techniques.

**CHEM 1151 - Survey of Inorganic Chem Lab**

1 Credits

Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements structure of matter chemical bonding chemical reactions gas laws liquid mixtures acids and bases salts and buffers and nuclear chemistry.

**CHEM 1151 - Survey of Inorganic Chem Lab**

1 Credits

Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements structure of matter chemical bonding chemical reactions gas laws liquid mixtures acids and bases salts and buffers and nuclear chemistry.

**CHEM 1152 - Survey of Org Chem/Biochem Lab****Prerequisite:** CHEM 1151

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1152. The laboratory exercises for this course include basic principles of organic chemistry hydrocarbons hydrocarbon derivatives heterocyclic rings and alkaloids carbohydrates lipids and fats proteins nucleic acids and intermediary metabolism.

**CHEM 1152 - Survey of Org Chem/Biochem Lab**

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1152. The laboratory exercises for this course include basic principles of organic chemistry hydrocarbons hydrocarbon derivatives heterocyclic rings and alkaloids carbohydrates lipids and fats proteins nucleic acids and intermediary metabolism.

**CHEM 1211 - Chemistry Lab 1**

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1211. The laboratory exercises for this course include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws.

**CHEM 1211 - Chemistry Lab 1**

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1211. The laboratory exercises for this course include measurement, physical and chemical properties of matter, atomic structure, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws.

**CHEM 1212 - Chemistry Lab II****Prerequisite:** CHEM 1212

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1212. The laboratory exercises for this course include equilibrium theory, kinetics, thermodynamics, solution chemistry, acid-base theory, and nuclear chemistry.

**CHEM 1212 - Chemistry Lab II**

1 Credits

Selected laboratory exercises paralleling the topics in CHEM 1212. The laboratory exercises for this course include equilibrium theory, kinetics, thermodynamics, solution chemistry, acid-base theory, and nuclear chemistry.

**CIST 1001 - Computer Concepts**

4 Credits

Provides an overview of information systems computers and technology. Topics include: Information Systems and Technology Terminology Computer History Data Representation Data Storage Concepts Fundamentals of Information Processing Fundamentals of Information Security Information Technology Ethics Fundamentals of Hardware Operation Fundamentals of Networking Fundamentals of the Internet Fundamentals of Software Design Concepts Fundamentals of Software (System and Application) System Development Methodology Computer Number Systems conversion (Binary and Hexadecimal) Mobile computing.

**CIST 1101 - Working with Microsoft Windows**

Credits



**CIST 1122 - Hardware Install&Maintenance**

4 Credits

This course serves to provide students with the knowledge of the fundamentals of computer technology networking and security along with the skills required to identify hardware peripheral networking and security components with an introduction to the fundamentals of installing and maintaining computers. Students will develop the skills to identify the basic functionality of the operating system perform basic troubleshooting techniques utilize proper safety procedures and effectively interact with customers and peers. This course is designed to help prepare students for the CompTIA A+ certification examination.

**CIST 1130 - Operating Systems Concepts**

3 Credits

Provides an overview of modern operating systems and their use in home and small business environments. Activities will utilize the graphical user interface (GUI) and command line environment (CLI) This will include operating system fundamentals; installing configuring and upgrading operating systems; managing storage file systems hardware and system resources; troubleshooting diagnostics and maintenance of operating systems; and networking.

**CIST 1141 - Network+ Preparation****Prerequisites:** CIST 1122, CIST 1401

4 Credits

To fundamentally prepare the student for the CompTIA Network+ certification examination. Provides the student with the fundamentals of configuring, installing, diagnosing, repairing, upgrading, and maintaining local and wide area networks. Topics include: an introduction to networking, networking standards and the OSI model, network protocols, transmission basics and networking media, physical and logical topologies, networking hardware, WANs and remote connectivity, network operating systems and Windows 2000 - based networking, NetWare - based networking, networking with UNIX, networking with TCP/IP and the Internet, troubleshooting network problems, maintaining and upgrading a network, ensuring integrity and availability, network security and managing network design and implementation.

**CIST 1200 - Database Management**

4 Credits

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.

**CIST 1210 - Intro to Oracle Databases****Prerequisite:** CIST 1001

4 Credits

This course provides an introduction to the Oracle database management system platform and to Structured Query Language (SQL). Topics include database vocabulary normalization Oracle DML and DDL statements SQL Statements views and constraints.

### **CIST 1220 - Structured Query Language (SQL)**

4 Credits

Includes basic database design concepts and solving database retrieval and modification problems using the SQL language. Topics include: database Vocabulary Relational Database Design Date retrieval using SQL Data Modification using SQL Developing and Using SQL Procedures.

### **CIST 1305 - Program Design and Development**

3 Credits

An introductory course that provides problem solving and programming concepts for those that develop user applications. An emphasis is placed on developing logic troubleshooting and using tools to develop solutions. Topics include: problem solving and programming concepts structured programming the four logic structures file processing concepts and arrays.

### **CIST 1401 - Computer Networking Fundament**

4 Credits

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 including local area networks wide area networks protocols topologies transmission media and security. 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. Topics include: basic knowledge of networking technology network media and topologies network devices network management network tools and network security.

### **CIST 1510 - Web Development I**

4 Credits

Explores the concepts of Hypertext Markup Language (HTML) Cascading Style Sheets (CSS) XML and XHTML following the current standards set by the World Wide Web Consortium (W3C) for developing inter-linking web pages that include graphical elements hyperlinks tables forms and image maps.

### **CIST 1520 - Scripting Technologies**

**Prerequisite:** CIST 1510

4 Credits

Students learn how to use the features and structure of a client side scripting language, explore the features on server side scripting and develop professional web applications that include special effects, interactive, dynamic, validated, and secure forms.

### **CIST 1530 - Web Graphics I**

3 Credits

Students will explore how to use industry standard or open source graphics software programs to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays. The course includes a final project that allows students to develop a Web page/site using the chosen software.

**CIST 1601 - Information Security Fund**

3 Credits

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.

**CIST 1602 - Security Policies&Procedures**

3 Credits

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.

**CIST 2122 - A+ Preparation****Prerequisite:** CIST 1122

3 Credits

This course serves to prepare students to complete the CompTIA A+ certification examination. It will provide students with advanced knowledge of computer technology networking and security fundamentals. Students will possess the skills required to identify hardware peripherals networking components and security components. Students will understand basic operating system functionality and troubleshooting methodology while practicing proper safety procedures and effective interaction skills with customers and peers.

**CIST 2127 - Comprehen Word Processing Tech**

3 Credits

This course provides students with knowledge in word processing software. Word processing topics include creating, customizing, and organizing documents by using formatting and visual content that is appropriate for the information presented.

**CIST 2128 - Comprehensive Spreadsheet Tech**

3 Credits

This course provides students with knowledge in spreadsheet software. Spreadsheet topics include creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually, and collaborating on and securing data.

**CIST 2129 - Comprehensive Database Tech**

4 Credits

This course provides a study of databases beginning with introductory topics and progressing through advanced development techniques. Topics include: advanced database concepts, advanced development techniques, data integration concepts, and troubleshooting and supporting databases.

**CIST 2130 - Desktop Support Concepts**

3 Credits

This course is designed to give an overview to Desktop Support Management.

**CIST 2212 - Oracle Database Admin I**

**Prerequisite:** CIST 1210

4 Credits

This course enables the database student to implement and administer Oracle databases. Topics include: oracle logical architecture and administration tools Oracle physical architecture and data dictionary views performance monitoring and database security.

**CIST 2214 - Oracle Database Admin II**

**Prerequisite:** CIST 2212

4 Credits

This course introduces participants to the critical task of planning and implementing database backup and recovery strategies. Topics include Backup and Recovery Resource Management and Performance tuning Globalization Support and Diagnostic Tools.

**CIST 2216 - Oracle Advanced Topics**

**Prerequisite:** CIST 1210

4 Credits

This course enables the database student to integrate database content and theory. The student will use Oracle application development tools and utilities to create and manage realistic database development projects. Topics include SQL and PL/SQL Oracle Forms Database Reports and Integrated Database Applications.

**CIST 2222 - Admin Microsoft SQL Server**

**Prerequisite:** CIST 2414

4 Credits

Provides instruction on how to administer a Microsoft SQL server. Topics include: planning installation and configuration configuring and managing security managing and maintaining data monitoring and optimization and troubleshooting.

**CIST 2224 - DesignImplemDatabases-SQL Serv**

**Prerequisite:** CIST 1220

4 Credits

Shows how to design and implement a database solution using Microsoft SQL Server. Topics include: developing logical data model and physical design creating data services creating physical database and maintaining a database.

**CIST 2311 - Visual Basic I****Prerequisite:** CIST 1305

4 Credits

Visual Basic I introduces event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsofts Visual Studio development environment. Topics include numeric data types and variables decision making structures arrays validating input with strings and functions repetition and multiple forms test files lists and common dialog controls.

**CIST 2312 - Visual Basic II****Prerequisite:** CIST 2311

4 Credits

Visual Basic II 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.

**CIST 2313 - Visual Basic III****Prerequisite:** CIST 2312

4 Credits

This course provides a look at advanced Web Programming techniques using Microsoft Visual Basic. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIST 2341 - C# Programming I****Prerequisite:** CIST 1305

4 Credits

This course is designed to teach the basic concepts and methods of objected-oriented design and C#.Net programming. Use practical problems to illustrate C#.Net application building techniques and concepts. Develop an understanding of C#.Net vocabulary. Create an understanding of where C#.Net fits in the application development landscape. Create an understanding of the C#.Net Development Environment Visual Studio and how to develop debug and run C#.Net applications using the Visual Studio. Continue to develop student's programming logic skills. Topics include: C#.NET Language History C#.NET Variable Definitions C#.NET Control Structures C#.NET Functions C#.NET Classes C#.NET Objects and C#.NET Graphics.

**CIST 2342 - C# Programming II****Prerequisite:** CIST 2341

4 Credits

This course is an intermediate course in C#.NET Programming. It is assumed that the student knows the C#.NET syntax as well as basic object oriented concepts. Intermediate C#.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 databases. Advanced features of C# windows programming are explored.

**CIST 2361 - C++ Programming I****Prerequisite:** CIST 1305

4 Credits

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 arrays pointers structures managing data and developing programs.

**CIST 2362 - C++ Programming II**

4 Credits

Develops skills for the programmer 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 Introduction to C++ Programming. Topics include: objects classes inheritance overloading polymorphism streams containers and exceptions.

**CIST 2371 - Java Programming I****Prerequisite:** CIST 1305

4 Credits

This course is designed to teach the basic concepts and methods of object-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. 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.

**CIST 2372 - Java Programming II****Prerequisite:** CIST 2371

4 Credits

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.

**CIST 2372 - Java Programming II**

4 Credits

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.

**CIST 2373 - Java Programming III****Prerequisite:** CIST 2372

4 Credits

This course is a course in building Web Applications using Java Enterprise Edition (JEE). It is assumed that the student knows Java Standard Edition as the concepts and techniques build on that foundation. The student will install Web, Application and Database servers. The student will learn to build Web Applications using JEE technologies, such as Servlets, Java Server Pages and Enterprise JavaBeans.

**CIST 2381 - Mobile Application Development****Prerequisite:** CIST 1305

4 Credits

This course explores mobile guidelines, standards, and techniques. This course includes design and development techniques for multiple mobile devices, platforms, and operating systems. Students will develop mobile applications using state of practice development tools, languages and devices.

**CIST 2382 - Mobile App Development II****Prerequisite:** CIST 2381

4 Credits

This course provides an opportunity to develop a working knowledge of mobile programming that includes creating, editing, executing, and debugging mobile applications. Students learn how to use mobile development technologies and toolkits to develop mobile applications.

**CIST 2383 - User Experience****Prerequisite:** CIST 2382

4 Credits

This course introduces students to Human-Computer Interaction (HCI) concepts and best-practices used in mobile application development with purpose of improving user experiences. In this course students will utilize User Experience Design (UXD) for developing mobile applications in any mobile application platform. The UXD concepts explored in this course will include visual design, information architecture, interaction design, and usability.

**CIST 2411 - Microsoft Client**

4 Credits

Provides the ability to implement administrator and troubleshoot Windows Professional Client as a desktop operating system in any network environment.

**CIST 2412 - MS Server Directory Services**

4 Credits

Provides students with knowledge and skills necessary to install configure manage support and administer Windows Server. Topics include server deployment server management monitor and maintain servers application and data provisioning and business continuity and high availability.

**CIST 2413 - Microsoft Server Server Infrass**

4 Credits

Provides students with knowledge and skills necessary to install configure manage support and administer Microsoft Directory Services.

**CIST 2414 - Microsoft Server Administrator**

4 Credits

Provides students with knowledge and skills necessary to install configure manage support and administer a Microsoft network infrastructure.

**CIST 2431 - UNIX/Linux Introduction**

4 Credits

This course introduces the UNIX/Linux operating system skills necessary to perform entry-level user functions. Topics include: history of UNIX/Linux 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 UNIX/Linux manual help pages using the UNIX/Linux 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.

**CIST 2432 - UNIX/Linux Server**

4 Credits

This course covers UNIX/Linux operating system administration skills necessary to perform administrative functions. Topics include: installing UNIX/Linux 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.



**CIST 2433 - UNIX/Linux Advanced Server****Prerequisite:** CIST 2432

4 Credits

This course covers UNIX/Linux operating system advanced administration skills necessary to perform advanced administrative functions. Topics include: understanding UNIX/Linux networking managing network printing configuring and troubleshooting TCP/IP on UNIX/Linux configuring DHCP DNS a Web server an FTP server an E-mail server and understanding NIS (yp) 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.

**CIST 2434 - UNIX/Linux Scripting****Prerequisite:** CIST 2431

4 Credits

Course covers UNIX/Linux shell programming techniques necessary for UNIX/Linux System Administrators to understand and create shell script programs in a UNIX/Linux environment. Topics include: shell variables running shell script program conditional processing looping structures 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.

**CIST 2451 - Introduction to Networks-CISCO**

4 Credits

This course introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the internet and across modern computer networks - including IP addressing and Ethernet fundamentals. By the end of the course, students can build simple local area networks (LANs) that integrate IP addressing schemes, foundational network security, and perform basic configurations for routers and switches.

**CIST 2452 - Cisco Switch, Routing, & Wireless****Prerequisite:** CIST 2451

4 Credits

This course focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

**CIST 2453 - Enterprise Network, Sec, Autom****Prerequisite:** CIST 2452

4 Credits

This course describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. Major topics are wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access. The course also introduces software-defined networking, virtualization, and automation concepts that support the digitalization of networks. Students gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.

**CIST 2454 - Cisco Connecting Networks****Prerequisite:** CIST 2453

4 Credits

This course discusses the WAN technologies and network services required by converged applications in a complex network. Topics include introduction to WANs, private WAN technologies and protocols, Network Address Translation (NAT), public WAN technologies and protocols, network monitoring, and network troubleshooting.

**CIST 2480 - AWS Cloud Foundations**

4 Credits

AWS Academy Cloud Foundations is intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. It provides a detailed overview of cloud concepts, AWS core services, security, architecture, pricing, and support.

**CIST 2481 - AWS Cloud Architecting****Prerequisite:** CIST 2480

4 Credits

AWS Academy Cloud Architecting covers the fundamentals of building IT infrastructure on AWS. The course is designed to teach solutions architects how to optimize their use of the AWS Cloud by understanding AWS services and how they fit into cloud-based solutions. Although architectural solutions can differ depending on the industry, type of application, and size of the business, this course emphasizes best practices for the AWS Cloud that apply to all of them. It also recommends various design patterns to help you think through the process of architecting optimal IT solutions on AWS. Throughout the course, students will explore case studies that showcase how some AWS customers have designed their infrastructures and the strategies and services that they have implemented. Finally, this course provides opportunities for students to build a variety of infrastructures through a guided, hands-on approach.

**CIST 2482 - AWS Cloud Developing****Prerequisite:** CIST 2480

4 Credits

AWS Cloud Developing is designed to help students gain technical expertise in development using cloud technologies and prepare them to take the AWS Certified Developer Associate level AWS Certification exam.

**CIST 2483 - AWS Data Analytics****Prerequisite:** CIST 2480

4 Credits

AWS Academy Data Analytics is a series of lab exercises that teach students how to conduct Big Data analysis with practical, real-world examples. Students will learn how to analyze extremely large data sets, and to create visual representations of that data, using a case-study approach.

**CIST 2484 - AWS Cloud Operations****Prerequisite:** CIST 2480

4 Credits

AWS Academy Cloud Operations is designed to prepare participants to pursue entry-level DevOps, support, and cloud operations roles. It will also help prepare them to take the AWS SysOps Administrator Associate exam. Emphasizing best practices in the AWS Cloud and recommended design patterns, this course will teach students how to solve problems and troubleshoot various scenarios. The course will show students how to create automatable and repeatable deployments of networks and systems on AWS and covers specific AWS features and tools related to configuration and deployment. With case studies and demonstrations, students will learn how some AWS customers design their infrastructures and implement various strategies and services. Students will also have the opportunity to build a variety of infrastructures via guided, hands-on activities.

**CIST 2510 - Web Technologies**

3 Credits

In Web Technologies, students will investigate one or more software packages that help automate Web content creation. Students will explore and utilize various features of software packages such as CSS, multimedia incorporation, scripting technologies, form creation, search functionality, advanced image techniques and database connectivity.

**CIST 2531 - Web Graphics II**

3 Credits

Students will further explore how to use an industry standard or open-source graphics software program to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays.

**CIST 2550 - Web Development II****Prerequisites:** CIST 1210, CIST 1510

4 Credits

Web Development II 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 PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulating data in a database, working with a relational database via Open Database Connectivity (ODBC), working with different database systems, developing forms and applications to interact with a database server(s), modifying data in a database, and controls and validation.

**CIST 2601 - Implementing Operating Systems**

**Prerequisites:** CIST 1401, CIST 1601

4 Credits

This course will provide knowledge and the practical experience necessary to configure the most common server platforms. Lab exercises will provide students with experience of establishing operating systems security for the network environment.

**CIST 2602 - Network Security**

**Prerequisite:** CIST 1401

4 Credits

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.

**CIST 2611 - Network Defense and Countermeasures**

**Prerequisites:** CIST 1401, CIST 1601

4 Credits

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, managing a firewall, and detecting and preventing network intrusions.

**CIST 2612 - Computer Forensics**

**Prerequisites:** CIST 1122, CIST 1601

4 Credits

This course examines the use of computers in the commission of crimes collection analysis and production of digital evidence. Students will use computer resources to explore basic computer forensic investigation techniques.

**CIST 2613 - Ethical Hacking and Penetration Testing**

**Prerequisite:** CIST 1601

4 Credits

This course teaches students the skills needed to obtain entry-level security specialist jobs. It provides a hands-on introduction to ethical hacking, and penetration testing. It is for individuals who want to enhance their information security skill set and help meet the growing demand for security professionals. Topics include network and computer attacks, footprinting and social engineering, port scanning, enumeration, OS vulnerabilities, hacking web servers, hacking wireless networks, cryptography and network protection systems.

**CIST 2730 - Introduction to 3D Animation**

4 Credits

This course is an introduction to the creation and manipulation of 3D objects. Topics include 3D types and tools, 3D objects, and inverse kinematics.

**CIST 2731 - Intermediate 3D Animation**

4 Credits

This course is an intermediate class on the creation and manipulation of 3D objects. Topics include: 3D types and tools, UV mapping, and texture and animate 3D objects.

**CIST 2732 - 3D CHaracter Animation**

4 Credits

This course covers 3D character creation and animation using key-framing and inverse kinematics. Topics include character setup, character design and animation.

**CIST 2733 - 3D Graphics for Gaming I**

4 Credits

This course covers the creation and manipulation of 3D objects and animations in an actual 3D game engine using the latest in industry standard or open source software. Topics covered include graphic types, organizational methods, drawing tools, object modeling, character rigging, bones, nurb manipulation and normal mapping.

**CIST 2734 - 3D Graphics for Gaming II**

4 Credits

This course is an intermediate look at the creation and manipulation of 3D objects and animations in an actual 3D game engine using the latest in industry standard or open source software. Topics covered include graphic types, organizational methods, drawing tools, advanced level design and material construction, volumes, physics and particle effects.

**CIST 2736 - Introduction to Motion Capture**

4 Credits

This course covers the creation of 3D objects and the use of Motion Capture and its use in a 3D project. Topics include motion capture camera/sensor setup and 3D integration.

**CIST 2740 - Introduction to Game Development****Prerequisites:** CIST 1001, CIST 1305

4 Credits

Introduction to video games genres, gaming evolution, gaming attributes, market environment, competition analysis, design document development, asset pipeline (development of game components), game mechanics (rules), technology architecture, platforms, story composition, interactive dialogue, statistical game balancing, project planning and prioritization for development schedules, creation of non-electronic rapid prototypes with emphasis on the student's first exposure to game creation and mechanics.

**CIST 2741 - Advanced Game Development****Prerequisite:** CIST 2740

3 Credits

Advanced Game Design incorporates all of the basic game design elements into a continuing production process, taking an idea from inception through completion in a timely and cost effective fashion. Each student will be expected to fulfill the duties of each member of a game design team, learning every aspect of the process in order to be able to substitute wherever and whenever necessary. It is suggested that the quality and completeness of a single, class-wide project have some universal impact on the grades of each student, further enforcing the notion that every team member not only participates in the project, but that the project itself affects in the success of each team member. Lab will use industry tools to rapidly prototype ideas into practical game mechanics and provide the foundation for future game projects.

**CIST 2750 - Game Design**

3 Credits

This course covers the history of the Video Game Industry and gives a hands on approach to the design methodologies used to create an interactive 2D and 3D video game. Topics include story and script development, storyboarding, character analysis and creation, interface and sound design and game documentation.

**CIST 2751 - Game Development I**

3 Credits

This course covers the design and creation of a 2D interactive game using the latest in industry standard. Topics include game development and concepts, sprite creation using .png and .giff formats, object placement and orientation, eventdriven programming, pseudocode and level and class design.

**CIST 2752 - Game Development II**

3 Credits

This course covers the design, creation and implementation of 2D and 3D elements as well as programming concepts into an interactive application. Topics include interface design, 3D object creation, game flow and scripting.

**CIST 2759 - Mathematics for Game Developers**

3 Credits

This course emphasizes the math skills needed in 2D game design. These skills include trigonometric properties, vectors, and motion in one dimension.

**CIST 2921 - IT Analysis Design&Proj Manage**

4 Credits

IT Analysis Design and Project Management will provides a review and application of systems life cycle development methodologies and project management. Topics include: Systems planning systems analysis systems design systems implementation evaluation and project management.

**CIST 2950 - Web Systems Project**

3 Credits

CIST 2950 is a capstone course providing a realistic experience for students working in a team to develop a complete web systems project.

**CLBT 1010 - Intro to Clinical Lab Tech**

2 Credits

Introduces students to the terms concepts procedures and equipment used in a professional clinical laboratory. Topics include: professional ethics and regulatory agencies; laboratory safety equipment and techniques; phlebotomy/specimen processing; related lab math quality control concepts; process improvement; documentation and computer usage; and point of care testing. Practical experience in phlebotomy will be provided in the institution laboratory and/or the clinical setting.

**CLBT 1030 - Urinalysis/Body Fluids**

2 Credits

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: fundamental theory of urinalysis; basic urinalysis tests; correlation of urinalysis to disease states; related lab math; body fluid tests; special urinalysis and related testing; and safety and quality control.

**CLBT 1040 - Hematology/Coagulation****Prerequisite:** BIOL 2113

5 Credits

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 test related lab math correlation of test results to disease states coagulation and fibrinolysis instrumentation for hematology and coagulation critical values and blood cell dycrasias safety and quality control and process improvement.

### **CLBT 1050 - Serology/Immunology**

**Prerequisite:** CLBT 1010

3 Credits

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 related lab math common serological techniques safety and quality control and process improvement.

### **CLBT 1060 - Immunoematology**

**Prerequisite:** CLBT 1050

4 Credits

Provides an in-depth study of immunoematology principles and practices as applicable to medical laboratory technology. Topics include: genetic theory and clinical applications immunology donor unit collection related lab math pre-transfusion testing management of disease states and transfusion reactions safety and quality control and process improvement.

### **CLBT 1070 - Clinical Chemistry**

**Prerequisite:** CLBT 1010

4 Credits

Develops concepts and techniques of clinical chemistry applicable to medical laboratory technology. Topics include: carbohydrates electrolytes and acid-base balance nitrogenous compounds related lab math enzymes and endocrinology liver functions lipids toxicology and therapeutic drug monitoring safety and quality control correlation of disease states process improvement (team approach) and critical thinking skills.

### **CLBT 1080 - Microbiology**

**Prerequisite:** CLBT 1010

5 Credits

Introduces fundamental microbiology and parasitology theory and techniques applicable to disease state identification. Topics include: microbiology fundamentals; basic techniques; clinical microbiology; related lab math; anti-microbial sensitivity; safety and quality control; parasitology; mycology mycobacteriology and virology; correlation of disease states; and process improvement.

### **CLBT 2090 - Clinical Phleb,Urin, and Serum**

**Prerequisite:** CLBT 1010

3 Credits

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: urinalysis tests serological tests and techniques blood and specimen processing correlation of test results to disease states safety and quality control and quality assurance. The clinical practicum is implemented through the use of written training plans written performance evaluation and coordinated supervision.



**CLBT 2100 - Clinic Immunohematology Pract****Prerequisite:** CLBT 1060

4 Credits

Provides students with an opportunity for in-depth application and reinforcement of immunohematology 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 processing; slide and tube immunological techniques; criteria for special techniques; component and therapy practices; management of disease states; transfusion complications; safety; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans written performance evaluation and coordinated supervision.

**CLBT 2110 - Clinic Hemat/Coagulation Pract****Prerequisite:** CLBT 1040

4 Credits

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; and process improvement. The clinical practicum is implemented through the use of written training plans written performance evaluation and coordinated supervision.

**CLBT 2120 - Clinical Microbiology Practicu****Prerequisite:** CLBT 1080

4 Credits

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; safety; documentation/quality control; and process improvement. The clinical practicum is implemented through the use of written training plans written performance evaluation and coordinated supervision.

**CLBT 2130 - Clinical Chemistry Practicum****Prerequisite:** CLBT 1070

4 Credits

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; and process improvement. The clinical practicum is implemented through the use of written training plans written performance evaluation and coordinated supervision.

**CLBT 2200 - Certification Review**

**Prerequisite:** CLBT 1030

2 Credits

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 collection and processing; quality control concepts; computer applications; urinalysis and body fluids; hematology and coagulation; immunology and serology; immunohematology; clinical chemistry in solutions; microbiology; parasitology, mycology, mycobacteriology, and virology; and test taking skills.

**COFC 1011 - Overview of Building Construction Practices and Ma**

3 Credits

This course covers the introduction to a residential construction project from start to finish. Topics to include preparing to build, tools and equipment, building foundations, wood frame construction, completing the structure, finish carpentry, construction specialties, and materials and fasteners used in the construction industry.

**COFC 1020 - Professional Tool Use and Safety**

3 Credits

This course provides instruction in the use of professional tools for the construction trades. Emphasis will be placed on the safe use of each tool discussed. Topics include layout and measuring tools, cutting tools, sawing tools, drilling and boring tools, finishing and fastening tools, general shop tool use, and job site setup.

**COFC 1050 - Construction Print Reading Fundamentals**

3 Credits

This course introduces the reading and interpretation of prints and architectural drawings for all of the construction trades. Topics include types of plans, scales, specifications, conventions, and schedules.

**COFC 1080 - Construction Trades Core**

4 Credits

This course introduces the student to the basic fundamentals of the construction trades. Topics include Basic Safety, Construction Math, Hand and Power Tools, Construction Drawings, Rigging, Materials Handling, and Job-Site Communication and Work Ethic Skills.

**COLL 1000 - Coll Success & Survival Skills**

Credits

**COMP 1000 - Intro to Computer Literacy**

3 Credits

Introduces the fundamental concepts terminology and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include an introduction to computer terminology the Windows environment Internet and email word processing software spreadsheet software database software and presentation software.

**COMP 1001 - Computer Concepts**

Credits

**COSM 1000 - Intro to Cosmetology Theory**

4 Credits

Introduces fundamental both theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: state rules and regulations; state regulatory agency image; bacteriology; decontamination and infection control chemistry fundamentals safety Hazardous Duty Standards Act compliance and anatomy and physiology.

**COSM 1010 - Chemical Texture Services****Corequisite:** COSM 1000

3 Credits

Provides instruction in the chemistry and chemical reactions of permanent wave solutions and relaxers application of permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Topics include: permanent wave techniques chemical relaxer techniques chemistry physical and chemical change safety procedures permanent wave and chemical relaxer application procedures hair analysis scalp analysis permanent wave procedures (in an acceptable time frame) relaxer application (in an acceptable time frame) and Hazardous Duty Standards Act Compliance.

**COSM 1020 - Hair Care and Treatment****Corequisite:** COSM 1000

3 Credits

Introduces the theory procedures and products used in the care and treatment of the scalp and hair disease and disorders and their treatments and the fundamental theory and skills required to shampoo condition and recondition the hair and scalp.

**COSM 1030 - Haircutting****Corequisite:** COSM 1000

3 Credits

Introduces the theory and skills necessary to apply haircutting techniques advanced haircutting techniques proper safety and decontamination precautions hair design elements cutting implements head hair and body analysis and client consultation.

### **COSM 1040 - Styling**

**Corequisite:** COSM 1000

3 Credits

Introduces the fundamental theory and skills required to create shapings pin curls fingerwaves roller placement blow dry styling thermal curling thermal pressing thermal waving artificial hair and augmentation and comb-outs. Laboratory training includes styling training on manikin. Topics include: braiding/intertwining hair styling principles pin curls roller placement fingerwaves skip waves ridge curls blow dry styling thermal curling thermal pressing thermal waving artificial hair and augmentation comb-outs and safety precautions.

### **COSM 1050 - Hair Color**

**Corequisite:** COSM 1000

3 Credits

Introduces the theory and application of temporary semipermanent demipermanent-deposit only and permanent hair coloring hair lightening and color removal products and application. Topics include: principles of color theory hair structure color tone classifications of color hair lightening color removal application procedures safety precautions client consultation product knowledge haircolor challenges corrective solutions and special effects.

### **COSM 1060 - Fundamentals of Skin Care**

**Corequisite:** COSM 1000

3 Credits

This course provides a comprehensive study in care of the skin for theory and practical application. Emphasis will be placed on client consultation, safety precautions, skin conditions, product knowledge, basic facials, facial massage, corrective facial treatments, hair removal, and make-up application. Other topics in this course include advanced skin treatments in electrotherapy, light therapy, galvanic current, high frequency, and microdermabrasion.

### **COSM 1070 - Nail Care and Advanced Techniques**

**Corequisite:** COSM 1000

3 Credits

Provides training in manicuring, pedicuring and advanced nail techniques. Topics include: implements, products and supplies, hand and foot anatomy and Physiology, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions and practices, and advanced nail techniques (wraps/tips/acrylics).

### **COSM 1080 - Physical Hair Services Practicum**

**Prerequisites:** COSM 1040, COSM 1000, COSM 1020, COSM 1030

3 Credits

Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is required by the Georgia State Board of Cosmetology. This course includes a portion of the required hours for licensure. Topics include: scalp and hair treatments; haircutting; styling; dispensary; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

**COSM 1090 - Hair Services Practicum I****Prerequisites:** COSM 1000, COSM 1010, COSM 1020, COSM 1030, COSM 1040, COSM 1050

3 Credits

This course provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color, foiling, lightening, hair and scalp treatments; haircutting; clipper design, precision cutting, styling; dispensary; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; product knowledge, customer service skills, client retention, State Board Rules and Regulations guidelines, and State Board foundation prep.

**COSM 1100 - Hair Services Practicum II****Corequisite:** COSM 1090

3 Credits

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. Topics include: texture services; permanent waving and relaxers; haircolor and lightening; hair and scalp treatment; haircutting; styling; dispensary; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

**COSM 1110 - Hair Services Practicum III****Prerequisite:** COSM 1100

3 Credits

This course 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 requirements for this course may be met in a laboratory setting. Topics include: permanent waving and relaxers; hair color and lightening; hair and scalp treatments; haircutting; dispensary; styling; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation.

**COSM 1115 - Hair Services Practicum IV****Corequisite:** COSM 1110

2 Credits

This course 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 requirements for this course may be met in a laboratory setting. Topics include: permanent waving and relaxers; hair color and lightening; hair and scalp treatments; haircutting; dispensary; styling; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; and state licensure preparation.

**COSM 1120 - Salon Management**

**Corequisite:** COSM 1000

3 Credits

Emphasizes the steps involved in opening and operating a privately owned salon. Topics include: law requirements regarding employment tax payer education / federal and state responsibilities law requirements for owning and operating a salon business business management practices and public relations and career development.

**COSM 1125 - Skin and Nail Care Practicum**

**Corequisites:** COSM 1110, COSM 1115

2 Credits

This course 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. Topics include: skin treatment; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

**COSM 2000 - Instructional Theory&Document**

4 Credits

Introduces the fundamental theory and practices of the cosmetology instructor profession. Emphasis will be placed on fostering and providing educational training in the field of Cosmetology. Topics include: state and local laws rules and regulations professional image effective communication theory of instruction Hazardous Duty Standards Act Compliance career opportunities documentation for attendance grades student service and theory hours basic record keeping and effective use of an advisory committee.

**COSM 2010 - Salon Management**

3 Credits

Emphasizes the steps involved in the operation of a cosmetology program. Topics include: entry-level skills communication skills inventory networking and portfolio design.

**COSM 2020 - Principles of Teaching**

3 Credits

Provides knowledge and application on the principles of teaching. Topics include: educator to learner relationships communication skills emotional influences needs of today\*s learner destructive verses constructive tactics learner motivation and cultivating positive relationships.

**COSM 2030 - Lesson Plans**

**Prerequisite:** COSM 2000

3 Credits

Emphasizes the steps in involved in the development of a lesson plan. Topics include: development of curriculum instructional outcomes components of a lesson plan using visual aids print materials and audio visuals in a lesson plan.

**COSM 2040 - Classroom Management****Prerequisite:** COSM 2000

3 Credits

Emphasis will be placed on classroom management professionalism in the classroom and dynamic clinic teaching. Topics include: classroom management managing learner behavior managing difficult learners classroom arrangements clinic environment and academic advising and counseling.

**COSM 2050 - Instruction and Evaluation****Prerequisite:** COSM 2000

2 Credits

Identify the characteristics of the different learner types teaching methods and measuring student learning outcomes. Topics include: challenges for all learner styles lecturing preparing for a lecture method of teaching testing academic policy rubrics special learner needs multiple-category grading system.

**COSM 2060 - Practicum I****Prerequisite:** COSM 2050

3 Credits

Provides experience necessary for professional development and completion of requirements for Instructor training state licensure. Emphasis will be placed on the trainees display of professional conduct positive attitude and evaluation of learners in a classroom/lab setting. The requirements for this course may be met in a classroom/laboratory setting. Topics include monitoring and evaluating in the following areas: theory/online testing; permanent waving and relaxers; hair color and bleaching; skin scalp and hair treatments; haircutting; dispensary; styling; manicure/pedicure/advanced nail techniques; dispensary; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance.

**COSM 2070 - Practicum II****Prerequisite:** COSM 2030

3 Credits

Provides experience necessary for professional development and completion of requirements for instructor training state licensure requirements. Emphasis will be placed on the trainees display of professional conduct positive attitude and evaluation of learners in a lab setting. The requirements for this course may be met in a classroom/laboratory setting. Topics include monitoring and evaluating in the following areas: permanent waving and relaxers; hair color and lightening; skin scalp and hair treatments; haircutting; dispensary; styling; manicure/pedicure/advanced nail techniques; dispensary; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance.

**CRJU 1010 - Intro to Criminal Justice Tech**

3 Credits

Introduces the development and organization of the criminal justice system in the United States. Topics include: the American criminal justice system; constitutional limitations; organization of enforcement adjudication and corrections; and career opportunities and requirements.

**CRJU 1021 - Private Security**

**Prerequisite:** CRJU 1010

3 Credits

Provides an orientation to the development, philosophy, responsibility, and function of the private security industry. A historical and philosophical perspective of private security will help students better understand the present stage of private security, its principles, its legal authority and its effect on society in general. Topics include: private security: an overview; basic security goals and responsibilities; when prevention fails; and security systems at work: putting it all together

**CRJU 1030 - Corrections**

**Prerequisite:** CRJU 1010

3 Credits

Provides an analysis 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.

**CRJU 1040 - Principles of Law Enforcement**

**Prerequisite:** CRJU 1010

3 Credits

This course examines the principles of the organization administration and duties of federal state and local law enforcement agencies. 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.

**CRJU 1043 - Probation and Parole**

**Prerequisite:** CRJU 1010

3 Credits

This course will cover the history of both juvenile and adult probation as well as the history of parole. The probation and parole systems will be covered generally with a special emphasis on the Georgia systems and related laws. Topics include: history and philosophy of probation and parole; function of the probation and parole systems; Georgia law related to probation and parole; characteristics and roles of probation and parole officers; and special issues and programs of probation and parole.

**CRJU 1052 - CRJU Administration**

**Prerequisite:** CRJU 1010

3 Credits

This course explores the managerial aspects of effective and efficient criminal justice administration. Emphasis is directed towards increasing organizational skills and overcoming interdepartmental and inter-agency non-communication. Topics include: environmental management, human resources, and organizational concerns.



**CRJU 1054 - Police Officer Survival****Prerequisite:** CRJU 1010

3 Credits

This course examines the critical issues involved in the survival of a police officer in all aspects including their physical mental and psychological wellbeing. Emphasis is placed on personal protection skills defensive tactics handcuffing techniques patrol tactics vehicle stops building searches and use of force.

**CRJU 1062 - Methods of Crim Investigation****Prerequisite:** CRJU 1010

3 Credits

This course presents the fundamentals of criminal investigation. The duties and responsibilities of the investigator both in field and in the courtroom are highlighted. Emphasis is placed on techniques commonly utilized by investigative personnel as well as the procedures used for investigating various crimes.

**CRJU 1065 - Community-Oriented Policing****Prerequisite:** CRJU 1010

3 Credits

Presents the fundamentals for the community-oriented policing philosophy, including the comparison of traditional and community policing philosophies; law enforcement and community relationships; importance of political and public support and involvement; attitudinal changes involving the roles of police management, supervisors and line personnel; creation of partnerships with community organizations, businesses, private security, other governmental agencies, and special interest groups; and police problem-solving methodologies. Topics include: foundations of community-oriented policing, partnerships and problem-solving in community-oriented policing, and community-oriented policing projects and programs.

**CRJU 1068 - Criminal Law for Criminal Just****Prerequisite:** CRJU 1010

3 Credits

This course introduces criminal law in the United States but emphasizes the current specific status of Georgia criminal law. The course will focus on the most current statutory contents of the Official Code of Georgia Annotated (O.C.G.A.) with primary emphasis on the criminal and traffic codes. Topics include: historic development of criminal law in the United States; statutory law Georgia Code (O.C.G.A.) Title 16 - Crimes and Offenses; statutory law Georgia Code (O.C.G.A.) Title 40 - Motor Vehicle and Traffic Offenses; and Supreme Court rulings that apply to criminal law.

**CRJU 1075 - Report Writing**

**Prerequisite:** CRJU 1010

3 Credits

Explains and demonstrates the effectiveness of the entire criminal investigation process by the quality of notes reports, and accurate documentation. An examination of what goes into the preparation, content, elements, mechanics, and format of documenting the criminal investigation process. Topics include: Field notes, initial information, observations, evidence, victims, witnesses, property, neighborhood canvass, crime scene, laboratory analysis and results, investigative follow-up, suspect statements, and the characteristics essential to quality report writing.

**CRJU 1400 - Ethic&Cultural Persp-Crim Just**

**Prerequisite:** CRJU 1010

3 Credits

This course provides an exploration ethics and cultural perspectives in criminal justice. In presenting ethics both the individual perspective and the organizational standpoint will be examined. Four areas of ethical decision making opportunities are studied including: law enforcement ethics; correctional ethics; legal profession ethics; and policymaking ethics. The presentation of cultural perspectives is designed to aid law enforcement officers to better understand and communicate with members of other cultures with whom they come in contact in the line of duty. Topics include: defining and applying terms related to intercultural attitudes role-play activities related to intercultural understanding developing interpersonal/intercultural communication competence and development of personal intercultural growth plan.

**CRJU 2020 - Constit Law/Criminal Justice**

**Prerequisite:** CRJU 1010

3 Credits

This course 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 U.S. Constitution the Bill of Rights and the Fourteenth Amendment.

**CRJU 2050 - Intro. to Criminal Procedure**

**Prerequisite:** CRJU 1010

3 Credits

Introduces the substantive law of major crimes against persons and property. 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 Law Enforcement/Overview of Constitutional Law.

**CRJU 2060 - Criminology****Prerequisite:** CRJU 1010

3 Credits

Introduces the nature extent and factors related to criminal behavior and the etiology of criminal offenses and offenders. Topics include: sociological psychological and biological causes of crime; effectiveness of theories in explaining crime; theory integration; and application of theory to selected issues.

**CRJU 2070 - Juvenile Justice****Prerequisite:** CRJU 1010

3 Credits

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.

**CRJU 2090 - Criminal Justice Practicum****Prerequisite:** CRJU 1010

3 Credits

Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue a professional research project supervised by the instructor. Topics include: criminal justice theory applications.

**CRJU 2100 - Criminal Justice Externship****Prerequisite:** CRJU 1010

3 Credits

Provides experiences necessary for further professional development and exposure to related agencies in the criminal justice field. The student will pursue an externship in a related agency supervised by the instructor. Topics include: criminal justice theory applications.

**CRJU 2110 - Homeland Security****Prerequisite:** LETA 1024

3 Credits

The course provides an introduction to the principles of homeland security, roles and responsibilities of constituencies and implications for criminal justice fields. Topics include: intelligence and warning, border and transportation security, domestic counterterrorism, protecting critical infrastructure, defending against catastrophic threats, and emergency preparedness and response.

### **CRJU 2150 - Cybercrime Investigations**

**Prerequisite:** CRJU 2050

3 Credits

Course Description: This course is designed to address the fundamental principles of different types of cybercrime investigations, and the specific procedures used to investigate them. Emphasis is placed on the investigation of specific offenses, the identification of sources of information, and the procedures used to properly collect and store digital evidence. The course is designed to develop a working knowledge of the investigative steps to be followed in a cybercrime investigation, beginning with initial crime scene security and concluding with proper testimony and presentation of evidence in court. This course includes study designed to reinforce important investigative and forensic evidence collection skills.

### **CRJU 2201 - Criminal Courts**

**Prerequisite:** CRJU 2020

3 Credits

This course examines the historical context on the development, functions, and controversies in the courts system. Topics include: introduction to the courts; participants of a trial; courtroom processes; and the post conviction process

### **CTDL 1010 - Fundamentals of Comm Driving**

3 Credits

Fundamentals of Commercial Driving introduces students to the transportation 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.

### **CTDL 1020 - Combin Vehicle Oper&Range Work**

2 Credits

This course familiarizes students with truck instruments and controls and performing basic maneuvers required to drive safely in a controlled environment and on the Driving Range. Each student must receive 12 hours behind the wheel (BTW) instructional time in range operations such as operating a tractor trailer through clearance maneuvers backing turning parallel parking and coupling/uncoupling.

### **CTDL 1030 - Combination Veh Adv Operations**

4 Credits

Advanced Operations develops students\* driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. These safe operating practices are integrated into the development of driving skills on the road. 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 forty four (44) hours BTW instructional time in any combination (with CTDL 1020) of range and street/road driving. Note: state law requires that whenever a combination vehicle is operated on public roads an instructor must be present in the vehicle while the student is driving.

**CTDL 1050 - Straight Truck/Pass Veh Oper**

2 Credits

This course focuses on familiarizing students with truck instruments and controls and performing basic maneuvers required to drive safely in a controlled environment and on the Driving Range. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time in range operations by operating a straight truck or passenger vehicle through clearance maneuvers backing turning parallel parking and coupling and uncoupling.

**CTDL 1060 - StraightTruck/Pass Veh AdvOper**

4 Credits

Advanced Operations focuses on developing students\* driving skills under actual road conditions. The classroom part of the course stresses safe operating practices. These safe operating practices are then integrated into the development of driving skills on the road. 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 forty-four (44) hours BTW instructional time in any combination (with CTDL 1050) of 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.

**DFTG 1015 - Practical Geom&Trig-Drafting****Prerequisite:** MATH 1013

3 Credits

This course introduces and develops basic geometric and trigonometric concepts. Course content will emphasize geometric concepts and trigonometric concepts as they pertain to drafting/CAD.

**DFTG 1101 - CAD Fundamentals**

4 Credits

Establishes safety practices as they relate to a drafting environment. Introduces basic CAD functions while presenting essential principles and practices for line relationships scale and geometric construction.

**DFTG 1103 - Multiview/Basic Dimensioning**

4 Credits

Technical Drawing I provides multiview and pictorial sketching orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.

**DFTG 1105 - 3D Mechanical Modeling**

4 Credits

In the 3D Mechanical Modeling course the student becomes acquainted with concepts of the software related to Parametric modeling for mechanical drafting. The student will develop the skills necessary to create 3D models and presentation/working drawings.

**DFTG 1107 - Technical Drawing II**

4 Credits

Technical Drawing II continues dimensioning skill development and introduces tools for precision measurement and sectional views.

**DFTG 1109 - Technical Drawing III**

4 Credits

Introduces techniques necessary for auxiliary view drawings surface development and developing sheet metal parts. Topics include: primary auxiliary views secondary auxiliary views surface development and developing sheet metal parts.

**DFTG 1111 - Technical Drawing IV**

4 Credits

This course covers the basics of identifying fastening techniques interpreting technical data and create working drawings. Topics include utilization of technical data identifying thread types graphic representation of threaded fasteners utilization of other fastening techniques welding symbol identification and welding symbol usage in working drawings.

**DFTG 1113 - Technical Drawing V**

4 Credits

Technical Drawing V provides knowledge and skills necessary to create working drawings for the manufacture of machine parts. Topics include: detail drawings orthographic assembly drawings pictorial assembly drawings and utilization of technical reference source.

**DFTG 1125 - Architectural Fundamentals**

4 Credits

Introduces architectural fundamental principles and practices associated with architectural styles and drawing. Fundamentals residential and commercial practices will be covered. Topics include: specifications and materials; architectural styles construction drawing practices and procedures dimensioning and scales.

**DFTG 1127 - Architectural 3D Modeling**

4 Credits

In the Architectural 3D Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for Architectural drafting. The student will develop the skills necessary to create 3D models and presentation/constructions drawings.

**DFTG 1129 - Residential Drawing I**

4 Credits

Introduces the essential skills necessary for assessing the expected materials labor requirements and costs for given structures or products also students will be introduced to architectural drawing skills necessary to produce a basic set of construction drawings given floor plan information. Topics include: material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

**DFTG 1131 - Residential Drawing II**

4 Credits

Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include: material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

**DFTG 1133 - Commercial Drawing I**

4 Credits

Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include: structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.

**DFTG 1150 - Introduction to 3D Printing**

Credits

**DFTG 1170 - Rapid Prototyping**

Credits

**DFTG 1175 - Advanced Rapid Prototyping**

Credits

**DFTG 2010 - Engineering Graphics**

4 Credits

Covers the basics of computer terminology input and output devices file formatting file management for CAD software. Introduces students to the fundamentals of geometric construction scale reading line relationship and basic history of the drafting concepts. Student will also be introduced to basic and intermediate CAD commands and procedures and drafting concepts and principals.

**DFTG 2030 - Adv 3D Modeling Architecture**

4 Credits

In this course students become acquainted with concepts of the software related to Presentations for Architectural Renderings and Architectural Animations. Students will demonstrate skills in texture applications, camera angles for presentations, lighting and shadow techniques for architectural renderings, and animation techniques for architectural presentations.

**DFTG 2040 - Adv 3D Modeling Mechanical**

4 Credits

In this course the student becomes acquainted with concepts of the software related to Sheet Metal modeling for mechanical drafting, multi-body parts assemblies, and basic animation techniques for mechanical assembly presentations.

**DFTG 2110 - Print Reading I**

Credits

**DFTG 2130 - Manual Drafting Fundamentals**

2 Credits

This course emphasizes the essential techniques of basic manual drafting. It introduces drafting tools and equipment, scale and measurement, line relationships and lettering, and geometric construction concepts.

**DFTG 2400 - DFTG Practicum/Internship 4**

**Prerequisite:** DFTG 1113

4 Credits

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

**DIET 1000 - Introduction to Diesel Technology, Tools, and Safe**

3 Credits

This course introduces basic knowledge and skills the student must have to succeed in the Diesel Equipment Technology 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, welding safety, and basic welding skills. Classroom and lab experiences on safety, precision measuring, and basic shop practices are highly emphasized.

**DIET 1010 - Diesel Electrical and Electronic Systems**

**Prerequisite:** DIET 1000

7 Credits

This course introduces students to electrical and electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: general electrical system diagnosis, battery diagnosis and repair, starting system diagnosis and repair, charging system diagnosis and repair, lighting system diagnosis and repair, gauges and warning devices, and an introduction and familiarization with electrical and electronic systems.

**DIET 1020 - Preventive Maintenance**

**Prerequisite:** DIET 1010

5 Credits

This course introduces preventive maintenance procedures pertaining to medium/heavy duty trucks and heavy equipment. Topics include: engine systems; cab and hood; heating, ventilation and air conditioning (HVAC); electrical and electronics; frame and chassis.



**DIET 1030 - Diesel Engines**

6 Credits

This course introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include: general engine diagnosis, cylinder head and valve train, engine block, engine lubrication system, engine cooling, air induction, exhaust, fuel supply systems, electronic fuel management, and engine brakes. Using and interpreting test and measuring equipment is highly emphasized.

**DIET 1040 - Diesel Truck and Heavy Equipment HVAC Systems****Prerequisite:** DIET 1010

3 Credits

This course introduces 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 safety, HVAC system theory and operation, A/C system component diagnosis and repair, HVAC system diagnosis and repair, HVAC operating systems and related controls, and refrigeration recovery, recycling, and handling procedures.

**DMPT 1000 - Introduction to Design**

4 Credits

Introduces students to the fundamentals of design concepts, including design, composition and layout, color theory and typography.

**DMPT 1005 - Vector Graphics**

4 Credits

This course is an introduction to the creation of vector imagery. Students will learn to draw illustrations transform objects work with layers patterns brushes and filters use effects and create graphics for the various applications. The focus will be on learning the essential tools basic operation and commands used in the creation of vector graphics used in different media fields.

**DMPT 1010 - Raster Imaging****Prerequisite:** DMPT 1000

4 Credits

In the Raster Imaging course the student becomes acquainted with the concepts and software related raster image manipulation. The student is introduced to the workspace and tools used in an image editing software and will learn basic image editing techniques.

**DMPT 1015 - Drawing**

0 Credits

Introduces beginning student to basic drawing techniques. Student will complete drawings using various techniques and media.

**DMPT 1020 - Introduction to Photography**

4 Credits

Introduces student to an overview of photography. Students will be introduced to parts of a camera photography processes and lighting setup and will complete various projects using a camera.

**DMPT 1025 - Production Photography**

4 Credits

Students will produce photographs using a variety of commercial lighting techniques and common studio setups, and compositing practices. Students will be required to produce a portfolio of their photography in a variety of formats.

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**DMPT 1040 - Introduction to Animation**

4 Credits

This course familiarizes the student with traditional animation methodology, use of key poses, breakdowns, and timing charts. These methods are then applied to each of the 12 basic principles of animation. The course also introduces the history of animated film, various techniques used to create animation, and important animated short films.

**DMPT 1055 - Intro to Media Technology**

4 Credits

Covers the basics of computer terminology, operating systems, and input and output devices, file formatting, file management, and overview of software.

**DMPT 1500 - Intro To Television Production**

4 Credits

An introduction to the fundamentals of television production. Students will be introduced to the process of television production, technical aspects of video signals, video cameras, video processing, television lighting, audio related to television production, producing, directing, editing, video recording and playback operation. Students will participate in studio production including producing and directing projects. Production theory, terminology, and production techniques are also introduced, with an emphasis on the function and operation of equipment to achieve basic broadcast production skills.

**DMPT 1505 - Intro to Digital Post Producti****Prerequisite:** DMPT 1500

4 Credits

This course is an introduction to basic video editing techniques used in digital video production with non-linear video editing software. The student will learn to perform basic editing functions and include the acquisition and management, shot sequencing, finishing and output.

**DMPT 1600 - Intro to Video Production**

4 Credits

This course is an introduction to the creative and technical aspects of video production. Students will learn the basic terminology and techniques of video production through analysis of produced video works as well as hands-on experience. Students will be introduced to basic digital video production including: pre-production and planning, camera operation and framing, lighting, sound, and post-production with basic editing.

**DMPT 2100 - Identity Design**

4 Credits

This course focuses on the design challenges associated with the development of symbol systems, logos, environmental graphics and information graphics. Students will use their knowledge of vector and raster applications for further study into the use of typographic treatment and graphic images.

**DMPT 2105 - Page Layout**

4 Credits

This course is an introduction to graphic design production using page layout software. Students will be introduced to the essential terminology tools and stages of workflow in the graphic design process.

**DMPT 2110 - Publication Design**

4 Credits

Using skills learned in the page layout course, students will design projects relating to the challenges associated with multiple page formats.

**DMPT 2115 - Advertising&Promotional Design****Prerequisite:** DMPT 2100

4 Credits

Using skills learned in the page layout course, students will design projects for advertising and promotion of products and services.

**DMPT 2120 - Prepress and Output**

**Prerequisite:** DMPT 2100

4 Credits

This course is an in-depth introduction to the graphic prepress production process. Through hands-on projects, the student will experience the challenges involved in successful graphic prepress production.

**DMPT 2125 - Adv Raster Imaging**

**Prerequisite:** DMPT 1010

4 Credits

The student will refine imaging skills and apply concepts in advanced techniques of raster imaging.

**DMPT 2135 - Documentary Photography**

**Prerequisite:** DMPT 1020

4 Credits

This course is designed to provide an introduction to the principles and theories of photojournalism. It concentrates on the principles of personal and social documentary photography. It is also designed to increase understanding of photography as a communication tool and to train the student to translate ideas and information into photographic form.

**DMPT 2300 - Foundations Interface Design**

4 Credits

This course lays the foundation for an in-depth study of web Interface design. Students will be exposed to the basics of design fundamentals, information architecture, interface structure, and graphic element creation. These studies will be used as a basis to develop comprehensive web layouts and navigation systems. Topics include: design elements, project planning, thumbnails and wireframes, web anatomy, sitemap and user-flows, common usability problems, UI libraries and mock-ups.

**DMPT 2305 - Web Interface Design**

**Prerequisite:** DMPT 2300

4 Credits

This course introduces best practices for interaction design and user experience. This course begins with an in-depth study of visual page design and navigation structure and progresses into high-fidelity interface prototyping and usertesting. Students will learn to upload working prototypes and replace pages on a server.

**DMPT 2310 - Animation for Web**

4 Credits

This course begins with Keyframe animation and Tween animation and then progresses into code driven functionality. Students will be introduced to ActionScript or a similar language and use it to incorporate interactive navigation elements, sound and video files.

**DMPT 2315 - Dynamic Web Design****Prerequisite:** DMPT 2300

4 Credits

This course begins with Cascading Style Sheets (CSS) and moves into Dynamic Database Driven Web Page Development. Students will be introduced to database connectivity and data exchange using forms along with advanced client-side scripting. Students will also explore advanced scripting for 2D vector animation.

**DMPT 2330 - Intro to Content Mgmt. Systems****Prerequisite:** COMP 1000

4 Credits

In the Introduction to CMS course, the student learns the basics of installing and configuring a Content Management System to easily build blogs and small web sites. Students will perform common tasks using any of the most popular (and free) Content Management Systems.

**DMPT 2335 - Web Interface Structure**

4 Credits

This course focuses on creating standard-based web interfaces while using the most current version of HTML for content structure and CSS for interface styling. Students will also explore emerging design trends and techniques used for designing modern web based interfaces.

**DMPT 2400 - Basic 3D Modeling and Animation**

4 Credits

An introduction to 3D Animation software and component visualization. Students will be introduced to software and basic techniques to begin creating models and material for animation projects. Students will also be introduced to basic lighting and animation concepts so that they will be able to develop a complete animation using 3D software at the end of this course.

**DMPT 2405 - Intermediate 3D Modeling****Prerequisite:** DMPT 2400

4 Credits

This course covers the fundamentals of computer geometry by creating the basic elements that make computer models: surfaces, NURBS, polygon, mesh and subdivisions. Students will also be introduced to production techniques that includes preparing reference images for modeling aid, rendering and output of models.

**DMPT 2410 - Digital, Texture and Lighting****Prerequisite:** DMPT 2400

4 Credits

Introduces the students to concepts for creating textures and lighting for 3D computer graphics. Students will explore in-depth the various ways to create and apply texture and lighting to the 3D models.

**DMPT 2415 - Character Rigging**

**Prerequisite:** DMPT 2405

4 Credits

This course introduces fundamental rigging techniques used to prepare a modeled character for animation. The course will focus on the essential tools and techniques, used for body and facial character rigging, skinning, skin weighting, and blend shapes.

**DMPT 2420 - 3D Production & Animation**

**Prerequisite:** DMPT 2415

4 Credits

This course will focus on tying together all the various stages of production, including concept development, materials creation, rigging and animation, and post-production.

**DMPT 2440 - Overview of Video Game Art and Design**

**Prerequisite:** DMPT 2400

4 Credits

This course will introduce students to the historical development of video games. Students will learn about the various game genres, game design, platforms, game analysis, and identifying careers in the game industry.

**DMPT 2445 - 2D Animation**

**Prerequisite:** DMPT 2400

4 Credits

This course introduces two-dimensional animation principles and best practices. The student will develop and produce an animated short film using 2-dimensional animation software.

**DMPT 2450 - Anim Short Film Prod I**

**Prerequisite:** DMPT 2400

5 Credits

This course is the first part of a series of classes which provide the student an opportunity to produce a more comprehensive animated film.

**DMPT 2455 - Anim Short Film Prod II**

**Prerequisite:** DMPT 2400

5 Credits

This course is the second part of a series of classes which provide the student an opportunity to produce a more comprehensive animated film.

**DMPT 2460 - 2D Character Animation****Prerequisite:** DMPT 2445

4 Credits

This course is a further exploration into the capabilities of two dimensional animation with an emphasis on character driven animation. The students will design and create various animated character studies in 2D and produce a short film.

**DMPT 2505 - Intermediate Digital Post Prod**

4 Credits

The student will be introduced to non-linear systems advanced features. The focus will be on audio, titling, effects, aesthetics, keyboard shortcuts and other advanced operations. The student will also work under rigid timelines and specific guidelines to acquaint the student to tight deadline practices of the television industry.

**DMPT 2510 - Field Video Production****Prerequisite:** DMPT 1505

4 Credits

This course applies the concepts and practices of field video production. The class will be introduced to portable video equipment, and field production practices and techniques including Electronic News Gathering (ENG) and Electronic Field Production (EFP). The student will produce several projects executing all aspects of production including conceiving, writing, producing, shooting and editing resulting in final broadcast-ready products

**DMPT 2520 - Lighting for Television**

4 Credits

This course focuses on lighting techniques for television production and on the tools of lighting for television and film. The student will learn about lighting and grip equipment and techniques for their use in the audio and field. The course will consist of extensive demonstration, lab and project work.

**DMPT 2525 - Writing for Broadcast**

4 Credits

Students will be introduced to writing formats for news, promotion, press releases, commercial television and radio productions and dramatic screenplays. Emphasis will be placed on correct writing styles and conceptualization for each application. Students will adapt an existing work to create an original script for the screen.

**DMPT 2530 - Advanced Video Projects****Prerequisite:** DMPT 2510

4 Credits

This is an advanced production course. The individual student will complete a long form production, which will include conceiving, writing, and pre/pro/post producing the project. Evaluation criteria include organization, visual story telling, lighting, audio, editing and graphics.

**DMPT 2600 - Basic Video Editing**

4 Credits

An introduction to basic audio and video editing techniques used in digital video production with non-linear software. Students will be introduced to the primary feature set and interface of video editing software and will learn to perform basic editing functions that include setup, adjusting and customizing preferences and settings, capturing video and audio, various editing and trimming techniques and tools, audio editing and audio creation, finishing and output.

**DMPT 2605 - Intro Vi Compos & Bdway Animat****Prerequisite:** DMPT 1010

4 Credits

This course introduces how to create and animate motion graphics. Students will learn to create dynamic animated titles and logos, animate raster and vector image file graphics, composite and edit multi-layered special effects using footage, work with shapes and masks, work with 3D elements, apply and animate various effect filters, and analyze and compress digital video for different output specifications. Students will be exposed to compositing concepts, techniques, and terminology used in finalizing a video or animation project.

**DMPT 2610 - Inter Vi Comp & Bdcast Animat****Prerequisite:** DMPT 2605

3 Credits

This course will expose students to advanced techniques used in finalizing a video or animation project using compositing software. The class will reinforce compositing concepts, workflow techniques and terminology that students have learned in previous classes. More advanced tools and techniques will be introduced to focus on overall project workflow.

**DMPT 2615 - Intermediate Video Editing****Prerequisite:** DMPT 2600

4 Credits

This course will focus on more advanced editing and finishing techniques. Students will explore different editing styles and techniques for different genres and learn how to use these techniques to create complex compositions with polished transitions fix screen direction errors edit multi-camera projects edit and mix audio work with nested sequences create effects use filters creatively color correct video and manage clips and media.

**DMPT 2620 - Intermediate Graphics for TV****Prerequisite:** DMPT 1010

3 Credits

The student will apply knowledge from the Introduction to Raster Imaging to creating static graphics for broadcast. Emphasis will be placed upon aesthetics and techniques, working with filters, compositing, layering, creating alpha channels, creating mattes, creating titles and effects as well as importing images to the application. The student will also learn how to export multi-layer graphics into applicable animation and editing applications.



**DMPT 2625 - DVD Authoring****Prerequisite:** DMPT 1010

4 Credits

This course will provide design techniques and strategies for authoring DVDs. Students will create interactive navigational interfaces for their own projects. Students will "author" a DVD by crating buttons, interactive links, and slideshows.

**DMPT 2630 - Post-Production Audio****Prerequisite:** DMPT 2600

4 Credits

The course will introduce students to the intermediate and advanced techniques for post-production audio for film and video using specialized software such as Adobe Audition or Pro-Tools. Students will learn the concept of sound design and use techniques such as re-recording dialogue and creating Foley to enrich the sound of finished projects. Students will also learn mixing techniques to ensure that all elements are audible final projects.

**DMPT 2640 - Color Grading****Prerequisite:** DMPT 2600

4 Credits

The course will introduce students to color balancing and grading techniques.

**DMPT 2650 - Visual Effects****Prerequisite:** DMPT 2605

4 Credits

The course will teach students techniques in compositing video with visual effects which includes incorporating 3D elements and pre-keyed footage, applying digital lighting and shading techniques, and applying 3rd party plugins with the goal of creating realistic-looking visual effects.

**DMPT 2660 - Special Projects**

0 Credits

In this course students will work closely with the instructor to develop complex, portfolio quality work that reflects his or her skill set in one or more of the Design and Media areas of specialization. Depending on complexity, the instructor may ask students to create a single or multiple projects.

**DMPT 2700 - Portraiture Photography**

**Prerequisite:** DMPT 1020

4 Credits

Provides instruction in the techniques of portrait photography. The students will be able to perform creative use of lighting including available and studio lighting. Introduces techniques in posing portrait subjects critical positioning of lighting and techniques used in the field. Students develop skills for critical evaluation of a portrait photograph. Topics include: tools for indoor and outdoor photography posing individuals and groups manipulating natural light and flash critique and portfolio building.

**DMPT 2705 - Photography II**

**Prerequisite:** DMPT 1020

4 Credits

Students continue the study of Photography through technical skills and theory. Topics include exposure control advanced lighting techniques and portfolio building. This class emphasizes creative skills practical exercises and photography projects.

**DMPT 2800 - Intermediate Video Production**

**Prerequisite:** DMPT 1600

4 Credits

This course will expose students to advanced techniques in digital cinematography and production audio. Students will gain hands on experience in camera operation, shot composition, camera movement, lighting, and production sound.

**DMPT 2805 - Narrative Filmmaking**

**Prerequisite:** DMPT 2800

4 Credits

This course will take students through the entire process of creating a narrative short film, with particular emphasis on skills that are specific to fictional, scripted material.

**DMPT 2810 - Documentary Filmmaking**

**Prerequisite:** DMPT 2800

4 Credits

This course will take students through the entire process of creating a documentary short film, with particular emphasis on skills that are specific to unscripted or partially scripted, non-fiction material.

**DMPT 2900 - Practicum/Internship I**

3 Credits

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

**DMPT 2905 - Practicum/Internship****Prerequisite:** DMPT 2930

4 Credits

Provides an approved industry-like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control.

**DMPT 2930 - Exit Review****Prerequisite:** DMPT 1010

4 Credits

Emphasis is placed on student's production of portfolio-quality pieces. Focuses on the preparation for entry into the job market.

**ECCE 1101 - Introduction to ECCE**

3 Credits

Introduces concepts relating the responsibilities and procedures involved in a variety of early childhood care situations. Topics include historical perspectives; professionalism; guidance; developmentally appropriate practices; learning environment (including all children); cultural diversity; and licensing accreditation and credentialing.

**ECCE 1103 - Child Growth and Development**

3 Credits

Introduces the student to the physical social emotional and cognitive development of the young child (prenatal through 12 years of age). The course 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 examining relationships between child development and positive guidance. Topics include developmental characteristics prenatal through age 12 developmental guidance applications observing and recording techniques ages and stages of development and introduction to children with special needs.

**ECCE 1105 - Health, Safety and Nutrition**

3 Credits

Introduces the theory practices and requirements for establishing and maintaining a safe healthy learning environment. Topics include CPR and first aid health issues safety issues child abuse and neglect and nutritional needs of children.

**ECCE 1112 - Curriculum and Assessment****Prerequisite:** ECCE 1103

3 Credits

Provides student with an understanding of developmentally effective approaches to teaching learning observing documenting and assessment strategies that promote positive development for young children. The course will enable the student to establish a learning environment appropriate for young children and to identify the goals benefits and uses of assessment in the development of curriculum for young children. Topics include observing documenting and assessing; learning environments; development of curriculum plans and materials; curriculum approaches; and instructional media.

### **ECCE 1113 - Creative Activities for Child**

3 Credits

Introduces the concepts related to creativity in artmusic movement and creative drama and facilitating children\*s creative expression across the curriculum. Topics include concepts of creativity and expression; theories of young children\*s creative development; facilitation of children\*s creative expression media methods and materials across the curriculum; appreciation of children\*s art processes and products; appreciation of children\*s creativity in music movement and dance; appreciation of children\*s creative expression in play and creative drama; and art and music appreciation.

### **ECCE 1121 - EarlyChildhoodCare&Ed Practicu**

**Prerequisite:** ECCE 1105

3 Credits

Provides the student with the opportunity to gain a supervised experience in a practicum placement site allowing demonstration of techniques obtained from course work. Practicum 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.

### **ECCE 1125 - Professionalism-CDA Cert Prep**

2 Credits

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.

### **ECCE 2115 - Language and Literacy**

**Prerequisite:** ECCE 1103

3 Credits

Develops knowledge skills and abilities in supporting young children\*s literacy acquisition and development birth through age twelve. Topics include developmental continuum of reading and writing literacy acquisition birth to five years of age literacy acquisition in kindergarten literacy acquisition in early grades and literacy acquisition in children who are culturally and linguistically diverse.

### **ECCE 2116 - Math and Science**

**Prerequisite:** ECCE 1103

3 Credits

Presents the process of introducing math and science concepts to young children. Includes planning and implementation of developmentally appropriate activities and development of math and science materials media and methods. Topics include inquiry approach to learning; cognitive stages and developmental processes in developing math and science concepts with children birth to five; cognitive stages and developmental processes in developing math and science concepts with children in kindergarten and primary grades; planning math and science activities; and development of math and science materials media and methods.

**ECCE 2201 - Exceptionalities****Prerequisite:** ECCE 1103

3 Credits

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 and motor impairments gifted/talented 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 multiple disabilities and community resources.

**ECCE 2202 - Social Issues&Family Involveme**

3 Credits

Enables the student to value the complex characteristics of children\*s families and communities and to develop culturally responsive practices which will support family partnerships. Students use their understanding to build reciprocal relationships which promote children\*s development and learning. Students are introduced to local programs and agencies that offer services to children and families within the community. Topics include professional responsibilities family/social issues community resources family education and support teacher-family communication community partnerships social diversity and anti-bias concerns successful transitions and school-family activities.

**ECCE 2203 - Guidance and Classroom Mgmt****Prerequisite:** ECCE 1103

3 Credits

Examines effective guidance practices in group settings based upon the application of theoretical models of child development and of developmentally appropriate practices. Focus will be given to individual, family, and cultural diversity. Topics will include developmentally appropriate child guidance (birth through 12); effective classroom management, including preventive and interventive techniques; understanding challenging behaviors; and implementing guidance plans.

**ECCE 2245 - Internship I****Prerequisite:** ECCE 1101

6 Credits

Provides the student with the opportunity to gain a supervised experience in an actual or simulated work site allowing demonstration of techniques obtained from course work. Internship topics include promoting child development and learning; building family and community relations; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum; and becoming a professional

**ECCE 2246 - Internship II****Prerequisite:** ECCE 1101

6 Credits

Provides the student with the opportunity to gain a supervised experience in an actual or simulated work site allowing demonstration of techniques obtained from course work. Internship topics include promoting child development and learning; building family and community relations; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum; and becoming a professional.

**ECCE 2310 - Paraprofess Methods&Materials****Prerequisite:** ECCE 1103

3 Credits

Develops the instructional skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary age children. Topics include assessment and curriculum instructional techniques and methods for instruction in a learning environment.

**ECCE 2312 - Paraprofessional Role&Practice****Prerequisite:** ECCE 1103

3 Credits

Develops skills to enable the student to work as a paraprofessional in a program for kindergarten through elementary aged children. Topics include professional qualifications professional and ethical conduct professionalism and employment and paraprofessional roles and responsibilities.

**ECCE 2320 - Program Admin&Facility Manage**

3 Credits

Provides training in planning implementation and maintenance of an effective early childhood program and facility. Topics include organization mission philosophy goals of a program; types of programs; laws rules regulations accreditation and program evaluation; needs assessment; administrative roles and board of directors; anti-bias program development; child development and developmentally appropriate practices; marketing public and community relations grouping enrollment and retention; working with families; professionalism and work ethics; space management; money management; and program equipment and supplies management.

**ECCE 2322 - Personnel Management**

3 Credits

Provides training in early childhood personnel management. Topics include staff records; communication; personnel policies; managing payroll; recruitment interviewing selection hiring motivating and firing; staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluations; ethical responsibilities to employees; and time and stress management.

**ECCE 2330 - Infant/Toddler Development**

3 Credits

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.

**ECCE 2332 - Infant/Toddler Group Care&Curr**

3 Credits

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.

**ECCE 2340 - Family Child Care Program Management**

3 Credits

Provides the guidelines, responsibilities, and appropriate practices needed for successful management of a Family Child Care Home. Provides guidelines and responsibilities for professional business practices associated with the successful establishment and administration of a Family Child Care Home. Topics include business plans, budgeting, taxes, marketing, record keeping, and professional qualifications.

**ECCE 2342 - Family Child Care Business Management**

3 Credits

Provides guidelines and responsibilities for professional business practices associated with the successful establishment and administration of a Family Child Care Home. Topics include: business plans; budgeting; taxes; marketing, record keeping and professional qualifications.

**ECCE 2350 - Early Adolescent Development**

3 Credits

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.

**ECCE 2352 - Design Prog&environ School Age**

3 Credits

Provides the student with information about preparing appropriate environments and planning and implementing activities for school age children and youth. This class includes 30 hours of lab during which the student will be observed implementing the concepts learned in class. Topics include space design varied choices and program activities to promote interest in: athletic/physical development community involvement cultural arts literacy math science and technology and positive social relationships.

**ECCE 2360 - Classroom Strategies for Excep****Prerequisite:** ECCE 2201

3 Credits

Prepares child care providers and paraprofessionals with knowledge and skills in the areas of working effectively with children 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 his/her family; examining the adaptations and modifications to facilities and environments; reviewing the referral process; implementing inclusion; modifying instruction to accommodate the child with special needs; and investigating ways to document and chart observations.

**ECCE 2362 - Exploring Your Role in Excepti****Prerequisite:** ECCE 2201

3 Credits

Prepares child care providers and paraprofessionals with knowledge and skills for screening and assessing purposes; and explores resources, service providers, and agencies that may assist the child and families in educational or natural settings. Examines adaptations, accommodations, and modifications to environments; reviews the referral process; implements inclusion and modifies instruction to accommodate the child with special needs.

**ECCE 2370 - Visual Arts Integration****Prerequisite:** ECCE 1103

3 Credits

Develops knowledge skills and abilities in supporting integration in the use of the visual arts across the EEC curriculum. Topics include developmental support for arts integration, definition of arts integration, variety of approaches to visual integration, visual arts development and acquisition in the early years, use of visual arts integration with children who are culturally and developmentally diverse, assessment of visual arts integration behavioral skills, collaborating with parents, teaching arts, and colleagues.



**ECCE 2372 - Music and Movement Integration****Prerequisite:** ECCE 1103

3 Credits

Develops knowledge, skills and abilities in supporting integration in the use of music and movement across the ECCE curriculum. Topics include developmental support for music and movement integration, definition of music and movement integration, variety of approaches to music and movement integration, music and movement development in acquisition in the early years, use of movement and movement integration with children who are culturally and developmentally diverse, assessment of music and movement integration behavioral skills, and creating plans for collaborating with parents and colleagues.

**ECCE 2374 - Drama Integration****Prerequisite:** ECCE 1103

3 Credits

Develops knowledge, skills and abilities in supporting integration in the use of drama, including role play, pantomime, story enactment, puppetry, play writing, process drama, story drama across the ECCE curriculum. Topics include: Developmental support for drama integration; definition and history of drama integration; variety of approaches to drama integration; drama development and acquisition in the early years; use of drama integration with children who are culturally and developmentally diverse; assessment of drama integration, behavioral skills; and creating plans for collaborating with parents and colleagues.

**ECET - ECET 2111L****Prerequisite:** ECET 1110**Corequisite:** ECET 2111

1 Credits

Continues the study of digital systems with emphasis on the study of microcomputers with programming applications involving external devices with which the microprocessor/microcontroller must communicate. Topics include: logic families, PLD programming, microcomputer architecture, programming with arithmetic/logic instructions, jump, loop and call operations, I/O programming, timers, interrupts and interfacing techniques. Laboratory work parallels class work to include use of PLD (programmable logic devices) platforms, and microprocessor/microcontroller platforms to reinforce and edify theoretical concepts.

**ECET 1101 - Circuit Analysis I****Prerequisite:** ENGT 1000

4 Credits

Emphasizes the knowledge and ability to analyze basic DC circuits and introductory concepts of AC circuits. Topics include: international units basic electrical laws series and parallel circuits network analysis concepts network theorems concepts D.C. instruments grounding techniques magnetism inductance/capacitance transient analysis and introduction to dependant sources and 2-port parameters. Laboratory work parallels class work.

**ECET 1102 - Circuit Analysis I Lab****Corequisites:** ECET 1102, ENGT 1000, MATH 1111

1 Credits

This course contains selected lab exercises that parallel ECET 1102. Laboratory work includes circuit construction, use of appropriate instruments, troubleshooting and circuit simulation using P-SPICE. Laboratory work emphasizes knowledge and ability to analyze basic DC circuits and introductory concepts of AC circuits. Topics include: international units, basic electrical laws, series and parallel circuits, network analysis concepts, network theorems concepts, D.C. instruments, grounding techniques, magnetism, inductance/capacitance and transient analysis.

**ECET 1102 - Circuit Analysis I Lab**

1 Credits

This course contains selected lab exercises that parallel ECET 1102. Laboratory work includes circuit construction, use of appropriate instruments, troubleshooting and circuit simulation using P-SPICE. Laboratory work emphasizes knowledge and ability to analyze basic DC circuits and introductory concepts of AC circuits. Topics include: international units, basic electrical laws, series and parallel circuits, network analysis concepts, network theorems concepts, D.C. instruments, grounding techniques, magnetism, inductance/capacitance and transient analysis.

**ECET 1110 - Digital Systems I****Prerequisite:** ENGT 1000

4 Credits

Study of digital electronics. Topics include: fundamentals of digital techniques simplification of logic circuits flip-flops and registers sequential logic circuits combinational logic circuits arithmetic and logic operations and conversions. Laboratory work parallels class work using trainers DesignWorks and Altera simulation software and systems.

**ECET 1111 - Digital Systems I Lab****Prerequisite:** ENGT 1000**Corequisite:** ECET 1111

1 Credits

Study of digital circuit fundamentals with an emphasis on digital electronics and techniques, simplification of logic circuits, sequential and combinational logic circuits, programmable logic devices, flip-flops and registers, binary number system, and arithmetic and logic operations. Laboratory work parallels class work using trainers, DesignWorks, and Altera simulation software and system.

**ECET 1111 - Digital Systems I Lab**

1 Credits

Study of digital circuit fundamentals with an emphasis on digital electronics and techniques, simplification of logic circuits, sequential and combinational logic circuits, programmable logic devices, flip-flops and registers, binary number system, and arithmetic and logic operations. Laboratory work parallels class work using trainers, DesignWorks, and Altera simulation software and system.

**ECET 1191 - Computer Programming Fund****Prerequisite:** MATH 0098

3 Credits

This course emphasizes fundamental concepts of problem solving using a high level source language. Laboratory work is designed to acquaint students with computer facilities, software, and programming fundamentals. Topics include: system fundamentals, concepts of structured programming, arrays, functions, and engineering applications.

**ECET 1210 - Networking Systems I****Prerequisite:** ENGT 1000

4 Credits

Provides a foundation in Local Area Networking of computers with an introduction to Wide Area Networking. Emphasis is on Peer-to-Peer Networking.

**ECET 1220 - Computer System Maintenance**

3 Credits

This course provides an introduction to computer hardware, architecture and operating systems. Areas of study include computer assembly, operating system installation and configuration, and performance monitoring and troubleshooting.

**ECET 2101 - Circuit Analysis II****Prerequisite:** ECET 1101

4 Credits

Continues study of AC circuit analysis which emphasizes complex networks. Topics include: analysis of complex networks networks with multiple sources AC network theorems resonance transformers three-phase systems filters and bode plots non-sinusoidal waveforms and pulse response of RLC circuits. Laboratory work parallels class work.

**ECET 2102 - Circuit Analysis II Lab****Prerequisites:** ECET 1101, MATH 1111**Corequisite:** ECET 2102

1 Credits

Continues study of AC circuit analysis, which emphasizes complex networks. Topics include: analysis of complex networks, networks with multiple sources, AC network theorems, resonance, transformers, three-phase systems, filters and bode plots, non-sinusoidal waveforms, and pulse response of RLC circuits. Laboratory work parallels class work.

**ECET 2102 - Circuit Analysis II Lab**

1 Credits

Continues study of AC circuit analysis, which emphasizes complex networks. Topics include: analysis of complex networks, networks with multiple sources, AC network theorems, resonance, transformers, three-phase systems, filters and bode plots, non-sinusoidal waveforms, and pulse response of RLC circuits. Laboratory work parallels class work.

### **ECET 2110 - Digital Systems II**

**Prerequisite:** ECET 1110

4 Credits

Continues the study of digital systems with emphasis on the study of microcomputers with programming applications involving external devices with which the microprocessor/microcontroller must communicate. Topics include: logic families, PLD programming, microcomputer architecture, programming with arithmetic/logic instructions, jump, loop and call operations, I/O programming, timers, interrupts and interfacing techniques. Laboratory work parallels class work to include use of PLD (programmable logic devices) platforms, and microprocessor/microcontroller platforms to reinforce and edify theoretical concepts.

### **ECET 2111 - Digital Systems II**

**Prerequisite:** ECET 1110

3 Credits

Continues the study of digital systems with emphasis on the study of microcomputers with programming applications involving external devices with which the microprocessor/microcontroller must communicate. Topics include: logic families, PLD programming, microcomputer architecture, programming with arithmetic/logic instructions, jump, loop and call operations, I/O programming, timers, interrupts and interfacing techniques. Laboratory work parallels class work to include use of PLD (programmable logic devices) platforms, and microprocessor/microcontroller platforms to reinforce and edify theoretical concepts.

### **ECET 2120 - Electronic Circuits I**

4 Credits

Introduces the conduction process in semiconductor materials and devices. Topics include: semiconductor physics; diodes; basic diode circuits and applications; biasing stability and graphical analysis of bipolar junction transistors and field effect transistors; introduction to silicon controlled rectifiers; device curve characteristics; and related devices with selected applications. Laboratory work includes circuit construction use of appropriate instruments troubleshooting and circuit simulation using P-SPICE.

### **ECET 2210 - Networking Systems II**

**Prerequisite:** ECET 1210

4 Credits

This course emphasizes the design implementation configuration and monitoring of a client-server network environment. Emphasis is placed on applications to Local Area Networks. An introduction to Network Domains in Wide Area Networks is included.

**ECET 2220 - Electronic Circuits II****Prerequisite:** ECET 2120

4 Credits

Emphasizes the analysis of BJT and FET amplifiers; analysis and applications of operational amplifiers and other linear digital ICs. Topics include: re transistor model; CB CE and CC amplifiers; Darlington connection; cascaded systems; CS CD CG Amplifiers; High frequency and low frequency response of BJT and FET amplifiers; Power Amplifiers Class A Class B Class C Amplifiers; op-amp fundamentals; inverting non-inverting amplifiers voltage followers and summing amplifiers; comparators; instrumentation applications; active filters; differentiators and integrators; 555 Timers; A/D and D/A Conversion. Laboratory work parallels class work and includes circuit simulation using P-spice. Laboratory work parallels class work.

**ECET 2230 - Network System Design****Prerequisite:** ECET 2210

4 Credits

This course is an advanced networking course that emphasizes installation and configuration of multiple operating systems on a local area network. Wide Area Network routing, switching and subnetting applications are also covered

**ECON 1101 - Principles of Economics**

3 Credits

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

**ECON 2105 - Principles of Macroeconomics**

3 Credits

Provides a description and analysis of macroeconomic principles and policies. Topics include basic economic principles macroeconomic concepts equilibrium in the goods and money markets macroeconomic equilibrium and the impact of fiscal and monetary policies.

**ECON 2106 - Principles of Microeconomics**

3 Credits

Provides an analysis of the ways in which consumers and business firms interact in a market economy. Topics include basic economic principles consumer choice behavior of profit maximizing firms modeling of perfect competition monopoly oligopoly and monopolistic competition.

**ELCR 1005 - Soldering Technology**

1 Credits

Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include: safety practices, soldering, desoldering, anti-static grounding, and surface mount techniques.

### **ELCR 1010 - Direct Current Circuits**

6 Credits

This course provides instruction in the theory and practical application of simple and complex direct current circuitry. Topics include laboratory safety practices and procedures electrical laws and principles DC test equipment basic series parallel and combination circuits complex series and parallel circuits and DC theorems.

### **ELCR 1020 - Alternating Current Circuits**

**Prerequisite:** ELCR 1010

7 Credits

This course introduces the theory and application of varying sine wave voltages and current and continues the development of AC concepts with emphasis on constructing verifying and troubleshooting reactive circuits using RLC theory and practical application. Topics include AC wave generation frequency and phase relationship impedance admittance and conductance power factors reactive components simple RLC circuits AC circuit resonance passive filters and non-sinusoidal wave forms.

### **ELCR 1030 - Solid State Devices**

**Prerequisite:** ELCR 1020

5 Credits

This course provides instruction in the theory and application of solid state devices in the electronics industry. Emphasis is placed on the physical characteristics and uses of solid state devices. Topics include PN diodes power supplies voltage regulation bipolar junction theory and application field effect transistors and special applications.

### **ELCR 1040 - Digital & Microprocessor Fund**

**Prerequisite:** ELCR 1020

5 Credits

This course is designed to provide sufficient coverage of digital electronics and microprocessor fundamentals. Digital fundamentals will introduce basic topics such as binary topics such as binary arithmetic logic gates and truth tables Boolean algebra and minimization techniques logic families and digital test equipment. Upon completion of the foundational digital requirements a more advanced study of digital devices and circuits will include such topics as flip-flops counters multiplexers and de-multiplexers encoding and decoding displays and analog to digital and digital to analog conversions. Students will also explore the basic architecture and hardware concepts of the microprocessor.

### **ELCR 1060 - Linear Integrated Circuits**

**Prerequisite:** ELCR 1020

3 Credits

Provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include: operational amplifiers timers and three-terminal voltage regulators.

**ELCR 1240 - Industrial Electronics Survey**

3 Credits

Introduces the fundamental concepts and technologies utilized in industrial electronics applications. Topics include: process controls sensors motor controls programmed controls mechanical devices fluid power and robotics.

**ELCR 1300 - Mobile Audio and Video Systems**

3 Credits

Provides the fundamental concepts for the installation of automotive audio and video systems. Topics include: charging and electrical systems automotive wiring harnesses basic audio systems advanced audio systems and mobile video systems.

**ELCR 1800 - Electrical Lineworker Organization Principles**

3 Credits

**ELCR 1820 - Electrical Lineworker Workplace Skills**

2 Credits

**ELCR 1840 - Electrical Lineworker Automation Skills**

2 Credits

**ELCR 1860 - Electrical Lineworker Occupational Skills (**

5 Credits

**ELCR 2140 - Mechanical Devices**

2 Credits

Develops knowledge and skills necessary to transmit mechanical power using common industrial linkage types. Emphasis is placed on use of mechanical devices in combination with electronic controls. Topics include: linkages motion analysis gear drives and preventative maintenance.

**ELCR 2150 - Fluid Power**

2 Credits

Provides an overview of fluid power operation as applied to industrial electronics. Emphasis is placed on the interfacing of electronic and fluidic systems. Topics include: safety fluid dynamics hydraulics pneumatics air logic and electrical interfacing.

**ELCR 2170 - Computer Hardware**

5 Credits

**ELCR 2190 - Networking I**

3 Credits

Provides an introduction to networking technologies. Cover a wide range of material about networking from careers in networking to local area networks wide area networks protocols topologies transmission media and security. Focuses on operating network management systems and implementing the installation of networks. The course reviews cabling connection schemes the fundamentals of LAN and Wan technologies TCP/IP configuration and troubleshooting remote connectivity and network maintenance and troubleshooting. Topics include: media and topologies protocols and standards network implementation and network support.

**ELCR 2210 - Advanced Circuit Analysis****Prerequisite:** ELCR 1020

5 Credits

This course provides an in depth study of communication system concepts and emphasis an analysis of amplitude and frequency modulation and detection methods. Topics include AM FM and SSB modulation and detection transmitters and receivers multiplexing and de-multiplexing basic telemetry concepts and noise bandwidth considerations.

**ELCR 2220 - Advanced Modulation Techniques****Prerequisite:** ELCR 1020

3 Credits

This course continues the study of modulation and detection techniques. Topics include: digital modulation techniques, pulse modulation techniques, and sampling techniques.

**ELCR 2230 - Antenna and Transmission Lines****Prerequisite:** ELCR 1020

3 Credits

Provides an understanding of antennas and transmission lines used in communications. Topics include: transmission lines wave guides antenna types antenna applications and telephone transmission lines.

**ELCR 2240 - Microwave Communications&Radar****Prerequisite:** ELCR 1020

3 Credits

Provides a basic understanding of microwave communications and radar. Topics include: microwave and radar fundamentals microwave devices wave guides specialized antennas radar systems and communications systems.



**ELCR 2250 - Optical Comm Techniques****Prerequisite:** ELCR 1020

3 Credits

Surveys the major optical devices used for communications. Topics include: light sources fiber optic cable coupling and fusing light modulation and detection techniques and system application of light devices.

**ELCR 2290 - Security Systems****Prerequisite:** ELCR 1010

3 Credits

Provides an in-depth study of electronic devices designed to detect environmental changes that indicate a threat to property security. Topics include: sensor theory low-voltage license regulations system components and system installation and service.

**ELCR 2350 - Security/Fire Alarm Systems**

5 Credits

Introduces electronic security and fire alarm concepts and principles. Topics include: burglar alarm system operation installation and maintenance; fire alarm system operation installation and maintenance; closed circuit television principles and application; and access control theory principles and application.

**ELCR 2560 - CET License Preparation**

3 Credits

Prepares the student for taking a certifying examination developed by Iowa State University and administered by the Electronic Technician's Association. Topics include: mathematics; electrical properties; series and parallel circuits; oscillators detectors comparators and demodulators; test equipment and measurement; electronic components and nomenclature; semiconductors; digital concepts; computer basics; communications electronics; safety precautions and checks; television and video; antennas and signal distribution; consumer electronics; and block diagrams and troubleshooting.

**ELCR 2590 - Fiber Optic Systems**

3 Credits

Introduces the fundamentals of fiber optics and explores the applications of fiber optic transmission systems. Laboratory exercises give students hands-on experience with fiber optic devices and test equipment. Topics includes: fundamentals of fiber optics types of optical fibers fiber materials and manufacture cabling light sources/transmitters/receivers connectors splicing test measurement and fiber optic system design.

**ELCR 2600 - Telecommunication&Data Cabling**

**Prerequisite:** ELCR 1010

3 Credits

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.

**ELCR 2620 - Telcom-InstalProgram&DataTrans**

**Prerequisite:** ELCR 1020

4 Credits

This course provides instruction in the installation programming testing and repair of simple and complex telephone systems. An introduction is also given to basic concepts on telecommunication and data transmission.

**ELCR 2650 - Home Automation Systems**

**Prerequisite:** ELCR 2620

5 Credits

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.

**ELTR 1010 - Direct Current Fundamentals**

3 Credits

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.

**ELTR 1020 - Alternating Current Fundamentals**

3 Credits

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.

**ELTR 1060 - Electrical Prints, Schematics, and Symbols**

2 Credits

Introduces electrical symbols and their use in construction blueprints, electrical schematics, and diagrams. Topics include: electrical symbols, component identification, print reading and scales and measurement.

**ELTR 1205 - Residential Wiring I**

3 Credits

Introduces residential wiring practices and procedures. Topics include: print reading, National Electrical Code, wiring materials and methods, and control of luminaries and receptacle installation.

**ELTR 1210 - Residential Wiring II**

3 Credits

Provides additional instruction on wiring practices in accordance with the National Electrical Code. Topics include: single and multi-family load calculations, single and multi-family service installations, sub-panels and feeders, and specialty circuits.

**EMPL 1000 - Interpersonal Relat & Prof Dev**

2 Credits

Emphasizes 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.

**EMSP 1010 - Emergency Medical Responder**

4 Credits

The Emergency Medical Responder (EMR) course prepares the student to provide initial stabilizing care to the sick or injured prior to the arrival of Emergency Medical Services Professionals (EMS), and to assist EMS personnel in transporting patients for definitive care at an appropriate hospital/facility. Major areas of instruction include Introductory Medical Terminology and Anatomy & Physiology; Responder Safety; Incident Command; Bloodborne Pathogen Training; Basic Physical Assessment; and Treatment of Trauma and Medical Emergencies; Cardiopulmonary Resuscitation and the use of Automatic External Defibrillators. The course is a blend of lecture, hands on lab/learning, and practical scenario based learning/testing. The course will include Healthcare Provider CPR/AED Certification from a Nationally Recognized Body (American Heart Association, Red Cross, etc). If this course is also approved by the Georgia State Office of Emergency Medical Services and Trauma (SOEMST), successful completion will allow the student to be eligible to take the National Registry of Emergency Medical Technicians (NREMT) Emergency Medical Responder (EMR) certification. Topics include: Preparatory; Anatomy and Physiology; Medical Terminology; Pathophysiology; Life Span Development; Public Health; Pharmacology; Airway; Management; Respiration and Artificial Ventilation; Assessment; Medicine; Shock and Resuscitation; Trauma; Special Patient Populations; EMS Operations; and Integration of Patient Assessment and Management.

**EMSP 1110 - Intro to the EMT Profession**

3 Credits

This course serves as the introductory course to the Emergency Medical Services (EMS) profession. It orients the student to the prehospital care environment, issues related to the provision of patient care in both in-hospital and out-of-hospital circumstances. It further provides foundational information upon which subsequent curriculum content is based so that successful completion of this content increases the potential for success in subsequent courses and should allow students to apply the fundamental knowledge, skills, and attitudes gained in order to effectively communicate and function safely, ethically and professionally within the emergency medical services environment. Topics include: Anatomy and Physiology, Medical Terminology, Pathophysiology, CPR for HCP, EMS Systems, Research, Workforce Safety and Wellness, Documentation, EMS System Communication, Therapeutic Communication, Medical/Legal and Ethics, Public Health, Principles of Safely Operating a Ground Ambulance, Incident Management, Multiple Casualty Incidents, Air Medical, Vehicle Extrication, HazMat, MCI due to Terrorism/Disaster, and Life Span Development.

**EMSP 1120 - EMT Assess/Airway/Pharmacology**

3 Credits

This course prepares students for initial scene management and assessment of patients as well as management of the airway. Introduction to pharmacology is also covered. Includes application of scene information and patient assessment findings (scene size up, primary and secondary assessment, patient history, and reassessment) to guide emergency management. Topics include: Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; Reassessment; Airway Management; Respiration; Artificial Ventilation; Principles of Pharmacology; Medication Administration; and Emergency Medications.

**EMSP 1130 - Medical Emergencies for EMT**

3 Credits

This course integrates pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan of cases involving non-traumatic medical emergencies. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non-Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Medical Assessments.

**EMSP 1140 - Special Patient Population**

3 Credits

This course provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs. Topics include: Obstetrics, Gynecology, Neonatal Care, Pediatrics, Geriatrics, Patients with Special Challenges, and Special Patient Populations - Assessments.

**EMSP 1150 - Shock & Trauma for the EMT**

3 Credits

This course is designed to prepare the EMT student to apply pre-hospital emergency care to patients who have sustained injuries resulting from various mechanisms of injury including: Abdominal and Genitourinary trauma; Orthopedic trauma; Soft Tissue trauma; Head, Facial, Neck, and Spine Trauma and Nervous System trauma. Special considerations in trauma related injuries will be presented including the physiology of shock as well as multi-system trauma and environmental emergencies. Topics include: Shock and Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; and Multi-System Trauma.

**EMSP 1160 - Clinical & Practical Appl EMT**

1 Credits

This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of an EMT. Topics include: Clinicals and Assessment Based Management.

**EMSP 1510 - Adv. Concepts for the AEMT**

3 Credits

This course serves as the introductory course to the advanced level practice of the Advanced Emergency Medical Technician (AEMT). It expands on the information attained at the EMT level. Topics include: EMS Systems; Documentation; EMS System Communication; Therapeutic Communication; Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; Artificial Ventilation; Primary Assessment; and Secondary Assessment.

**EMSP 1520 - Adv Patient Care for the AEMT**

3 Credits

This course provides opportunities to apply fundamental knowledge of basic and selected advanced emergency care and transportation based on assessment findings for the following: an acutely ill patient; a patient in shock, respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management; and an acutely injured patient. In addition it provides a fundamental knowledge of growth, development, and aging and assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs. Topics include: Geriatrics; Patients with Special Challenges; Medical Overview; Neurology; Immunology; Infectious Disease; Endocrine Disorders; Cardiovascular; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Shock and Resuscitation; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopedic Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; and Integration of Medical/Trauma Assessments.

**EMSP 1530 - Clinical Applications for AEMT**

1 Credits

This course provides supervised clinical experience in various clinical settings. Topics include: Clinicals.

**EMSP 1540 - Clinical & Prac Appl for AEMT**

3 Credits

This course provides supervised clinical experience in various clinical settings as well as opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of an AEMT. Topics include: Clinicals and Assessment Based Management

**EMSP 2110 - Foundations of Paramedicine**

3 Credits

This course introduces the student to the role of the paramedic in today's healthcare system, with a focus on the prehospital setting. This course will also prepare the student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan. Topics include: EMS Systems; Research; Workforce Safety and Wellness; Documentation; EMS System Communication; Therapeutic Communication; Medical/Legal and Ethics; Life Span Development; Public Health; Incident Management; Air Medical; Scene Size-Up; Primary Assessment; History Taking; Secondary Assessment; Monitoring Devices; and Reassessment.

**EMSP 2120 - Appl Pathophysiology Paramedic**

3 Credits

This course expands the concepts of pathophysiology as it correlates to disease processes. This course will enable the student to apply the general concepts of pathophysiology to the assessment and management of patients in the emergency setting. Topics include: Pathophysiology.

**EMSP 2130 - Adv Resuscitative Skills**

3 Credits

This course will equip the paramedicine student with an expanded knowledge of pharmacology, as well as skills used to manage the respiratory system. Students will learn to use these advanced resuscitative skills to mitigate patient care emergencies, and to improve the overall health of the patient. Topics include: Principles of Pharmacology; Medication Administration; Emergency Medications; Airway Management; Respiration; and Artificial Ventilation.

**EMSP 2140 - Adv Cardiovascular Concepts**

4 Credits

This course equips the paramedicine student with an expanded knowledge of the anatomy, physiology, and electrophysiology of the cardiovascular system. Students will also examine the epidemiology of cardiovascular disease, and will begin to integrate advanced assessment skills (including ECG interpretation) into the assessment of cardiac patients. Topics include: Anatomy, Physiology, and Electrophysiology of the Cardiovascular System; Epidemiology of Cardiovascular Disease; Assessment of the Cardiac Patient; Electrocardiographic (ECG) interpretation.

**EMSP 2310 - Therapeutic Modalities-Cardio**

3 Credits

This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a cardiovascular emergency. Topics include: Cardiovascular Emergencies and Advanced Cardiovascular Life Support (ACLS).

**EMSP 2320 - Therapeutic Modalities-Medical**

5 Credits

This course will enable the student to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient experiencing a medical emergency. Topics include: Medical Overview; Neurology; Abdominal and Gastrointestinal Disorders; Immunology; Infectious Disease; Endocrine Disorders; Psychiatric; Toxicology; Respiratory; Hematology; Genitourinary/Renal; Non-Traumatic Musculoskeletal Disorders; Diseases of the Eyes, Ears, Nose, and Throat; and Assessment of Medical Emergencies.

**EMSP 2330 - Therapeutic Modalities-Trauma**

4 Credits

This course will enable the student to integrate a comprehensive knowledge of causes and pathophysiology into the management of traumatic: cardiac arrest and peri-arrest states; shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest. This course will also include integrating assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient. During this course, the student will complete a nationally recognized pre-hospital trauma course (i.e. PHTLS, ITLS, ATT, etc.). Topics include: Shock and Trauma Resuscitation; Trauma Overview; Bleeding; Chest Trauma; Abdominal and Genitourinary Trauma; Orthopedic Trauma; Soft Tissue Trauma; Head, Facial, Neck, and Spine Trauma; Nervous System Trauma; Special Considerations in Trauma; Environmental Emergencies; Multi-System Trauma; and Assessment of Trauma Emergencies.

**EMSP 2340 - Therapeutic Modalities-Sp Pat**

4 Credits

This course will enable the student to integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for various special patient populations. During this course, the student will also complete a nationally recognized pediatric course (i.e. EPC, PALS, PEPP, etc.). Topics include: Obstetrics; Gynecology; Neonatal Care; Pediatrics; Geriatrics; and Patients with Special Challenges.

**EMSP 2510 - Clinical Applications-Paramedic**

2 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2510 Clinical Applications for the Paramedic - I is one in a series of courses that also includes: EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2520 - Clinical Appl-Paramedic-II**

2 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2520 Clinical Applications for the Paramedic - II is one in a series of courses that also includes: EMSP 2510, EMSP 2530, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST).

**EMSP 2530 - Clinical Appl-Paramedic III**

2 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2530 Clinical Applications for the Paramedic - III is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2540, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2540 - Clinical Appl Paramedic IV**

1 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2540 Clinical Applications for the Paramedic - IV is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2550, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2550 - Clinical Appl Paramedic V**

1 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2550 Clinical Applications for the Paramedic - V is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2560 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2560 - Clinical Appls-Paramedic VI**

1 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2560 Clinical Applications for the Paramedic - VI is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2570. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2570 - Clinical Appl Paramedic VII**

1 Credits

This course provides the paramedicine student with supervised clinical experience in various clinical settings. EMSP 2570 Clinical Applications for the Paramedic - VII is one in a series of courses that also includes: EMSP 2510, EMSP 2520, EMSP 2530, EMSP 2540, EMSP 2550 and EMSP 2560. The successful completion of all of these will result in meeting all clinical standards required by the State Office of Emergency Medical Services and Trauma (SOEMST). Topics include: Clinicals.

**EMSP 2710 - Field Internship-Paramedic**

2 Credits

Provides supervised field internship experience in the prehospital advanced life support setting. Topics include: Field Internship.



**EMSP 2720 - Practical Applici-Paramedic**

3 Credits

Allows opportunities to demonstrate critical thinking skills and assessment based management techniques through competency based evaluations relevant to the practice of a Paramedic. Topics include: Assessment Based Management for Paramedics.

**ENGL 0097 - Pre-Diploma English**

3 Credits

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 basic mechanics spelling and writing skills.

**ENGL 0099 - Pre-Degree English****Corequisite:** ENGL 1101

3 Credits

This course provides writing and grammar instructional support for student success in English 1101. Students take this course concurrently with English 1101. Topics include academic essay writing, critical thinking, and language success. Students receive extensive support in writing analytical college essays including a review of basic grammar, mechanics, and punctuation; the rhetorical analysis of published essays; and the use of various strategies for building logical arguments.

**ENGL 0988 - Intermediate Reading & Writing**

3 Credits

This course integrates academic reading and writing skills to prepare students to be career and college ready. Topics include reading and writing processes, study strategies, critical thinking strategies, and research skills. Upon successful completion of this course, students will be able to apply these skills toward understanding and composing unified, coherent, and well-developed texts at a career and college-ready level. The course fulfills the requirements for the highest level of learning support reading and/or English and prepares students for ENGL 1101.

**ENGL 0998 - Integrated Reading and Writing**

3 Credits

Uses a modular approach to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing process; critical thinking strategies; and recognition and composition of well-developed, coherent, and unified texts. Students progress at their own pace to master each module.

**ENGL 1010 - Fundamentals of English I**

3 Credits

Emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing, applied grammar and writing skills, editing and proofreading skills, research skills, and oral communication skills.

**ENGL 1012 - Fundamentals of English II**

**Prerequisite:** ENGL 1010

3 Credits

Provides knowledge and application of written and oral communications found in the workplace. Topics include writing fundamentals and speaking fundamentals.

**ENGL 1101 - Composition and Rhetoric**

**Prerequisite:** ENGL 1010

3 Credits

Explores the analysis of literature and articles about issues in the humanities and in 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 and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.

**ENGL 1102 - Literature and Composition**

**Prerequisite:** ENGL 1101

3 Credits

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; and writing about literature.

**ENGL 1105 - Technical Communications**

**Prerequisite:** ENGL 1101

3 Credits

Workplace and Technical Communication. Emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include reference use and research, device and process description, formal technical report writing, business correspondence, and technical report presentation.

**ENGL 2130 - American Literature**

**Prerequisite:** ENGL 1101

3 Credits

Emphasizes American literature as a reflection of culture and ideas. A survey of important works in American literature. Includes a variety of literary genres: short stories, poetry, drama, nonfiction, and novels. Topics include literature and culture, essential themes and ideas, literature and history, and research skills.

**ENGL 2310 - English Literature from the Beginnings to 1700****Prerequisite:** ENGL 1101

3 Credits

This course presents a survey of important works in early English literature. Course content includes a variety of literary genres: poetry, drama, fiction and nonfiction. Writers typically include the Beowulf poet, Gawain poet, Chaucer, Spenser, Sidney, Marlowe, Donne, Jonson, Shakespeare, and Milton. The course emphasizes English literature as a reflection of culture and ideas. Competency areas include literature and culture; essential themes and ideas; literature and history; research and writing skills; and oral communication skills.

**ENGT 1000 - Intro to Engineering Tech**

3 Credits

Provides a study of engineering technology as a career field and describes the knowledge and skills required for academic and occupational success. Topics include: engineering technology career measurement and standards mathematical operators engineering tools and engineering concepts. Labs reinforce mathematical mechanical and electrical concepts through practical exercises such as measurement and calculation of density of objects relative humidity use of digital multi-meter building circuits use of precision instruments and team exercises.

**ENGT 2300 - Capstone Project****Prerequisite:** ECET 2101

1 Credits

This course will require students to undertake either individual or team projects, by applying knowledge acquired classroom/lab activities in program courses and core courses. The student will create or construct a product, a circuit or mechanism using circuit building, troubleshooting and other engineering skills developed through previous course work. The project activity includes conceptualization, detailed planning and design, project construction, cost and production considerations, quality assurance and project presentation.

**FILM 1100 - GFA Intro to On-Set Film Prod**

6 Credits

This course provides students with a basic set of skills and insights sufficient to be integrated onto the sets of working film productions. The course is offered in collaboration with the Georgia Film Academy

**FILM 1150 - GFA Intro to Spec Makeup Effects****Prerequisite:** FILM 1100

6 Credits

This course is designed to educate students with entry-level skills and knowledge in practical special effects (SFX) makeup for the film and television industry. Students will participate in goal-oriented class projects including fabrication material safety use of casting materials professional makeup sculpting airbrushing and design. Emphasis will be placed on set etiquette including but not limited to attitude professionalism and technique on and off set. Students are encouraged to attend open labs to refine their skills when available to further practice what they learn in class.

**FILM 1510 - GFA Set Construct and Painting****Prerequisite:** FILM 1100

6 Credits

Designed to equip students with entry-level skills and knowledge of set construction for the film and episodic television industries. Students will participate in class projects that include reading blueprints, set safety, use of power tools, carpentry, scenic paint and sculpting. Additionally, emphasis will be placed on set etiquette including, but not limited to attitude and professionalism. The course is offered in collaboration with the Georgia Film Academy.

**FILM 1650 - GFA Post Production: Film & TV****Prerequisite:** FILM 1100

6 Credits

This course is designed to certify students with Avid Media Composer User Certification. This certification is recognized world-wide as the industry standard for assistant editors in feature films and broadcast television. The course will equip students with a unique skill set and knowledge of industry standard digital imaging editorial process and story forging on both motion picture and episodic nonlinear productions. At the end of the course the students will be qualified to advance a career in entertainment post production of film and television. Successful completion of the coursework will award students Avid Media Composer Certified User 100 certification and qualify them to work as an assistant editor in feature films and episodic television. Students will learn Avid Media Composer post production processes and best practices industry standard department terminology image processing basic visual effects and color grading as well as Digital Imaging Technician (DIT) workflows. A large emphasis will be placed on the technical aspects of the industry standard editing tools as well as attitude professionalism and technique in and out of the edit room. Students will certify as an Avid Media Composer User upon passing Avid's certification exam. Students are expected to attend open labs such as guest speakers to complete course assignments.

**FILM 2100 - GFA Practicum**

12 Credits

Through cooperative agreements among the film industry, the Georgia Film Academy, and the student, the practicum provides students opportunities to demonstrate techniques learned in the initial Georgia Film Academy's course through on-set productions. Emphasizes student opportunities to practice production assistant skills in a hands-on situation under the supervision of a film industry professional. Topics include: demonstrating film production functions, applying film knowledge and skills in the workplace, listening and following directions, modeling professionals, and safety.

**FILM 2550 - GFA Film Practicum/Internship**

6 Credits

Provides additional skills application in a professional production environment through cooperative agreements among the film industry, the Georgia Film Academy and the student to furnish employment within a variety of production opportunities. Emphasizes student opportunities to practice production assistant skills in a hands-on situation under the supervision of a film industry professional. Supplements and compliments the courses taught in the Georgia Film Academy. Topics include: application of production skills, appropriate employability skills, problem solving, adaptability to differing production environments and acceptable job performance for Production Assistants assigned to the grip, electrical, art department, hair and makeup, SPFX, locations, camera, transportation and production departments.

**FORS 1010 - Introduction to Forestry and Natural Resources**

3 Credits

Introduces the fundamentals of forestry and natural resources. Topics include: history of forestry, importance of forestry, forest safety, harvesting equipment, and natural resource careers.

**FORS 1030 - Dendrology**

3 Credits

Provides the basis for a fundamental understanding of the taxonomy and identification of trees and shrubs. Topics include: tree and shrub classification, tree and shrub identification, tree and shrub structure identification, and leaf structure identification.

**FORS 1210 - GPS/GIS Aerial Photography****Prerequisite:** MATH 1012

4 Credits

Focuses on application of the fundamental principles and practices of land surveying and mapping and the use of surveying and mapping instruments. Emphasizes areas of plane and boundary surveying and area determination. Topics include: Global positioning systems (GPS), geographical information systems (GIS), area determination, developing maps, and aerial photography.

**FORS 1260 - Forest Measurements**

4 Credits

Emphasizes identification of primary and secondary forest products and their manufacturing processes and uses and fixed plot method of statistical sampling. Introduces the fundamental principles and practices of timber cruising. Topics include: history of forest products manufacturing, raw forest resource identification, importance of forest measurements, forest measurement tools and equipment, forest measurement methods, and cruising and scaling methods.

**FOSC 1206 - Introduct to Forensic Science**

3 Credits

This introductory course will provide a broad overview of the areas in forensic science covered in higher level courses. Topics include the recognition identification individualization and evaluation of various types of physical evidence forensic science and the law and ethics in forensic science. The relationship of forensic science to the natural sciences and the use of the scientific method in forensic science will also be explored.

**FOSC 2010 - Crime Scene Investigation I****Prerequisite:** FOSC 1206

6 Credits

A study of the methods and techniques of scientific crime scene investigation and analysis using principles from biology chemistry and physics to document recognize preserve and collect physical evidence. Topics covered include video recording photography sketching and searching of crime scenes along with proper collection and preservation methods.

### **FOSC 2011 - Crime Scene Investigation II**

**Prerequisite:** FOSC 2010

4 Credits

Designed to follow Crime Scene Investigation I this course focuses on the specialized scene techniques needed to investigate analyze process and reconstruct crime scenes. Topics will include presumptive testing enhancement reagents special scene techniques bloodstain pattern analysis shooting reconstruction pattern recognition and crime scene reconstruction.

### **FOSC 2014 - Document & Report Preparation**

**Prerequisite:** ENGL 1010

4 Credits

The effectiveness of quality notes, reports and accurate documentation in the investigative process are explained and performed. Preparation of a report, chain of custody documents and other forms with proper content, mechanics, elements and format will also be explained and performed. Topics include field or bench notes, documentation of observations, factual report writing, property and evidence reports, business letters, memorandums, proper grammar, proper sentence structure and characteristics essential to quality report writing and document preparation.

### **FOSC 2039 - Computer Forensics**

**Prerequisite:** CIST 1130

5 Credits

The main goal of this course is to provide students with an understanding of computer forensics and investigation tools and techniques. Students will gain a solid foundation in computer forensics and investigations. Most of the major personal computer operating system architectures and disk structures will be discussed. Students will learn how to set up an investigators office and laboratory, as well as what computer forensic hardware and software tools are available. Students will also learn the importance of digital evidence controls and how to process crime and incident scenes. Finally, students will learn the details of data acquisition, computer forensic analysis, e-mail investigations, image file recovery, investigative report writing, and expert witness requirements. The course provides a range of laboratory and hands-on assignments that teaches about theory as well as the practical application of computer forensic investigation.

### **FOSC 2150 - Case Prep&CourtroomTestimony**

**Prerequisite:** FOSC 1206

4 Credits

Examines the case file preparation admissibility of evidence rulings the criminal trial process courtroom demeanor and direct and cross examination techniques for courtroom testimony. Skills are performed in a mock courtroom setting by the students. Topics include fact and expert witnesses pertinent case law property and evidence reports investigative and laboratory reports preparation of the witness witness credibility and proper courtroom appearance and demeanor.

**FRSC 1020 - Basic Firefighter-EMS Fundament**

3 Credits

This course provides the student with information on the applicable laws policies and standards that the Firefighter I course is designed and how the course will be administered. This course will provide the student basic knowledge of where and how the fire service originated from the colonial periods to present day firefighting operations. The student will learn basic roles and responsibilities of a firefighter how firefighters have to abide by and work from standard operating procedures and guidelines and how the chain of command works and their position within it. The student will be provided the knowledge on how to communicate within the fire service; whether it with the fire station or on the fire ground. This course provides the emergency responder with basic principles and functions of the Incident Command System. The course will provide the necessary knowledge and skills to operate within the ICS and their role within the ICS at the fire station at a non-emergency scene and at emergency scenes. It will provide also provide the emergency responder with knowledge on how to perform basic skills at emergency scenes that deal with infection control cardiopulmonary resuscitation basic first aid measures and using an AED. Finally it will provide the emergency responder skills and knowledge on how to recognize the presence of and the potential for a hazardous materials release and how and who personnel should call. Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following: 1. Infection Control 2. CPR 3. First Aid 4. ICS-1005. IS-7006. NPQ - Hazardous Materials for First Responders Awareness Level This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state local and provincial occupational health and safety regulatory requirements.

**FRSC 1030 - Basic Firefighter - MODULE I**

5 Credits

This course provides the firefighter candidate/recruit with basic knowledge and skills to perform various fire ground operations as a firefighter on emergency scenes. The candidate/recruit will learn about safety during all phases of a firefighters career the personal protective equipment that is required for training and every emergency response and how to properly don it for use and doff it after use. The candidate/recruit will learn about the dynamics of fire through fire behavior and how to extinguish the different phases of fires with either portable fire extinguishers or through fire suppression attacks and techniques. The candidate/recruit will also learn the three tactical priorities of Life Safety Incident Stabilization and Property Conservation that have to be achieved on every fireground. Basic knowledge and skills will be provided to the candidate/recruit so they can achieve the tactical priorities through various fireground operations such as: response + size-up forcible entry ladders search + rescue ventilation water supply fire hose fire nozzles fire streams salvage and overhaul. Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following: 1. Module I This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state local and provincial occupational health and safety regulatory requirements.

**FRSC 1040 - Basic Firefighter - MODULE II**

3 Credits

This course builds from the skills and knowledge in Module I and provides the knowledge and skills to support the fireground techniques learned in the previous courses. The firefighter will learn various uses of ropes + knots and how to hoist fire fighting tools and equipment. The firefighter will also gain the knowledge and skills of building construction principles that will be used throughout their firefighting career to identify building conditions such as: fire spread and travel how and where to ventilate indications of potential building collapse etc. The firefighter will learn survival techniques that will be used throughout their career to help keep themselves safe and how to rescue themselves or another firefighter. Firefighter rehabilitation will be discussed during this course so that the firefighter will know how and when to properly rehab themselves before during after an emergency response. Knowledge of fire suppression systems will be discussed so that the firefighter will have a basic understanding of the components of a fire detection protection and suppression system. Basic cause determination will be discussed so that firefighters will be aware of observations during various phases of fireground operations. Finally to complete the Firefighter I program the firefighter will participate in the following live fire scenarios in order to complete the objectives of the program. 1. Exterior Class A Fire 2. Interior Structure Attack Above Grade Level 3. Interior Structure Attack Below Grade Level 4. Vehicle Fire 5. Dumpster Fire Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to obtain a certificate of completion or become certified through the appropriate governing agency for the following: 1. NPQ Fire Fighter I This course meets the requirements NFPA 1001 Standard for Fire Fighter Professional Qualifications and all other state local and provincial occupational health and safety regulatory requirements.

**FRSC 1050 - Fire and Life Safety Educator I****Prerequisite:** FRSC 1020

3 Credits

Most structural fires fire deaths and fire injuries occur in the home. This course addresses some of the most important responsibilities of the modern fire service; teaching the public to prevent or if needed escape fires and related emergencies. We have adopted the approach that we must learn from each incident then put the information to work to prevent fires and fire losses through public fire and life safety education. Topics include: general requisite knowledge administration planning and development education and implementation and evaluation.

**FRSC 1060 - Fire Prev, Prepare, & Main**

3 Credits

This course provides the student with the necessary skills of fire prevention, emergency scene preparedness, and tool and equipment maintenance. Specifically addressed are the following topics: basic principles of building construction; knowledge of water supply systems to include pressurized systems, rural water supplies, and alternative water supplies; perform hydrant flow tests as part of water flow assessments for water supplies coming from pressurized hydrants; discuss fire detection, suppression, and suppression systems; consolidate all knowledge to perform a pre-incident plan of a facility; selection of proper tools and techniques of cleaning and proper maintenance of those tools; discuss hoselines, nozzles, and fire streams to perform hoseline lays with proper nozzles attached and select the proper fire stream for the class of fire encountered on various types of fire scenes; and service testing of fire hoses. Finally, this course will conclude fire cause determination to gain necessary knowledge and skills to perform a fire investigation to determine the point of origin and the cause of a fire in a structure. To participate in this course the student must also attain national certification of Firefighter I status or state firefighter certification status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141.



**FRSC 1070 - Intro to Technical Rescue**

4 Credits

This course provides an awareness of the principles of technical rescue through utilization of readings from the text, classroom discussion, practical skills, and practice. This course includes Extricating a victim entrapped in a Motor Vehicle, Assisting a Rescue Team in various technical rescue operations including but not limited to Trench and Excavation, Rope Rescue, Water Rescue, Confined Space Operations, Structural Collapse, Vehicle and Machinery Rescue, and Wilderness Search and Rescue. The student will learn the application of knots, rigging principles, anchor selection criteria, system safety check procedures, rope construction and rope rescue equipment applications and limitations. This course fulfills NFPA 1001, Standard for Firefighter Professional Qualifications, current Edition Chapter 6 for firefighter II rescue operations and NFPA 1006, Standard for Technical Rescuer Professional Qualifications, 2008 Edition Chapter 5 sections 5.2, 5.3, 5.4, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5, 5.5.8, 5.5.9, 5.5.11, 5.5.14 and NFPA 1670, Standard on operations and Training for Technical Search and Rescue Incidents, current Edition sections 5.2.2, 6.2.2, 6.3.47.2.48.2.3, 9.2.3, 10.2.2, 11.2. To participate in this course, the student must also have attained state firefighter certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040 and FRSC 1141.

**FRSC 1080 - Fireground Operations**

3 Credits

This course will provide the student basic knowledge of the roles and responsibilities of the Firefighter II; the standard operating procedures and guidelines of firefighters; fire service communications relative to obtaining information from occupants and owners to complete an incident report can be completed accurately; Incident Command principles and their application; practical fireground hydraulics to supply proper nozzle pressures while participating in live fire scenarios. To participate in this course the student must also attain state firefighter certification of Firefighter I status or successful completion of FRSC 1020, FRSC 1030, FRSC 1040, FRSC 1141.

**FRSC 1100 - Introduct to the Fire Service**

3 Credits

This course is a survey of the philosophy and history of Fire Protection, loss of property and life by fire, review of municipal fire defenses and the organization and function of the federal, state, county, city and private fire protection. 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; and emergency operations

**FRSC 1110 - Fire Admin/Supervis&Leadership**

3 Credits

This course provides the necessary knowledge and skills for an emergency responder to become a successful fire officer. The student will learn how to become a responsible leader and supervisor to a crew of firefighters how to manage a budget for the fire station understand standard operating procedures and be able to manage an incident. Also an understanding of basic fire prevention methods fire and building codes and records systems will be covered throughout the course. Upon completion of this course the student emergency responder candidate/recruit will have the basic skills and knowledge to be able to qualify for a certificate of completion or seek certification through the appropriate governing agency for the following: 1. NFA Leadership I 2. NFA Leadership II 3. NFA Leadership III This course meets the requirements NFPA 1021 Standard for Fire Officer Professional Qualifications and all other state local and provincial occupational health and safety regulatory requirements.

**FRSC 1115 - Fire Behavior and Combustion**

3 Credits

This course provides an understanding of the basic principles of fire chemistry, the processes of fire/combustion, and fire behavior. It addresses theoretical concepts, explaining their importance, and illustrates how they can be applied in a practical manner when responding to emergency situations. An emphasis is placed on safety, with each explanation drawing a connection between how a fire behaves and how it affects the safety of the individual firefighters and their team.

**FRSC 1121 - Firefighting Strategy&Tactics**

3 Credits

This course presents the principles of applying fire department resources to mitigate a fire or related emergency. General topics include: principles of firefighting 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 waterfront fires.

**FRSC 1132 - Fire Service Instructor**

4 Credits

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 the legal environment and NPQ Fire Instructor I. Students will have numerous hands-on opportunities to apply what they learn. Successful completers of FRSC 1132 are qualified to test for the National Professional Qualification (NPQ) Fire Instructor I Exam.

**FRSC 1141 - Hazardous Materials Operations**

4 Credits

This course provides emergency responder personnel with the information to respond safely limit possible exposure to all personnel and to provide information to the proper authorities as being a primary goal while reacting in the defensive mode of operation. The first responder operations level responsibilities are recognition and identification of a hazardous material scene the gathering of information the notification of the proper authorities the isolation of the area by setting perimeters/zones possible evacuation protection by initiating the incident management system emergency decontamination and performing defensive actions only. Even though the first responder is a member of an emergency response service they are not trained in specialized protective clothing or specialized control equipment. Thus the first responder is not a member of a hazardous materials response team. This course meets the requirements of NFPA 472 - Professional Competence of First Responders to Haz Mat Incidents at the Operations Level. This course also meets the requirements of OSHA 29 CFR 1910.120 EPA USDOT and all other appropriate state local and provincial occupational health and safety regulatory requirements. Also required as prerequisite: NPQ FF I and NPQ Hazardous Materials Awareness Level

**FRSC 1151 - Fire Prevention & Inspection**

4 Credits

Emphasis is placed on the shared responsibility of all fire service personnel to prevent fires and fire losses by survey of fire prevention activities conducting basic fire prevention inspections practicing life safety codes review of local and state laws regarding fire inspection and review of applicable codes and standards. Topics include: code administration inspection use and occupancy building limitations and types of construction fire resistive construction elements installation of fire protection systems means of egress interior finish requirements general fire safety provisions maintenance of fire protection systems means of egress maintenance for occupancies hazardous materials flammable liquids and aerosols detonation and deflagration hazards hazardous assembly occupancies other storage and processing occupancies compressed gases and cryogenic liquids pesticides and other health hazards and using referenced standards. Successful completion of FRSC 1151 qualifies individuals to test for the National Professional Qualification (NPQ) Inspector Level-I examination

**FRSC 1161 - Fire Service Safe&Loss Control**

4 Credits

This course will provide the necessary knowledge and skills for the emergency responder to understand occupational safety and health and be able to develop safety programs. The course starts with an introduction to occupational safety and health and covers the history national agencies that produce injury and fatality reports and efforts that have been made to address safety and health problems in emergency service occupations. The course will review safety related regulations and standards and discuss how to implement them through risk management processes. There will be lectures and discussions on pre-incident safety safety at fire emergencies safety at medical and rescue emergencies safety at specialized incidents and post-incident safety management. Personnel roles and responsibilities will be covered so that knowledge can be gained on the relationship to the overall safety and health program by the different responding and administrative personnel at emergency scenes. Lectures and discussions on how to develop manage and evaluate safety programs will be covered to provide general knowledge and basic skills on occupational health and safety programs. Finally information management and various other special topics will be covered to gain knowledge on the legal ethical and financial considerations that programs need to be aware of and how to collect the data and report it.

**FRSC 2100 - Fire Admin Management**

3 Credits

This course will provide the necessary knowledge and skills for the emergency responder to become a diverse leader and manager in their department. The course starts with the history of the fire service which focuses on the historical events that have forged the fire service today. Discussions on preparing for the future are designed to provide information to develop a game plan for personal success. Leadership and Management principles will be taught to blend the academics of leadership and management research into what occurs in the fire service organization on a daily basis. Leadership styles will be discussed to help understand how to lead and manage and as important why its done. The course will take an insightful look into how people handle change personally and organizationally. Discussions on ethics will be focused on the elements critical to ethical leadership and management practices. The course will explore the elements of team building and provide a depth of understanding how to blend various styles and personalities to get the most from people. Discussions on managing emergency services will target budgeting and personnel management the support elements that are so vital to every organization. Quality of the fire service will also be looked at for methods of quality improvement and their applications to improve the services delivered to citizens everyday. An in-depth overview of the changes in disaster planning and response since 9-11 and includes ways to help with community evaluation and preparedness processes. Finally shaping the future will explore the possibilities of what may occur in the fire service and how you can play an important role in helping to shape the fire service of the future.

### **FRSC 2110 - Hydraulics**

3 Credits

This course begins with the history and theories of the use of water for fire extinguishment 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 standpipe systems automatic sprinkler systems firefighting foams and the clip board friction loss system.

### **FRSC 2120 - Fire Protection Systems**

3 Credits

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. Specific topics include: introduction to fire protection systems water supply systems for fire protection systems water-based suppression systems nonwater-based suppression systems fire alarm systems smoke management systems and portable fire extinguishers.

### **FRSC 2130 - Fire Serv Building Construct**

4 Credits

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 building construction building construction classification building construction hazards and tactical considerations structural loads and stresses structural building components and functions fire resistance and flame spread building codes structural failure and firefighter safety and firefighter safety in structural and wildland firefighting.

### **FRSC 2141 - Incident Command**

4 Credits

The Incident Command course is designed to illustrate the responsibilities to use deploy implement and/or function within an Incident Command System (ICS) as well as functioning within multi-jurisdictions incident under the Incident Management System (IMS). The course emphasizes the need for incident management systems an overview of the structure and expandable nature of ICS an understanding of the command skills needed by departmental officers to use ICS guidelines effectively and scenario practice on how to apply ICS and IMS. The National Incident Management System (NIMS) will illustrate and provide the consistent nationwide template to enable all government private-sectors and non-governmental organizations to work together during virtual all domestic incidents. These course competencies will cover those objectives entailed in NIMS 100 200 700 and 800.

### **FRSC 2170 - Fire and Arson Investigation**

4 Credits

Presents an introduction to Fire Investigation. Emphasis is placed upon: fire behavior combustion properties of various materials sources of ignition and investigative techniques for - structures grassland wildland automobiles vehicles ships and other types of fire investigation causes of electrical fires chemical fires explosive evaluations laboratory operation Techniques used in fire deaths and injuries arson as a crime other techniques State and Federal laws and future trends in fire investigative technology.

**HIMT 1100 - Intro to Health Information Tech**

3 Credits

This course focuses on orienting the student to health information management. Topics include introducing students to the structure of healthcare in the United States and its providers, and the structure and function of the American Health Information Management Association (AHIMA).

**HIMT 1150 - Computer Apps in Healthcare**

3 Credits

Designed to provide students with computer and software skills used in medical offices. Topics include hardware and software components of computers for medical record applications; database software and information management; specialized information management systems in healthcare; methods of controlling confidentiality and patient rights; accuracy and security of health information data in computer systems as well as future directions of information technology in healthcare.

**HIMT 1151 - Computer Applications in Healthcare**

4 Credits

Designed to provide students with computer and software skills used in medical offices. Topics include hardware and software components of computers for medical record applications; database software and information management; specialized information management systems in healthcare; methods of controlling confidentiality and patient rights; accuracy and security of health information data in computer systems as well as future directions of information technology in healthcare.

**HIMT 1200 - Legal Aspects of Healthcare**

3 Credits

This course focuses on the study of legal principles applicable to health information, patient care and health records. Topics include: working of the American Legal System, courts and legal procedures, principles of liability, patient record requirements, access to health information, confidentiality and informed consent, the judicial process of health information, specialized patient records, risk management and quality assurance, HIV information, and the electronic health record.

**HIMT 1250 - Health Record Content & Struct**

2 Credits

This course provides a study of content, storage, retrieval, control, retention, and maintenance of health information. Topics include: health data structure, content and standards, healthcare information requirements and standards.

**HIMT 1350 - Pharmacotherapy****Prerequisite:** ALHS 1090

2 Credits

Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/or adverse reactions. Also introduces the basic concept used in the administration of drugs. Topics include: introduction to pharmacology, sources and forms of drugs, drug classification, and drug effects on the body systems

### **HIMT 1360 - Introduction to Pathopharmacotherapy**

**Prerequisites:** ALHS 1090, BUSN 2300

3 Credits

Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/or adverse reactions. Also introduces the basic concept used in the administration of drugs. Topics include: introduction to pharmacology, sources and forms of drugs, drug classification, and drug effects on the body systems.

### **HIMT 1400 - Coding and Classific ICD Basic**

4 Credits

This course provides the student an introduction to Medical Coding & Classification of diseases, injuries, encounters, and procedures using standard applications of Medical Coding Guidelines to support reimbursement of healthcare services.

### **HIMT 1410 - Coding And Classif ICD Advance**

**Prerequisite:** HIMT 1400

3 Credits

This course provides the student with case studies for in-depth review of inpatient and outpatient record formats as found in current healthcare settings. Advanced coding skills and use of industry applications to apply coding and billing standards will be the focus to develop auditing and compliance strategies in the work setting

### **HIMT 2150 - Healthcare Statistics**

**Prerequisite:** MATH 0098

3 Credits

This course analyzes the study of methods and formulas used in computing and preparing statistical reports for health care services and vital records. It also focuses on the study of methods and techniques used in presenting statistical data.

### **HIMT 2200 - Performance Improvement**

3 Credits

This course introduces the students to the peer review and the role health information plays in evaluating patient care. The course investigates the components of performance improvement programs in health care facilities, including quality assessment, utilization management, risk management, and critical clinical pathways. State and local standards are included as well as review of the federal governments role in health care and accreditation requirements of various agencies.

### **HIMT 2300 - Healthcare Management**

3 Credits

This course will engage in the functions of a manager, planning, organizing, decision making, staffing, leading or directing, communication and motivating. Further study will include principles of authority/ responsibility, delegation and effective communication, organization charts, job descriptions, policies and procedures, employee motivation, discipline and performance evaluation.

**HIMT 2375 - Healthcare Coding****Prerequisite:** ALHS 1090

3 Credits

Provides an introduction to medical coding skills and the application of international coding standards as it applies to healthcare billing for insurance purposes. Topics include: current procedural terminology, International Classification of Diseases, code book formats, coding techniques, formats of the ICD and CPT manuals, and collections.

**HIMT 2400 - Coding & Classif CPT/HCPCS**

3 Credits

This course provides an introduction to, and application of, codes using CPT/HCPCS system. Codes will be applied to workbook exercises, case studies, and actual outpatient charts. Codes will be assigned manually as well as by an encoder.

**HIMT 2410 - Revenue Cycle Management****Prerequisite:** HIMT 1400

3 Credits

This course focuses on how the revenue cycle is impacted by various departments within the facility such as patient access/registration, case management/quality review, health information management, and patient accounting. Subjects include insurance plans, medical necessity, claims processing, accounts receivable, chargemaster, DRGs, APCs, edits, auditing and review. ICD and CPT coding as they relate to the billing function will be reviewed. The importance of revenue cycle management for fiscal stability is emphasized.xx

**HIMT 2460 - Health Info Tech Practicum****Prerequisites:** HIMT 1200, HIMT 1250**Corequisites:** HIMT 2375, HIMT 2400

3 Credits

This course will allow students to perform advanced functions of a health information management (HIM) department. Students will work in realistic work environments in either a traditional, non-traditional, or lab setting. Activities will include application of all HIMT coursework. The student will also learn professional skills to prepare them for employment in the HIM career field.

**HIMT 2500 - Certification Seminar**

4 Credits

This course provides students with the opportunity to review for the certification exam. Students are also afforded the opportunity to develop a portfolio as they seek to make the transition into the workforce. Topics include: searching the job market; preparing the portfolio; stress management and burnout; test-taking strategies; and reviewing for the certification exam.

**HIMT 2600 - Introduction to Data Management****Prerequisite:** HIMT 1151

5 Credits

Designed to provide students with an introduction to healthcare data analytics. The digital environment demands interpretation and evolving uses of an organizations data that impacts patient care, revenue cycle, performance improvement activities, and strategic decisions. This course will provide the foundation for data collection, storage, analysis, and reporting through the use of open source statistical software, R, data modeling and mining techniques. This course will afford an understanding of data analytics through applications of different data types, data collection and storage, and the transformation of data into meaningful data that facilitates quality patient care.

**HIST 1111 - World History I**

3 Credits

Emphasizes the study 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 Rome, Ancient Africa, Islam, the Americas, Japan, Ancient Greece, the Middle Ages, and the Renaissance.

**HIST 1112 - World History II**

3 Credits

Emphasizes the study 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 Rome, Ancient Africa, Islam, the Americas, Japan, Ancient Greece, the Middle Ages, and the Renaissance.

**HIST 2111 - U.S. History I**

3 Credits

Emphasizes the study of U. S. History to 1877 to include the post-Civil War period. The course focuses on the period from the Age of Discovery through the Civil War to include geographical intellectual political economic and cultural development of the American people. It includes the history of Georgia and its constitutional development. 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.

**HIST 2112 - U.S. History II**

3 Credits

Emphasizes the study 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. The course also provides an overview of the history of Georgia and the development of its constitution. 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 1950\*s; the 1960\*s and 1970\*s; and America since 1980.



**HRTM 1100 - Intro Hotel Rest & Tour Mgmt**

3 Credits

Provides the student with an overview of occupations in the hospitality industry. Emphasizes the various segments of each occupation and the interrelated responsibilities for customer service which exist across the hospitality industry. Topics include: development of the hospitality industry, food and beverage services, hotel services, meeting and convention services, management's role in the hospitality industry, and hospitality industry trends.

Provides the student with an overview of occupations in the hospitality industry. Emphasizes the various segments of each occupation and the interrelated responsibilities for customer service which exist across the hospitality industry. Topics include: development of the hospitality industry, food and beverage services, hotel services, meeting and convention services, management's role in the hospitality industry, and hospitality industry trends.

**HRTM 1140 - Hotel Operations Management**

Credits

**HRTM 1150 - Event Planning**

Credits

**HRTM 1160 - Food and Beverage Management****Prerequisite:** MATH 1012

3 Credits

Provides students with a study of food and beverage operations and management. Emphasis is placed on the successful operation of a food and beverage establishment. Topics include restaurants, owners, locations, and concepts; business plans, financing, and legal and tax matters; menus, kitchens, and purchasing; restaurant operations and management.

**HRTM 1160 - Food and Beverage Management**

3 Credits

Provides students with a study of food and beverage operations and management. Emphasis is placed on the successful operation of a food and beverage establishment. Topics include restaurants, owners, locations, and concepts; business plans, financing, and legal and tax matters; menus, kitchens, and purchasing; restaurant operations and management.

**HRTM 1201 - Hospitality Marketing**

3 Credits

Introduces students to marketing techniques associated with hotel/restaurant/tourism fields with emphasis on identifying and satisfying needs of customers. Topics include: marketing introduction, research and analysis, marketing strategies, marketing plans, social media marketing, branding, positioning, sales and advertising. Because of the constant change in marketing strategies in the hospitality industry, this course will also focus on new marketing techniques that are being used in the hospitality industry.

**HRTM 1210 - Hospitality Law**

Credits

**HRTM 1220 - Leadership in Hospitality**

3 Credits

This courses focuses on the principles of good supervision and leadership as they apply to day-to-day hospitality operations. Topics include recruiting, selection, orientation, compensation and benefits, motivation, teamwork, coaching, employee training and development, performance standards, discipline, employee assistance programs, health and safety, conflict management, communicating and delegating, and decision making and control.

**HUMN 1101 - Introduction to Humanities****Prerequisite:** ENGL 1101

3 Credits

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.

**ICET 2010 - Electromechanical Devices****Prerequisite:** ECET 2101

4 Credits

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.

**ICET 2020 - Instrument Process Measurement****Prerequisite:** ICET 2010

4 Credits

This course introduces control system components and theory as they relate to controlling industrial processes. Course covers identification, interpretation and design of loop and piping & instrumentation (P&ID) drawings. Mechanical, fluidic, temperature, and miscellaneous sensors are studied with emphasis on measuring techniques. Topics include: open and closed loop control theory, feedback, transducers, signal conditioning, P&IDs and control hardware and actuators. Laboratory work heavily emphasizes practical exercises and applications.

**ICET 2030 - Programmable Logic Controllers****Prerequisite:** ICET 2010

4 Credits

Emphasize an in-depth study of the programmable controller with programming applications involving control of industrial processes. Course explores SCADA system hardware. Topics include: input and output modules logic units memory units power supplies ladder diagrams relay logic timers and counters control strategy programming networks user interface (HMI) communication equipment and software and troubleshooting. Lab work parallels class work with emphasis on program execution effectiveness efficiency and integration.

**ICET 2050 - Process Control****Prerequisite:** ICET 2020

4 Credits

Provides a study of process control system design. Students explore system design and tuning integration of sensors transmitters indicators controllers and final control elements. Industrial electronics control loop theory PID (Proportional Integral Derivative) control theory loop tuning and control loop troubleshooting are emphasized.

**IDFC 1000 - Principles of Electricity I**

4 Credits

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.

**IDFC 1005 - Principles of Electricity II (**

5 Credits

This course introduces the theory and application of varying sine wave voltages and current and solid state devices. Topics include magnetism, AC wave generation, AC test equipment, inductance, capacitance, basic transformers, an introduction to semiconductor fundamentals, diode applications, basic transistor fundamentals, basic amplifiers, and semiconductor switching devices.

**IDFC 1007 - Industrial Safety Procedures**

2 Credits

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.

**IDFC 1011 - Direct Current I**

3 Credits

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.

**IDFC 1012 - Alternating Current I**

3 Credits

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

**IDFC 1013 - Solid State Devices I**

3 Credits

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.

**IDSY 1005 - Introduction to Mechatronics**

4 Credits

This course provides an introduction to the field of mechatronics and automation technology. Topics include automation technology as a part of engineering sciences, fundamentals of electrical engineering, sensors, fundamentals of pneumatics, electrical drives, applications of relays in electropneumatics, and programmable logic controllers.

**IDSY 1011 - Industrial Comput Applications**

3 Credits

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.

**IDSY 1020 - Print Reading&Problem Solving**

3 Credits

Introduces practical problem solving techniques as practiced in an industrial setting. Topics include: analytical problem solving troubleshooting techniques reading blueprints and technical diagrams schematics and symbols specifications and tolerances. The course emphasizes how the machine or mechanical system works reading engineering specifications and applying a systematic approach to solving the problem.

**IDSY 1101 - DC Circuit Analysis**

3 Credits

This course 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.

**IDSY 1105 - AC Circuit Analysis**

3 Credits

This course introduces alternating current concepts, theory, and application of varying sine wave voltages and current, and the physical characteristics and applications of solid state devices. Topics include, but are not limited to, electrical laws and principles, magnetism, inductance and capacitance.

**IDSY 1110 - Industrial Motor Controls I**

4 Credits

This course introduces the fundamental concepts, principles, and devices involved in industrial motor controls, theories and applications of single and three-phase motors, wiring motor control circuits, and magnetic starters and braking. Topics include, but are not limited to, motor theory and operating principles, control devices, symbols and schematic diagrams, NEMA standards, Article 430 NEC and preventative maintenance and troubleshooting.

**IDSY 1111 - Industrial Wiring**

3 Credits

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, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors.

**IDSY 1112 - Industrial Motor Controls I**

5 Credits

This course introduces the fundamental concepts, principles, and devices involved in industrial motor controls, theories and applications of single and three-phase motors, wiring motor control circuits, and magnetic starters and braking. Topics include, but are not limited to, motor theory and operating principles, control devices, symbols and schematic diagrams, NEMA standards, Article 430 NEC and preventative maintenance and troubleshooting.

**IDSY 1120 - Basic Industrial PLCs**

4 Credits

This course introduces the operational theory, systems terminology, PLC installation, and programming procedures for Programmable Logic Controllers. Emphasis is placed on PLC programming, connections, installation, and start-up procedures. Other topics include timers and counters, relay logic instructions, and hardware and software applications.

**IDSY 1130 - Industrial Wiring**

4 Credits

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, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors.

**IDSY 1150 - DC and AC Motors**

3 Credits

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.

**IDSY 1160 - Mechanical Laws and Principles**

4 Credits

Introduces the student to fundamental laws and principles of mechanics. Topics include: Mechanical Principles of Simple Machines; Force Torque Velocity Acceleration and Inertia; Rotational Motion; Work Power and Energy; Matter; Gases; Fluid Power; and Heat. The course emphasizes understanding terminology and using related problem solving skills in everyday physical applications of mechanical technology. Competencies are reinforced with practical hands on lab exercises.

**IDSY 1161 - Fundamentals of Machine Tool and Mechanical System**

4 Credits

Introduces the fundamental concepts necessary for safe operation of basic machine tools, print reading, and mechanical laws and principles. Topics include: safety, introduction to threads and fasteners, power tool operation, precision measurements, print reading and sketching, geometric dimensioning and tolerancing, mechanical laws and principles, material processing, and layout and assembly.

**IDSY 1170 - Industrial Mechanics**

4 Credits

This course introduces and emphasizes the basic skill necessary for mechanical maintenance personnel. Instruction is also provided in the basic physics concepts applicable to the mechanics of industrial production equipment and the application of mechanical principles with additional emphasis on power transmission and specific mechanical components.

**IDSY 1171 - Industrial Mechanics**

5 Credits

This course introduces and emphasizes the basic skill necessary for mechanical maintenance personnel. Instruction is also provided in the basic physics concepts applicable to the mechanics of industrial production equipment, and the application of mechanical principles with additional emphasis on power transmission and specific mechanical components.

**IDSY 1181 - Fluid Power Systems**

5 Credits

This course provides instruction in the fundamentals of safely operating hydraulic, pneumatic, and pump and piping systems. Theory and practical application concepts are discussed. Topics include hydraulic system principles and components, pneumatic system principles and components, and the installation, maintenance, and troubleshooting of pump and piping systems.

**IDSY 1190 - Fluid Power and Piping Systems**

4 Credits

This course provides instruction in the fundamentals of safely operating hydraulic pneumatic and pump and piping systems. Theory and practical application concepts are discussed. Topics include hydraulic system principles and components pneumatic system principles and components and the installation maintenance and troubleshooting of pump and piping systems.

**IDSY 1191 - Pumps and Piping Systems**

2 Credits

This course provides instruction in the fundamentals concepts of industrial pumps and piping systems. Topics include: pump identification, pump operation, installation, maintenance and troubleshooting, piping systems and installation of piping systems.

**IDSY 1191 - Pumps and Piping Systems**

2 Credits

This course provides instruction in the fundamentals concepts of industrial pumps and piping systems. Topics include: pump identification, pump operation, installation, maintenance and troubleshooting, piping systems and installation of piping systems.

**IDSY 1195 - Pumps and Piping Systems**

3 Credits

This course provides instruction in the fundamentals concepts of industrial pumps and piping systems. Topics include: pump identification, pump operation, installation, maintenance and troubleshooting, piping systems and installation of piping systems.

**IDSY 1210 - Industrial Motor Controls II**

4 Credits

This course introduces the theory and practical application for two-wire control circuits, advanced motor controls, and variable speed motor controls. Emphasis is placed on circuit sequencing, switching, and installation, maintenance, and troubleshooting techniques.

**IDSY 1220 - Intermediate Industrial PLCs**

4 Credits

This course provides for hands on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated equipment. Topics include data manipulation, math instructions, introduction to HMI, analog control, and troubleshooting discrete IO devices.

**IDSY 1230 - Industrial Instrumentation**

4 Credits

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.

**IDSY 1240 - Maintenance for Reliability**

4 Credits

Applies advanced instrumentation in conjunction with principles of mechanical physics vibration and particulate analysis thermography and advanced reliability concepts relative to precision/predictive maintenance of industrial equipment.

**IDSY 1260 - Machine Tool for Industrial Repairs**

4 Credits

Provides Industrial Mechanics the basic machine shop skills to perform common mechanical repairs such as: repair of scored pump shafts, motor shafts, conveyor shafts or valve stems; repair or fabrication of support brackets; fabrication of simple shaped (cylindrical or rectangular) parts; making or repairing keyseats and keys.

**IDSY 1260 - Machine Tool for Industrial Repairs**

4 Credits

Provides Industrial Mechanics the basic machine shop skills to perform common mechanical repairs such as: repair of scored pump shafts, motor shafts, conveyor shafts or valve stems; repair or fabrication of support brackets; fabrication of simple shaped (cylindrical or rectangular) parts; making or repairing keyseats and keys.

**LETA 1000 - Effective Comm. & Writing**

3 Credits

This course introduces the concepts of effective communication and writing principles needed to be successful as an emergency communications operator. Emphasis is placed on interpersonal communications, public speaking, and technical writing. Topics include; verbal and non-verbal language, public speaking, voice skills, content and sound of speech, report writing, and written communication skills.

**LETA 1011 - Introduction to Law Enforcement for POST Certification**

**Corequisites:** LETA 1017, LETA 1027, LETA 1029, LETA 1031

0 Credits

Introduces the criminal justice system and the role of law enforcement in the United States. As well as examines the ethical issues and areas of liability confronted by law enforcement personnel. This course also discusses juvenile proceedings and crimes against children. Topics include: the American criminal justice system; ethics and professionalism, peace officer liability, crimes against children and juvenile proceedings. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit

**LETA 1012 - Ethics and Liability for BLE**

**Prerequisite:** LETA 1032

2 Credits

This course for students of the Basic Law Enforcement Academy examines the ethical issues and areas of liability confronted by law enforcement personnel. Included in this course are the following topics: ethics and professionalism peace officer liability. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.



**LETA 1014 - Firearms Training for BLE**

4 Credits

This course provides the student of the Basic Law Enforcement Academy with an understanding of terminology legal requirements liability safety considerations tactics procedures firearms nomenclature fundamentals of marksmanship fundamental simulation in the use of deadly force and the opportunity to demonstrate proficiency in marksmanship. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1016 - Emerg Veh Operations for BLE****Prerequisite:** LETA 1012

4 Credits

This course provides the student of the Basic Law Enforcement Academy with an understanding of appropriate driving actions terminology local responsibility specific statutes and safety considerations as well as demonstrate proficiency in the operation of an emergency vehicle. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1017 - Law Enforcement Skills POST****Corequisites:** LETA 1011, LETA 1023, LETA 1027, LETA 1029, LETA 1031

2 Credits

This course provides students of the Basic Law Enforcement Academy with an understanding of terminology, human anatomy, legal requirements, liability, safety, tactics, physical fitness, and demonstrate proper procedures for fitness and specific techniques to arrest, search, control and restrain a person. This course is limited to students enrolled in the POST Technical Certificate of Credit.

**LETA 1018 - Defensive Tactics for BLE**

2 Credits

This course provides students of the Basic Law Enforcement Academy with an understanding of terminology human anatomy legal requirements liability safety tactics and demonstrate proper procedures for specific techniques to search control and restrain a person. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1020 - Police Patrol Operations-BLE**

4 Credits

This course presents the knowledge and skills associated with police patrol operations. Emphasis is placed on patrol techniques, crimes in progress, crisis intervention, domestic disputes, Georgia Crime Information Center procedures, electronics communications and police reports. Topics include: foundations, policing skills and communication skills. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1022 - Method Criminal Investigat-BLE**

4 Credits

This course presents the fundamentals of criminal investigation. The duties and responsibilities of the investigator both in field and in the courtroom are highlighted. Emphasis is placed on techniques commonly utilized by investigative personnel as well as the procedures used for investigating various crimes. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1023 - Investigative Services for Basic POST Certificatio****Corequisites:** LETA 1011, LETA 1017, LETA 1027, LETA 1029, LETA 1031

4 Credits

This course presents the fundamentals of criminal investigation. The duties and responsibilities of the investigator both in field and in the courtroom are highlighted. Emphasis is placed on techniques commonly utilized by investigative personnel as well as the procedures used for investigating various crimes. This course is limited to students enrolled in the Basic POST Technical Certificate of Credit.

**LETA 1024 - Criminal Law for CRJU for BLE****Prerequisite:** LETA 1032

4 Credits

This course introduces criminal law in the United States, but emphasizes the current specific status of Georgia criminal law. The course will focus on the most current statutory contents of the Official Code of Georgia Annotated (O.C.G.A.) with primary emphasis on the criminal and traffic codes. Topics include: historic development of criminal law in the United States; statutory law, Georgia Code (O.C.G.A.) Title 16 - Crimes and Offenses; statutory law, Georgia Code (O.C.G.A.) Title 40 - Motor Vehicle and Traffic Offenses; and Supreme Court rulings that apply to criminal law. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit

**LETA 1026 - Criminal Procedure for BLE****Prerequisite:** LETA 1024

4 Credits

Introduces the procedural law of the criminal justice system which governs the series of proceedings through which government enforces substantive criminal law. The course offers an emphasis on the laws of arrest and search and seizure; the rules of evidence, right to counsel, and the rights and duties of both citizens and officers. The course covers in depth appropriate Case Law and court rulings that dictate criminal procedure on the State and Federal Level. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1027 - Law Enforcement Procedures for Basic POST Certific****Corequisites:** LETA 1011, LETA 1017, LETA 1023, LETA 1029, LETA 1031

3 Credits

Introduces the procedural law of the criminal justice system which governs the series of proceedings through which government enforces substantive criminal law. The course offers an emphasis on the laws of arrest and search and seizure; the rules of evidence, right to counsel, and the rights and duties of both citizens and officers. The course covers in depth appropriate Case Law and court rulings that dictate criminal procedure on the State and Federal Level. This course is limited to students enrolled in the Basic POST Certification Technical Certificate of Credit.

**LETA 1028 - Police Traffic & Investiga-BLE**

3 Credits

This course examines enforcement of traffic laws and procedures for traffic accident investigation. Emphasis is placed on Georgia traffic laws, traffic law enforcement, recognition of impaired driving, and traffic accident investigation. Topics include: regulations, impaired driving, and traffic accident investigation. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1029 - Traffic Services for Basic POST Certification****Corequisites:** LETA 1011, LETA 1017, LETA 1023, LETA 1027, LETA 1031

3 Credits

This course examines enforcement of traffic laws and procedures for traffic accident investigation. Emphasis is placed on Georgia traffic laws, traffic law enforcement, recognition of impaired driving, and traffic accident investigation. Topics include: regulations, impaired driving, and traffic accident investigation. This course is limited to students enrolled in the Basic POST Certification Technical Certificate of Credit.

**LETA 1030 - Intro to Criminal Justice-BLE****Prerequisite:** LETA 1024

3 Credits

This course examines the principles of the organization, administration, and duties of federal, state and local law enforcement agencies. Topics include: history and philosophy of law enforcement, evaluation of administrative practices, problems in American law enforcement agencies, emerging concepts, professionalism, community crime prevention programs, physical fitness and stress. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1031 - Community Relations for Basic POST Certification****Corequisites:** LETA 1011, LETA 1017, LETA 1023, LETA 1027, LETA 1029

3 Credits

This course examines the connection between law enforcement and the community it serves. Specifically, concepts of community policing, daily patrols, interacting with the public, and communicating effectively. It also covers the role of mental health and stress and its influence on law enforcement interactions with the public. This course is limited to students enrolled in the Basic POST Certification Technical Certificate of Credit.

**LETA 1032 - Intro to Criminal Justice-BLE**

3 Credits

Introduces the development and organization of the criminal justice system in the United States. Topics include: the American criminal justice system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1034 - Constitutional Law CRJU-BLE**

**Prerequisite:** LETA 1024

3 Credits

This course 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 U.S. Constitution, the Bill of Rights and the Fourteenth Amendment. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit

**LETA 1035 - Criminal Law for Basic POST Certification**

3 Credits

**LETA 1037 - Emergency Vehicle Operation Course for Basic Post**

**Prerequisite:** LETA 1011

22 Credits

This course provides the student of the Basic Law Enforcement Academy with an understanding of appropriate driving actions, terminology, local responsibility, specific statutes, and safety considerations as well as demonstrate proficiency in the operation of an emergency vehicle. This course is limited to students enrolled in the Basic Law Enforcement Technical Certificate of Credit.

**LETA 1039 - Firearms Training for Basic POST Certification**

**Prerequisite:** LETA 1011

4 Credits

This course provides the student of the Basic Law Enforcement Academy with an understanding of terminology, legal requirements, liability, safety considerations, tactics, procedures, firearms nomenclature, fundamentals of marksmanship, fundamental simulation in the use of deadly force and the opportunity to demonstrate proficiency in marksmanship. This course is limited to students enrolled in the Basic POST Certification Certificate of Credit.

**LETA 1100 - Intro to Comm. Officer**

3 Credits

This course is designed to introduce the student to the Communications Officer profession. Instruction is designed to help the student develop a working knowledge of the Communications Officer profession, to include the role and function of Communications Officers; the training standards expected of Communications Officers; the role of Communications Officers in the communications process; and how to manage the stress involved in managing multiple emergency calls simultaneously. This course includes study designed to reinforce important communications concepts, and includes practical exercises designed to test the students abilities to receive and document emergency calls, and manage the stress inherent to receiving emergency calls.

**LETA 1101 - Crisis Special Pop. Comm. Op**

3 Credits

This course is designed to address the fundamental principles of communicating with special needs populations, responding to crisis situations, and emergency management. This course also includes instruction in how to properly conduct radio broadcasts in a public safety setting. This course includes practical exercises designed to test the students abilities to receive and document TTY emergency calls, coordinate multiple emergency management agency responses, and properly broadcast radio messages to first responders.

**LETA 1102 - Applied Communication**

3 Credits

This course is designed to address the specific procedures used to dispatch emergency and non-emergency calls for service to law enforcement, emergency medical services, and fire services. This course also includes instruction on the communications officers role in relaying information related to terroristic activities to first responders. This course includes practical exercises designed to test the students abilities to properly transmit and document radio broadcasts sent to first responders.

**LOGI 1000 - Business Logistics**

3 Credits

Provides a general knowledge of current management practices in logistics management. The focuses of the course will be on planning, organizing, and controlling of these activities, key elements for successful management in any organization. The course will also introduce student to Transport, Inventory, and Location strategies, Customer Service Goals and Organization and Control.

**LOGI 1010 - Purchasing**

3 Credits

Provides a general knowledge of purchasing for todays Supply Chains. The student will be introduced to Crossfunctional teaming, Purchasing and Supply Performance, Supplier Integration into new Product Development, Supplier Development, Strategic Cost Management and Total Ownership Cost (TOC), and many other topics. This course along with other Supply Chain based courses will give the student the foundation needed to make a difference in obtaining low costs, quality products for their organizations.

**LOGI 1020 - Materials Management**

3 Credits

This course will introduce students to materials Management by learning the planning production process, master scheduling, material requirements, and forecasting material demands and inventory levels. This course is designed to build on the students knowledge of supply chains and how effective material management improves supply chain performance.

**MAST 1010 - Legal&EthicConcerns/Med Office**

2 Credits

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; as well as ethics bioethical issues and HIPAA.

**MAST 1030 - Pharmacology in the Med Office****Prerequisite:** MATH 1012

4 Credits

Introduces medication therapy with emphasis on safety; classification of medications; their actions; side effects; medication and food interactions and adverse reactions. Also introduces basic methods of arithmetic used in the administration of medications. Topics include: introductory pharmacology; dosage calculation; sources and forms of medications; medication classification; and medication effects on the body systems.

**MAST 1060 - Medical Office Procedures**

Credits

**MAST 1080 - Medical Assisting Skills I****Prerequisite:** ALHS 1011

4 Credits

Introduces the skills necessary for assisting the physician with a complete history and physical in all types of medical 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 age and gender-specific examinations and diagnostic procedures; vital signs/mensuration; medical office surgical procedures and electrocardiography.

**MAST 1090 - Medical Assisting Skills II****Prerequisite:** MAST 1010

4 Credits

Further student knowledge of the more complex activities in a physician's office. Topics include: collection/examination of specimens and CLIA regulations/risk management; urinalysis; venipuncture; hematology and chemistry evaluations; advanced reagent testing (Strep Test HcG etc); administration of medications; medical office emergency procedures and emergency preparedness; respiratory evaluations; principles of IV administration; rehabilitative therapy procedures; principles of radiology safety and maintenance of medication and immunization records.

**MAST 1100 - Medical Insurance Management****Prerequisite:** MAST 1010

2 Credits

Emphasizes essential skills required for the medical practice. Topics include: managed care reimbursement and coding.

**MAST 1110 - Administrative Practice Manage****Prerequisite:** ALHS 1011

3 Credits

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.

**MAST 1120 - Human Path Cond in Med Office****Prerequisite:** ALHS 1011

3 Credits

Provides fundamental information concerning common diseases and disorders of each body system. For each system the disease or disorder is highlighted including: description etiology signs and symptoms diagnostic procedures treatment management prognosis and prevention. Topics include: introduction to disease and diseases of body systems.

**MAST 1170 - Medical Assisting Externship****Prerequisite:** MAST 1030

6 Credits

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 setting at a professional level of technical application and requires concentration practice and follow-through. Topics include: application of classroom knowledge and skills and functioning in the work environment.

**MAST 1180 - Medical Assisting Seminar**

**Prerequisite:** MAST 1030

3 Credits

Seminar focuses on job preparation and maintenance skills and review for the certification examination. Topics include: letters of application resumes completing a job application job interviews follow-up letter/call letters of resignation and review of program competencies for employment and certification.

**MATH 0098 - Pre-diploma Math**

3 Credits

Emphasizes basic algebra skills. Topics include introduction to real numbers and algebraic expressions solving linear equations graphs of linear equations polynomial operations and polynomial factoring.

**MATH 0099 - Pre-degree Math**

**Prerequisite:** MATH 0098

3 Credits

Emphasizes intermediate algebra skills. Topics include factoring inequalities rational expressions and equations linear graphs slope and applications systems of equations radical expressions and equations and quadratic equations.

**MATH 1011 - Business Mathematics**

3 Credits

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.

**MATH 1012 - Foundations of Mathematics**

3 Credits

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.

**MATH 1013 - Algebraic Concepts**

3 Credits

Emphasizes concepts and operations which are applied to the study of algebra. Topics include basic mathematical concepts basic algebraic concepts and intermediate algebraic concepts.

**MATH 1015 - Geometry and Trigonometry**

3 Credits

Emphasizes basic geometric and trigonometric concepts. Topics include measurement conversion geometric terminology and measurements and trigonometric terminology and functions.



**MATH 1017 - Trigonometry**

3 Credits

Emphasizes trigonometric concepts logarithms and exponential functions. Topics include trigonometric concepts logarithms and exponentials.

**MATH 1101 - Mathematical Modeling**

3 Credits

Emphasizes functions using real-world applications as models. Topics include fundamental concepts of algebra; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models; systems of equations; and optional topics in algebra.

**MATH 1103 - Quan. Skills and Reasoning****Prerequisite:** MATH 0098

3 Credits

**MATH 1111 - College Algebra**

3 Credits

**MATH 1112 - College Trigonometry**

3 Credits

Emphasizes techniques of problem solving using trigonometric concepts. Topics include trigonometric functions properties of trigonometric functions vectors and triangles inverse of trigonometric functions and graphing of trigonometric functions logarithmic and exponential functions and complex numbers.

**MATH 1113 - Precalculus**

3 Credits

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.

**MATH 1127 - Introduction to Statistics**

3 Credits

Emphasizes 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 tests and linear regression.

**MATH 1131 - Calculus**

4 Credits

Topics include the study of limits and continuity derivatives and integrals of functions of one variable. Applications are incorporated from a variety of disciplines. Algebraic trigonometric exponential and logarithmic functions are studied.

### **MATH 1132 - Calculus II**

4 Credits

This course includes the study of techniques of integration, application of the definite integral, an introduction to differential equations, improper integrals, sequences, and series.

### **MCHT 1011 - Introduction to Machine Tool**

4 Credits

Introduces the fundamental concepts and procedures necessary for the safe and efficient use of basic machine tools. Topics include: machine shop safety, terminology, use of hand and bench tools, analysis of measurements, part layout, horizontal and vertical band saw setup and operation, drill press setup and operation, and quality control.

### **MCHT 1012 - Print Reading for Machine Tool**

3 Credits

Introduces the fundamental concepts necessary to develop blueprint reading competencies, interpret drawings, and produce sketches for machine tool applications. Topics include interpretation of blueprints, sketching, sectioning, geometric dimensioning and tolerancing, and assembly drawings.

### **MCHT 1013 - Machine Tool Math**

**Prerequisite:** MATH 0098

3 Credits

This course develops mathematical competencies as applied to machine tool technology. Emphasis is placed on the use of machining formulas by incorporating algebraic, geometric, and trigonometric functions. Topics include machining algebra and geometry, applied geometry, and applied trigonometry.

### **MCHT 1020 - Heat Treatment and Surface Grinding**

4 Credits

Provides instruction in the setup, operations, maintenance, and assembly operations of surface grinders. Introduces the properties of various metals, production methods, and identification of ferrous and non-ferrous metals. Topics include: heat treatment safety, metallurgy principles, heat treatment of metals, surface grinders, surface grinder maintenance, surface grinder setup, surface grinder operations, and safety.

### **MCHT 1119 - Lathe Operations I**

4 Credits

Provides opportunities for students to develop skill in the setup and operation of metal cutting lathes. Topics include: safety, lathes parts and controls, lathe tooling and tool bit grinding, lathe calculations, lathe setup and operations.

### **MCHT 1120 - Mill Operations I**

4 Credits

Provides instruction in the setup and use of the milling machine. Topics include: safety, milling machines, milling machine setup, and milling machine operations.

**MCHT 1219 - Lathe Operations II**

4 Credits

Provides further instruction for students to develop skill in the use of lathes. Topics include: lathes, lathe setup, lathe operations, and safety.

**MCHT 1220 - Mill Operations II**

4 Credits

Provides further instruction for students to develop skills in the use of milling machines. Topics include: safety, advanced milling calculation, advanced milling machine setup and operations.

**MCST 1010 - Motorcycle Engines&Drive Train**

6 Credits

This course covers 2-cycle and 4-cycle engines their transmissions and their final drive systems. It also provides an overview of the exhaust and lubrication systems. Upon successful completion of this course the student will have disassembled inspected reassembled and operationally tested motorcycle engines and drive trains.

**MCST 1020 - Motorcycle Electrical Systems**

6 Credits

This course covers the theory operation and repair of electrical systems and components on modern motorcycles. Upon completion the student should be able to diagnose service rebuild and adjust the components of various motorcycle electrical and accessory systems.

**MCST 1030 - Motorcycle Fuel&Exhaust System**

4 Credits

This course covers the theory operation and repair of fuel tanks petcocks carburetors fuel injection systems and exhaust systems on modern motorcycles. Upon completion of this course the student should be able to diagnose service rebuild and adjust the components of various motorcycle fuel systems. The student should also be able to diagnose service and repair exhaust systems.

**MCST 1040 - Motorcycle Chassis&Susp System**

4 Credits

This course covers the maintenance adjustment and repair of motorcycle chassis systems. Topics include: brakes front and rear suspensions and wheels. Upon completion the student should be able to diagnose service and repair motorcycle chassis and suspension systems.

**MCST 1110 - Motorcycle Maintenance**

5 Credits

This course serves as an introduction to the field of professional motorcycle service. Topics include: advanced shop and tool techniques preventive maintenance adjustments and minor repairs. Upon completion students should be able to perform basic inspection and service of motorcycles and ATVs.

### **MCST 1120 - Troubleshooting & Diagnostics**

**Prerequisite:** MCST 1010

5 Credits

This course covers procedures for efficient and accurate diagnosis of components in the mechanical electrical and fuel systems of the motorcycle. Emphasis is placed on developing logical procedures for diagnosis. Upon completion the student should be able to perform accurate diagnosis of various motorcycle systems.

### **MCST 2000 - Motorcycle Technology Internsh**

**Prerequisite:** MCST 1010

4 Credits

This internship course provides the student with opportunities for application and reinforcement of motorcycle maintenance service and employability principles in an actual job setting. It acquaints the student with work situations and provides insights into the work environment of a repair shop.

### **MCTX 2250 - Mechatronics Capstone**

3 Credits

This capstone course for the mechatronics specialization track will be used as the final project for the mechatronics students. Students will integrate and build upon knowledge and skills gained in previous courses to design, assemble, and analyze mechatronic systems using modern methods and tools. Lectures and laboratory experiences will include control theory, dynamic system behavior, communication protocols, pneumatics, embedded programming, and analysis in time-and-frequency domains. The course concludes with an open-ended team-based multi-week design project.

### **MEGT 1010 - Manufacturing Processes**

**Prerequisite:** ENGT 1000

3 Credits

This course introduces industrial manufacturing processes that employ processes for material shaping, joining, machining and assembly to the student. Topics include: casting, shaping and molding of metals, ceramics and polymers; particulate processing of metals and ceramics, metal forming, machining, sheet metal working, joining and assembling, surface treatment, and manufacturing design considerations. Emphasis is provided on raw materials, quality, and costs of finished products. The course includes lab exercises that demonstrate the applications of the topics covered in actual manufacturing processes.

**MEGT 2100 - Manufacturing Quality Control****Prerequisite:** ENGT 1000

3 Credits

This course introduces statistical quality control and quality assurance techniques in manufacturing processes. Topics include: fundamentals of Six Sigma methodology, creating customer focus, statistical control techniques, control charts, process capability, failure modes and effects analysis (FMEA), teams and teamwork, leadership and strategic planning, optimization and reliability studies, lean manufacturing, and inspection tools and practices. The course is an effective training aid for those preparing to take the American Society for Quality (ASQ) Certified Quality Inspector (CQI) examination. Students will perform lab exercises applying quality concepts, tools and techniques to realistic industry examples

**MGMT 1100 - Principles of Management**

3 Credits

Develops skills and behaviors necessary for successful supervision of people and their 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 Managers 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.

**MGMT 1105 - Organizational Behavior**

3 Credits

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.

**MGMT 1110 - Employment Law**

3 Credits

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) Workers Compensation Unemployment Compensation and National Labor Relations Act.

**MGMT 1111 - Employee Compensation & Benefits**

3 Credits

This course provides students with theoretical and practical knowledge of the design and implementation of effective compensation and benefits programs. Topics include: compensation program development, legal requirements of employee benefit packets, effect of compensation on employee morale, current trends and practices in compensation and benefits, and calculation of compensation costs.

**MGMT 1115 - Leadership**

3 Credits

This course familiarizes the student with the principles and techniques of sound leadership practices. Topics include: Characteristics of Effective Leadership Styles History of Leadership Leadership Models The Relationship of Power and Leadership Team Leadership The Role of Leadership in Effecting Change.

**MGMT 1120 - Introduction to Business**

3 Credits

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.

**MGMT 1125 - Business Ethics**

3 Credits

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 the 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.

**MGMT 1135 - Managerial Accting & Finance**

3 Credits

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.

**MGMT 2115 - Human Resource Management**

3 Credits

This course is designed as an overview of the Human Resource Management (HRM) function and of the manager and supervisors 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.

**MGMT 2120 - Labor Management Relations**

3 Credits

Provides a student 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 student 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 simulate workplace applications in labor relations.

**MGMT 2125 - Performance Management**

3 Credits

Develops an understanding of 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.

**MGMT 2130 - Employee Training &Development**

3 Credits

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.

**MGMT 2135 - Management Communication Tech**

3 Credits

Emphasizes developing the full range of communication strategies required to become a successful manager and prepares managers for the skills required to communicate effectively in business today. Topics include:

Organizational/Strategic Communication Interpersonal Communication Presentation Techniques Presentation Technology + Applications Team/Group Communication Intercultural Communication External Stakeholder Communication and Using Spreadsheet Applications for Business Problem Solving.

**MGMT 2140 - Retail Management**

3 Credits

Develops a working knowledge of managing a retail business from a variety of perspectives with an emphasis on store management. The emphasis is on contemporary issues in retailing, particularly the process of supervising customer service and dealing with the changing demographics of retailing. An application focus on the use of information technologies, the internet, and electronic retailing is intended to give the student hands-on experience in retail management. Topics include: strategic retail management; store, non-store, and nontraditional retailing; retail human resource management; developing a customer-focused service strategy; managing customer service; retail operations and financial management; merchandise management; buying and inventory management; global, cataloging, and electronic retail management, information technology applications in retailing.

**MGMT 2145 - Business Plan Development**

3 Credits

Provides students with knowledge and skills necessary for a manager or entrepreneur to develop and implement a business plan. Topics include: business/community compatibility, introduction to cash flow and break even analysis, development of product/service idea, determination of market feasibility, determination of financial feasibility, development of marketing strategy, development of operations outline, and application of financial concepts.

**MGMT 2150 - Small Business Mgmt**

3 Credits

This course introduces the essentials of starting, managing, and growing a small business. Topics include: the role of the entrepreneur, pricing, advertising, financing, and layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business.

**MGMT 2155 - Quality Management Principles**

3 Credits

Familiarizes the student with the principles and methods of Quality Management (QM). Topics include: the history of quality control quality control leaders quality tools QM implementation team building for QM and future quality trends.

**MGMT 2200 - Production/Operations Mgmt**

3 Credits

This course introduces the essentials of starting, managing, and growing a small business. Topics include: the role of the entrepreneur, pricing, advertising, financing, and layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business.



**MGMT 2205 - Service Sector Management**

3 Credits

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.

**MGMT 2210 - Project Management**

3 Credits

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.

**MGMT 2215 - Team Project**

3 Credits

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. Students will be put into teams will work on team projects to demonstrate their understanding of the competencies of this course and will do peer evaluation. Potential team projects could include authoring a management book covering the competencies videos web sites bulletin boards and slide presentations amongst others.

**MGMT 2216 - Schedule and Cost Control**

Credits

**MKTG 1100 - Principles of Marketing**

3 Credits

This course emphasizes the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include effective communication in a marketing environment role of marketing knowledge of marketing principles marketing strategy and marketing career paths.

**MKTG 1130 - Business Regs and Compliance**

3 Credits

This course introduces the study of contracts and other legal issues and obligations for businesses. Topics include: creation and evolution of laws court decision processes legal business structures sales contracts commercial papers Uniform Commercial Code and risk-bearing devices.

**MKTG 1160 - Professional Selling**

3 Credits

This course introduces professional selling skills and processes. Topics include: professional selling product/sales knowledge customer analysis/relations selling process sales presentations and ethics of selling.

**MKTG 1190 - Promotion & Marketing Comm**

3 Credits

This course introduces the fundamental principles and practices associated with promotion and communication. Topics include: purposes of promotion and IMC principles of promotion and Integrated Marketing Communication (IMC) budgeting regulations and controls media evaluation and target market selection integrated marketing plans trends in promotion and promotion and communication career paths.

**MKTG 1210 - Services Marketing**

3 Credits

This course introduces the marketing skills required in a service business. Topics include: foundation of services marketing, managing service delivery/encounters, services marketing strategy, and aligning strategy service design, and standards.

**MKTG 1270 - Visual Merchandising**

3 Credits

This course focuses on the components of the visual merchandising of goods and services. Topics include: design and color principles tools and materials of the trade lighting and signs installation of displays store planning safety and related areas of visual merchandising and display.

**MKTG 1370 - Consumer Behavior**

3 Credits

This course analyzes consumer behavior and applicable marketing strategies. Topics include: the nature of consumer behavior, influences on consumer behavior, consumer decision-making process, role of research in understanding consumer behavior, and marketing strategies.

**MKTG 2000 - International Marketing**

**Prerequisite:** MKTG 1100

3 Credits

This course introduces opportunities and international strategies employed in the global marketplace. Topics include: the environment of international marketing, analyze international marketing opportunities, international market entries, design an international marketing strategy, and career paths in international marketing.

**MKTG 2010 - Small Business Management**

3 Credits

This course introduces competencies required in managing a small business. Topics include: nature of small business management business management and organizational change marketing strategies employee relations financial planning and business assessment and growth.

**MKTG 2030 - Digital Publishing and Design**

Credits

**MKTG 2060 - Marketing Channels**

3 Credits

Emphasizes the design and management of marketing channels. Topics include: role of marketing channels, channel design and planning, supply chain management, logistics, and managing marketing channels.

**MKTG 2070 - Buying and Merchandising**

3 Credits

Develops buying and merchandising skills required in retail or e-business. Topics include: principles of merchandising inventory control merchandise plan assortment planning buying merchandise and pricing strategies.

**MKTG 2090 - Marketing Research****Prerequisite:** MKTG 1100

3 Credits

This course conveys marketing research methodology. Topics include: role of marketing research, marketing research process, ethics in marketing research, research design, collection data analysis, reporting, application of marketing research, and marketing research career paths.

**MKTG 2160 - Advanced Selling**

Credits

**MKTG 2210 - Entrepreneurship**

6 Credits

This course provides an overview of the steps in establishing a business. A formal business plan will be created. Topics include planning, location, analysis, financing, developing a business plan, and entrepreneurial ethics and social responsibility.

**MKTG 2270 - Retail Operations Mgmt**

3 Credits

This course emphasizes the planning, staffing, leading, organizing, and controlling management functions in a retail operation. Topics include: the retailing environment, retailing strategy, supply chain management, financial planning, financial strategies, employee relations, and career paths in retailing.

**MKTG 2290 - Marketing OBI**

3 Credits

This course applies and reinforces marketing and employability skills in an actual job placement or practicum experience. Topics include: problem solving adaptability to the job setting use of proper interpersonal skills application of marketing skills and professional development.

**MKTG 2300 - Marketing Management**

**Prerequisite:** MKTG 1100

3 Credits

This course reiterates the program outcomes for marketing management through the development of a marketing plan. Topics include: the marketing framework, the marketing plan, and preparing a marketing plan for a new product

**MKTG 2500 - Exploring Social Media**

**Corequisite:** MKTG 1100

3 Credits

This course explores the environment and current trends of social media as it relates to marketing functions. Topics include: history of the internet and social media, social media dashboards, legal issues of social media, outsourcing vs. in-house administration, and the current social media ecosystem including applications in the following areas: communication, collaboration/authority building, multimedia, reviews and opinions, and entertainment

**MKTG 2550 - Analyzing Social Media**

**Prerequisite:** MKTG 1100

**Corequisite:** MKTG 2500

3 Credits

This course analyzes the application of social media to an integrated marketing communication plan. Topics include technical writing for social media, social media auditing, Social Media ROI, trend analysis, social media analytics, and Customer Experience Management(CEM).

**MUSC 1101 - Music Appreciation**

3 Credits

Explores the formal elements of musical composition, musical form and style, and the relationship of music to historical periods. The course includes listening and analysis of well known works of music. This course encourages student interest in musical arts beyond the classroom.

**NAST 1100 - Nurse Aide Fundamentals**

6 Credits

Introduces student to the role and responsibilities of the Nurse Aide. Emphasis is placed on understanding and developing critical thinking skills as well as demonstrating knowledge of the location and function of human body systems and common disease processes; responding to and reporting changes in a residents /patients condition nutrition vital signs; nutrition and diet therapy; disease processes; vital signs; observing reporting and documenting changes in a residents condition; emergency concerns; ethics and legal issues and governmental agencies that influence the care of the elderly in long term care settings; mental health and psychosocial well-being of the elderly; use and care of mechanical devices and equipment; communication and interpersonal skills and skills competency based on federal guidelines. Specific topics include: roles and responsibilities of the Nurse Aide; communication and interpersonal skills; topography structure and function of the body systems; injury prevention and emergency preparedness; residents rights; basic patient care skills; personal care skills; and restorative care.

**NAST 1150 - Patient Care Fundamentals****Prerequisite:** ALHS 1090

7 Credits

Introduces student to the occupation of Certified Nurse Assistant. Emphasis is placed on human anatomy and physiology, cardiac pulmonary resuscitation, and nutrition and diet therapy. Topics include: role 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 performance skills standards and procedures.

**NAST 2100 - Nurse Aide Accelerated****Corequisite:** ALHS 1090

7 Credits

Introduces student to the role and responsibilities of the Nurse Aide. Emphasis is placed on understanding and developing critical thinking skills, as well as demonstrating knowledge of the location and function of human body systems and common disease processes; responding to and reporting changes in a residents /patients condition, nutrition, vital signs; nutrition and diet therapy; disease processes; vital signs; observing, reporting and documenting changes in a residents condition; emergency concerns; ethics and legal issues and governmental agencies that influence the care of the elderly in long term care settings; mental health and psychosocial well-being of the elderly; use and care of mechanical devices and equipment; communication and interpersonal skills and skills competency based on federal guidelines. Specific topics include: roles and responsibilities of the Nurse Aide; communication and interpersonal skills; topography, structure, and function of the body systems; injury

**NAST 2105 - Nurse Aide Fast Track**

3 Credits

Introduces student to the role and responsibilities of the Nurse Aide. Emphasis is placed on understanding and developing critical thinking skills, as well as demonstrating knowledge of the location and function of human body systems and common disease processes; responding to and reporting changes in a residents /patients condition, nutrition, vital signs; nutrition and diet therapy; disease processes; vital signs; observing, reporting and documenting changes in a residents condition; emergency concerns; ethics and legal issues and governmental agencies that influence the care of the elderly in long term care settings; mental health and psychosocial well-being of the elderly; use and care of mechanical devices and equipment; communication and interpersonal skills and skills competency based on federal guidelines. Specific topics include: roles and responsibilities of the Nurse Aide; communication and interpersonal skills; topography, structure, and function of the body systems; injury

**OPHD 1010 - Intro to Ophthalmic Optics**

3 Credits

Introduces students to the eye-care field and the profession of Opticianry. Emphasis is placed on the scope of activities performed by opticians. Topics include: scope and practice of a licensed optician; eye-care professions; major divisions of Opticianry; basic ocular anatomy; light and refraction; vision problems; corrective lenses; and national and state regulations.

**OPHD 1020 - Eye Anatomy and Physiology**

3 Credits

Develops students\* knowledge of the anatomy and physiology of the eye. Emphasis is placed on the corneal metabolism and its accommodation of a contact lens. Topics include: anatomy of the eye; physiology of the eye; eye diseases and abnormalities; anterior and posterior segments; drugs and treatment methods; and ophthalmic terminology.

**OPHD 1030 - Applied Optical Theory****Prerequisite:** OPHD 1010

2 Credits

Introduces students to properties of light and the laws of geometrical optics. Emphasis is placed on understanding major theories of light and the principles of plane and curved surfaces of mirrors and lenses. Topics include: light and vision; refraction; lens modified light; and lens systems.

**OPHD 1060 - Optical Laboratory Technique I****Prerequisite:** OPHD 1010

6 Credits

Introduces students to the operations involved in lens fabrication. Emphasis is placed on gaining knowledge of equipment requirements and developing surfacing and finishing techniques. Topics include: safety and environmental procedures and lens processing terminology; lens surfacing and finishing equipment; lens blank selection and layout; lens surfacing techniques; lens finishing techniques; lens final insertion and mounting techniques; and standard alignment inspection of lenses and lensometer operation.

**OPHD 1070 - Optical Laboratory Techniq II****Prerequisite:** OPHD 1060

6 Credits

This course continues students\* study of lens fabrication. Emphasis is placed on using specialized lens materials and multifocal surfacing and finishing techniques. Topics include: specialized lens fabrication; multifocal lens positioning; inspection of multifocal lenses; optical calculations; frame repairs; optical equipment maintenance; advanced optical calculations and high index lenses.

**OPHD 1080 - Contact Lens I****Prerequisite:** OPHD 1020

5 Credits

Introduces students to the contact lens field. Emphasis is placed on the development of contact lenses to correct visual defects types of contact lenses and consumer selection. Topics include: safety and environmental procedures; contact lens history; contact lens instruments; contact lens terminology; corneal topography; lens types prefitting evaluation examination and patient/lens selection; adverse effects of lens wear; lens selection inspection and verification; fitting guidelines and regulations; and follow-up care.

**OPHD 2090 - Frame Selection**

5 Credits

Introduces students to frame selection and dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the eyewear consumer. Topics include: ocular measurements; frame selection; frame materials; eyewear fitting techniques; frame adjustment; administrative procedures; lens finishing; matching frames to consumer needs; managed care terminology; information technology; communication with consumers prescribers and suppliers; effective consumer services; and problem solving.

**OPHD 2120 - Lens Selection****Prerequisite:** OPHD 1010

6 Credits

This course introduces students to techniques of ophthalmic sales and emphasizes effective consumer service. Topics include: managed care terminology; information gathering; information technology; communicating with consumers, prescribers and suppliers; ophthalmic sales skills; effective consumer services and problem solving; and lens finishing. This course continues students' study of eyewear dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the eyewear consumer. Topics include: prescription lens materials; lens positioning; multifocal lenses; absorptive lenses; special lens coatings; prescription lens selection; lens finishing; use and care of eyewear; matching lenses to consumer needs; optical, physiological, and psychological problems; applied lensmeter techniques; information gathering; and ophthalmic sales skill.

**OPHD 2130 - Contact Lens II****Prerequisite:** OPHD 1080

5 Credits

This course continues students\* study of contact lenses with emphasis on rigid and gas permeable trial and prescriptive lens fitting techniques. Topics include: lens selection; inspection and verification; fitting guidelines and regulations; follow-up care; soft lens care and storage; fitting specialty rigid lenses; rigid lens care and storage; and fitting specialty soft contact lenses.

**OPHD 2170 - Contact Lens Review**

**Prerequisite:** OPHD 2130

3 Credits

This course continues students study of contact lens dispensing knowledge skills. Emphasis is placed on reviewing types of contact lenses fitting techniques and further development of associated skills. Topics include: soft contact lens fitting; hard contact lens fitting; contact lens instrumentation; effective consumer service; and contact lens regulations.

**OPHD 2180 - Opticianry Review**

**Prerequisite:** OPHD 2090

3 Credits

Continues students\* study of ophthalmic dispensing knowledge and skills. Emphasis is placed on reviewing optical theory laboratory procedures and further development of associated skills. Topics include: optical laboratory; frames and lenses; dispensing techniques; eyewear sales; and eyewear regulations.

**OPHD 2190 - Opticianry OBI**

**Prerequisite:** OPHD 2120

6 Credits

Continues students\* study of ophthalmic dispensing techniques. Emphasis is placed on gaining clinical experience in providing service to the ophthalmic consumer. Topics include: special visual problems; contact lenses; analyzing ophthalmic problems; ordering procedures; marketing eyewear; and work attitudes. 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 required weekly seminar.

**PARA 1100 - Introduction to Law and Ethics**

**Prerequisite:** ENGL 1101

3 Credits

Emphasizes the American legal system the role of the lawyer and legal assistant within that system and the ethical obligations imposed upon attorneys and legal assistants. Topics include: survey of American jurisprudence code of professional responsibility and ethics overview and introduction to areas of law and legal vocabulary.

**PARA 1105 - Legal Research&Legal Writing I**

**Prerequisite:** PARA 1100

3 Credits

Introduces the student to the process of locating statutory judicial administrative and secondary sources on both a state and federal level. The student will utilize both print and electronic research resources. Focuses on the application and reinforcement of basic writing skills familiarizes the student with types of writing typically engaged in by lawyers and legal assistants and prepares the student for legal writing tasks. The student learns to write business letters as well as advisory documents. Topics include: legal analysis and legal correspondence and composition.



**PARA 1110 - Legal Research&Legal WritingII****Prerequisite:** PARA 1105

3 Credits

Builds on competencies acquired in PARA 1102 and continues the process of locating statutory judicial administrative and secondary sources on both a state and federal level. The student will conduct a wider range of research in both print and electronic research resources. Emphasis will be placed on preparation of legal documents. Criminal case documents will be examined but most of the emphasis will be on civil matters. The student will be presented factual scenarios and utilizing these facts research and develop a case from intake to trial.

**PARA 1115 - Family Law****Corequisite:** PARA 1100

3 Credits

Introduces the student to the issues which may arise in family law cases and to the role of the paralegal in assisting the attorney in the development and presentation of such cases. Topics include: issues associated with client and witness interviews marriage validity and dissolution litigation support in family law matters issues concerning children special matters in family law and attorney and paralegal ethical obligations.

**PARA 1120 - Real Estate Law****Prerequisite:** PARA 1100

3 Credits

Introduces the student to the basic concepts of real property law as they pertain to common types of real estate transactions. Additionally emphasis will be placed on practical skills such as document preparation and title examination. Topics include: real estate contracts plat reading and legal descriptions types and purposes of deeds title searches common real estate mortgages and documentation real estate closing and closing statements recordation statutes and requirements and elements of the lease.

**PARA 1125 - Criminal Law & Criminal Proced****Prerequisite:** PARA 1100

3 Credits

Introduces the student to the basic concepts of substantive criminal law and its procedural aspects with an emphasis on the constitutionally protected rights of the accused in the criminal justice system. Topics include: substantive criminal law and procedure and criminal litigation support.

**PARA 1130 - Civil Litigation**

3 Credits

Emphasizes competencies and concepts of civil litigation in both federal and state courts. Topics include: federal and state litigation; trial and pretrial proceedings; litigation ethics; and litigation documents exhibits investigations and interviews.

**PARA 1135 - Wills, Trusts, Probate & Admin**

**Prerequisite:** PARA 1100

3 Credits

Provides a general framework of the substantive theory of wills trusts and estates. Topics include: wills trusts and powers of attorney; probate of wills and administration of estates; document preparation for other probate proceedings; general jurisdiction of the probate court; terminology of wills and estate practice; client interviews; and document preparation.

**PARA 1140 - Tort Law**

**Prerequisite:** PARA 1100

3 Credits

Introduces the student to the basic concepts of substantive tort law. Topics include: concepts of intentional torts negligence and product liability; causation and liability concepts; damages and defenses; and special tort actions and immunities.

**PARA 1145 - Law Office Management**

**Prerequisite:** PARA 1100

3 Credits

Introduces the student to common forms of law practice. The student will be exposed to methods of billing and time-keeping automation in the law office the law office library the appropriate role of support staff in the law office and ethical concerns relevant to law office management. Topics include: forms of law practice and insurance needs support systems support staff and ethical responsibilities.

**PARA 1150 - Contracts, Comm Law&Bus Organ**

**Prerequisite:** PARA 1100

3 Credits

Introduces the student to the basic concepts of legal rules commonly applicable in commercial settings to the basic concepts of substantive contract law and to the formulation and operation of sole proprietorships general partnerships limited partnerships and corporations. Additionally the course explores the basic concepts of agency law. Topics include Constitutional law and its impact on business the essential elements of a contract and related legal principles and the Uniform Commercial Code sole proprietorships partnerships professional associations and other business organizations corporations and tax implications of different organizations.

**PARA 1200 - Bankruptcy/Debt/Credit Relatio**

**Prerequisite:** PARA 1100

3 Credits

Introduces the student to the purpose and application of the Federal Bankruptcy Code and Rules as well as applicable state law related to bankruptcy and debtor-creditor issues. Topics include: the Bankruptcy Code and Rules Bankruptcy Court procedures the preparation of bankruptcy forms and documents state law workouts and collection and the role of the paralegal in a bankruptcy practice.

**PARA 1205 - Constitutional Law****Prerequisite:** PARA 1100

3 Credits

Explains the major legal principles and concepts of the U.S. Constitution including governmental powers and structure, and civil liberties. Additionally, this course includes an exploration of the history of the Constitution and case law interpreting it.

**PARA 1210 - Legal&Policy Issues/Healthcare****Prerequisite:** PARA 1100

3 Credits

Provide an overview of the legal issues involved in the delivery of healthcare and the issues relating to Elder Law. Students will recognize the fundamentals of the healthcare treatment relationship liability issues patient care decisions and the human condition of sickness. They will explore the complexities of health care financing health care access governmental regulations and privacy issues. Topics will also include access to care informed consent patient care decisions the doctor-patient relationship end-of-life decision making legal problems of the elderly law and mental health AIDS and the law and the privatization of health care facilities.

**PARA 1220 - Intellectual Property Law****Prerequisite:** PARA 1100

3 Credits

Introduces the student to the various fields of intellectual property, including: Copyrights, Trademarks, Trade Secrets, Unfair Competition and Patents. Student will practice basic search approaches for copyrights, trademarks and patents along with drafting applications for such. The course take a practice-oriented approach to the subject of intellectual property.

**PARA 1225 - Elder Law****Prerequisite:** PARA 1100

3 Credits

A study of the social and legal issues involved with the representation of the elderly and their families including Social Security pensions annuities age discrimination in employment Medicare Medicaid health care decision-making property management special needs trusts veterans disability benefits guardianships and conservatorships elder abuse elder housing and end of life issues. The course also examines the special ethical issues that often arise for attorneys who represent the elderly.

**PARA 2200 - Paralegal Practicum****Prerequisite:** PARA 1100

6 Credits

Focuses on the application and reinforcement of paralegal skills and employability principles to further professional development through a practicum with simulated work experiences.

**PARA 2205 - Adv Legal Research and Writing**

**Prerequisite:** PARA 1100

3 Credits

Continues to develop writing skills developed in PARA 1105 and 1110 focusing on legal memoranda preparation. Additionally students enhance legal research skill. Course competencies include research methodology legal memoranda preparation and substantive law research.

**PARA 2210 - Paralegal Internship**

**Prerequisite:** PARA 1100

6 Credits

Focuses on the application and reinforcement of paralegal skills in an actual workplace environment or at the discretion of the instructor in a school practicum with simulated work experiences. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into paralegal applications on the job. Topics include: problem solving adaptability to the job setting use of proper interpersonal skills application of paralegal skills in a workplace setting and professional development.

**PARA 2215 - Paralegal Internship II**

**Prerequisite:** PARA 2210

6 Credits

This course continues the focus on the application and reinforcement of paralegal skills in an actual workplace environment, or at the discretion of the instructor, in a school practicum with simulated work experiences. Realistic work situations are used to provided students with insights into paralegal applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of paralegal skills in a workplace setting, and professional development.

**PHLT 1030 - Introduction to Venipuncture**

3 Credits

Provides an introduction to blood collecting techniques and processing specimens. Emphasis is placed on the knowledge and skills needed to collect all types of blood samples from hospitalized patients. Topics include: venipuncture procedure safety and quality assurance; isolation techniques venipuncture problems and definitions; lab test profiles and patient care areas; other specimen collections and specimen processing; test combinations skin punctures and POCT; professional ethics and malpractice; and certification and licensure.

**PHLT 1050 - Clinical Practice**

**Prerequisite:** PHLT 1030

5 Credits

Provides work experiences in a clinical setting. Emphasis is placed on enhancing skills in venipuncture techniques. Topics include: introduction to clinical policies and procedures and work ethics; routine collections: adult pediatric and newborn; and special procedures.

**PHYS 1110 - Conceptual Physics Lab****Prerequisite:** ENGL 1101

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1110. The laboratory exercises for this course include systems of units and systems of measurement, vector algebra, Newtonian mechanics, fluids and thermodynamics, heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.

**PHYS 1110 - Conceptual Physics Lab**

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1110. The laboratory exercises for this course include systems of units and systems of measurement, vector algebra, Newtonian mechanics, fluids and thermodynamics, heat, light, and optics, mechanical waves, electricity and magnetism, and modern physics.

**PHYS 1111 - Introductory Physics Lab I****Prerequisite:** ENGL 1101

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1111. The laboratory exercises for this course include units of measurement, Newton's laws, work energy and power, momentum and collisions, one- and two-dimensional motion, circular motion and law of gravity, rotational dynamics and static equilibrium, elasticity theory, harmonic motion, theory of heat and heat transfer, thermodynamics, wave motion, and sound.

**PHYS 1111 - Introductory Physics Lab I**

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1111. The laboratory exercises for this course include units of measurement, Newton's laws, work energy and power, momentum and collisions, one- and two-dimensional motion, circular motion and law of gravity, rotational dynamics and static equilibrium, elasticity theory, harmonic motion, theory of heat and heat transfer, thermodynamics, wave motion, and sound.

**PHYS 1112 - Introductory Physics Lab II**

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1112. The laboratory exercises for this course include material from electricity and magnetism, geometric optics, and physical optics.

**PHYS 1112 - Introductory Physics Lab II**

1 Credits

Selected laboratory exercises paralleling the topics in PHYS 1112. The laboratory exercises for this course include material from electricity and magnetism, geometric optics, and physical optics.

### **PLBG 1000 - Introduction to Plumbing**

3 Credits

This course provides an introduction to the Plumbing construction trade. The knowledge and skills required to succeed in the Plumbing industry are emphasized. Topics include general safety rules and practices, introduction to construction and the pipe trades, and work ethics, communication, and affective skills and practices.

### **PNSG 1600 - Introduction to Pharmacology and Clinical Calculat**

3 Credits

Applies fundamental mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills and introduces pharmacological classes. Topics include systems of measurement, calculating drug problems, resource materials usage, fundamental pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education. After this pharmacology course, students will have completed a minimum of 85 lecture/lab (4250/50min) hours.

### **PNSG 1605 - Adult Health Nursing I**

6 Credits

Focuses on client care and clinical client care including using the nursing process, performing assessments, developing critical thinking, engaging in client education, and displaying cultural competence in the adult population and with attention to special populations. Lecture/lab topics include terminology associated with healthcare, structure and function of body systems, health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders, and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions concerning the cardiovascular, respiratory, and hematological and immunological systems. Clinical topics include but are not limited to hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology, and standard precautions about cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems. This course contains lectures and regular lab 4125/50 =82.5 hours and clinical has 3750/60 =62.5 hours.

### **PNSG 1605 - Adult Health Nursing I**

6 Credits

Focuses on client care and clinical client care including using the nursing process, performing assessments, developing critical thinking, engaging in client education, and displaying cultural competence in the adult population and with attention to special populations. Lecture/lab topics include terminology associated with healthcare, structure and function of body systems, health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders, and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions concerning the cardiovascular, respiratory, and hematological and immunological systems. Clinical topics include but are not limited to hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology, and standard precautions about cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems. This course contains lectures and regular lab 4125/50 =82.5 hours and clinical has 3750/60 =62.5 hours.

**PNSG 1615 - Adult Health Nursing II**

6 Credits

Focuses on client care and clinical client care including using the nursing process, performing assessments, developing critical thinking, engaging in client education and displaying cultural competence in the adult population and with attention to special populations. Lecture/lab topics include functions of the human body, terminology associated with healthcare, health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the endocrine, gastrointestinal, and urinary systems. Clinical topics include, but are not limited to: hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology, and standard precautions concerning cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems. This course contains lectures and regular lab 4125/50 =82.5 hours and clinical has 3750/60 =62.5 hours.

**PNSG 1620 - Adult Health Nursing III**

6 Credits

Focuses on client care and clinical client care including using the nursing process, performing assessments, developing critical thinking, engaging in client education, and displaying cultural competence in the adult population and with attention to special populations. Lecture/lab topics include functions of the human body, terminology associated with healthcare, health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the neurological and sensory systems, disaster preparedness, emergency response, triage, and bioterrorism. Clinical topics include, but are not limited to: hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology, and standard precautions concerning cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems. This course contains lectures and regular lab 4125/50 =82.5 hours and clinical has 3750/60 =62.5 hours.

**PNSG 1625 - Adult Health Nursing IV**

6 Credits

Focuses on client care and clinical client care including using the nursing process, performing assessments, developing critical thinking, engaging in client education, and displaying cultural competence in the adult population and with attention to special populations. Lecture/lab topics include functions of the human body, terminology associated with healthcare, health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the integumentary and musculoskeletal systems and oncology. Clinical topics include, but are not limited to: hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology, and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems. After, this adult health course students will have completed a minimum of 4125/50= 82.5 lecture/lab contact hours and 3750/60=62.5 clinical hour.

**PNSG 1630 - Mental Health Nursing**

4 Credits

Presents concepts within the field of mental health nursing and their application to everyday human behavior, thinking, emotion, and communication. Focuses on health management and maintenance and the prevention of illness, care of the mental health patient as a whole, and deviations from the normal state of health. Emphasis is placed on students understanding mental health principles and their application within the context of family, work and social interactions. Topics include an overview of psychological disorders and their treatments; terminology associated with health care, stress and health; health management and maintenance and prevention of illness; care of the mental health patient as a whole, and deviations from the normal state of health in the mental health client; client care, pharmacology, and diet therapy of the mental health client; and standard precautions. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education, displaying cultural competence across the life span and with attention to special populations. At completion of this mental health course, students will have completed a minimum of 75 (3750/50) lecture contact hours and 25 (1500/60) clock hours of mental health-related clinical experience.

**PNSG 1635 - Maternal Nursing**

4 Credits

Focuses on maternal and newborn patient care aspects of health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span, and with attention to special populations. Topics include the function of the human body systems, terminology associated with healthcare, health management and maintenance and prevention of illness; care of the individual as a whole; and deviations from the normal state of health in the reproductive system, pathological and nonpathological concerns in obstetric clients, and the newborn; client care, treatment, pharmacology, medication administration, and diet therapy related to the reproductive system, obstetric clients, and the newborn, and standard precautions. After this maternity course, students will have completed a minimum of 1500/50 (30) lecture and lab contact hours and 3000/60 (50) clock hours of reproductive, maternity, and newborn-related clinical experience.

**PNSG 1640 - Pediatric Nursing**

3 Credits

Focuses on health management and maintenance and the prevention of illness, care of the child as a whole, and deviations from the normal state of health. The definition of client 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, care of the child as a whole, and deviations from the normal state of health in the pediatric client; client care, treatments, pharmacology, and diet therapy of the pediatric client; growth and development; functions of the human body, terminology associated with healthcare, and standard precautions. After this pediatric course, students will have completed a minimum of 45 (2250/50) lecture/lab contact hours and 25 (1500/60) clock hours of pediatric-related clinical experience.

**PNSG 1645 - Practical Nursing Capstone**

5 Credits

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 the nursing process, critical thinking, supervisory skills, client education methods, group dynamics, professional oral and written communication, and conflict resolution. At completion of this nursing leadership course, students will have completed a minimum of 54 lecture/lab (2700/50 min) hours and 60 clock (3600/60 min) hours of leadership-related clinical experience.



**PNSG 2010 - Pharm Clinical Calculations****Prerequisite:** ALHS 1011

2 Credits

Applies fundamental mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, fundamental pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education.

**PNSG 2030 - Nursing Fundamentals****Prerequisite:** ALHS 1011

6 Credits

An introduction to the nursing process. Topics include: nursing as a profession; ethics and law; client care which is defined as using the nursing process, using critical thinking, and providing client education and includes principles and skills of nursing practice, documentation, and an introduction to physical assessment; customer/client relationships; standard precautions; basic life support; infection control/blood-borne/airborne pathogens; and basic emergency care/first aid and triage.

**PNSG 2035 - Nursing Fundamentals-Clinical****Prerequisite:** ALHS 1011

2 Credits

An introduction to nursing practice in the clinical setting. Topics include but are not limited to: history taking; physical assessment; nursing process; critical thinking; activities of daily living; documentation; client education; standard precautions; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; and perioperative care.

**PNSG 2210 - Medical Surgical Nursing I****Prerequisite:** ALHS 1011

4 Credits

Focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; immunology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the cardiovascular, respiratory, and hematological and immunological systems.

### **PNSG 2220 - Medical Surgical Nursing II**

**Prerequisite:** PNSG 2010

4 Credits

This second course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the endocrine, gastrointestinal, and urinary system.

### **PNSG 2230 - Medical Surgical Nursing III**

**Prerequisite:** PNSG 2010

4 Credits

This third course in a series of four focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; mental health; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the neurological, sensory, and musculoskeletal systems.

### **PNSG 2240 - Medical Surgical Nursing IV**

**Prerequisite:** PNSG 2010

4 Credits

This fourth course in a series of four courses focuses on client care including using the nursing process, performing assessments, using critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole, oncology; as well as pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to the integumentary and reproductive systems.

### **PNSG 2250 - Maternity Nursing**

**Prerequisite:** PNSG 2220

3 Credits

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 client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and nonpathological concerns in obstetric clients and the newborn; client care, treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.

**PNSG 2255 - Maternity Nrsng Clinical Nrsng I****Prerequisite:** PNSG 2220

1 Credits

At completion of this maternity course, students will have completed a minimum of 37.5 clock hours of maternity related clinical experience. This course focuses on clinical 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 client care includes using the nursing process, performing assessments, using critical thinking, providing client education, displaying cultural competence across the life span and with attention to special populations. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, pathological and non-pathological concerns in obstetric clients and the newborn; client care, treatments, pharmacology, and diet therapy related to obstetric clients and the newborn; and standard precautions.

**PNSG 2310 - Med SurgI Nursing Clinical I****Prerequisite:** ALHS 1011

2 Credits

This first clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four-part sequence of these medical surgical clinical courses students will have completed a minimum of 300 clock hours of clinical experience including 225 clock hours of comprehensive medical-surgical, 37.5 clock hours of pediatric experiences and 37.5 clock hours of mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

**PNSG 2320 - Med Surg Nursing Clinical II****Prerequisite:** PNSG 2010

2 Credits

This second clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four-part sequence of these medical-surgical clinical courses students will have completed a minimum of 300 clock hours of clinical experience including 225 clock hours of comprehensive medical-surgical, 37.5 clock hours of pediatric and 37.5 clock hours of mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition, pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

**PNSG 2330 - Med Surg Nursing Clinical III****Prerequisite:** PNSG 2010

2 Credits

This third clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four-part sequence of these medical-surgical clinical courses students will have completed a minimum of 300 clock hours of clinical experience including 225 clock hours of comprehensive medical-surgical, 37.5 clock hours of pediatric experiences and 37.5 clock hours of mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition, pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

**PNSG 2340 - Med Surg Nursing Clinical IV****Prerequisite:** PNSG 2010

2 Credits

This fourth clinical course, in a series of four medical-surgical clinical courses, focuses on clinical client care including using the nursing process, performing assessments, applying critical thinking, engaging in client education and displaying cultural competence across the life span and with attention to special populations. At the completion of the four-part sequence of these medical-surgical clinical courses students will have completed a minimum of 300 clock hours of clinical experience including 225 clock hours of comprehensive medical-surgical, 37.5 clock hours of pediatric experience and 37.5 clock hours of mental health experiences. Topics include: health management and maintenance; prevention of illness; care of the individual as a whole; hygiene and personal care; mobility and biomechanics; fluid and electrolytes; oxygen care; perioperative care; immunology; mental health; and oncology. In addition, pathological diseases, disorders and deviations from the normal state of health, client care, treatment, pharmacology, nutrition and standard precautions with regard to cardiovascular, hematological, immunological, respiratory, neurological, sensory, musculoskeletal, endocrine, gastrointestinal, urinary, integumentary and reproductive systems.

**PNSG 2410 - Nursing Leadership****Prerequisite:** PNSG 2220

1 Credits

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 the nursing process, supervisory skills, client education methods, group dynamics and conflict resolution.

**PNSG 2415 - Nursing Leadership Clinical I****Prerequisite:** PNSG 2220

2 Credits

At completion of this nursing leadership course, students will have completed a minimum of 75 clock hours of leadership related clinical experience. This course builds on the concepts presented in prior nursing courses and develops the clinical skills necessary for successful performance in the job market, focusing on practical applications. Topics include: application of the nursing process, critical thinking, supervisory skills, client education methods, and group dynamics.

**POLS 1101 - American Government**

3 Credits

Emphasizes study 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. In addition this course will examine the processes of Georgia state government. Topics include foundations of government political behavior and governing institutions.

**PSYC 1010 - Basic Psychology**

3 Credits

Presents basic concepts within the field of psychology and their application to everyday human behavior thinking and emotion. Emphasis is placed on students understanding basic psychological principles and their application within the context of family work and social interactions. Topics include an overview of psychology as a science the nervous and sensory systems learning and memory motivation and emotion intelligence lifespan development personality psychological disorders and their treatment stress and health and social relations.

**PSYC 1101 - Introductory Psychology**

3 Credits

Introduces the major fields of contemporary psychology. Emphasis is on fundamental principles of psychology as a science. Topics include research design the organization and operation of the nervous system sensation and perception learning and memory motivation and emotion thinking and intelligence lifespan development personality psychopathology and interventions stress and health and social psychology.

**PSYC 1150 - Industrial/OrganizationalPsych**

3 Credits

Emphasizes interpersonal and behavioral 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.

**PSYC 2103 - Human Development**

**Prerequisite:** PSYC 1101

3 Credits

Emphasizes changes that occur during the human life cycle beginning with conception and continuing through late adulthood and death and emphasizes the scientific basis of our knowledge of human growth and development and the interactive forces of nature and nurture. Topics include but are not limited to theoretical perspectives and research methods, prenatal development and child birth, stages of development from infancy through late adulthood, and death and dying.

**PSYC 2250 - Abnormal Psychology**

**Prerequisite:** PSYC 1101

3 Credits

Emphasize the etiology and treatments consideration of various forms of abnormal behavior. Topics include historical and contemporary approaches to psychopathology; approaches to clinical assessment and diagnosis; understanding and defining classifications and psychological disorders.

**RART 1100 - Intro to the Music Industry**

**Prerequisite:** MUSC 1101

3 Credits

This course will initially provide a survey of the music industry, highlighting those areas where music and business intersect. The focus will be on developing a foundational understanding of the structure and areas of the music industry. By analyzing how the industry underwent extreme change and what opportunities arouse from the changing landscape in the discovery consumption of music, students will be able to better understand emerging trends in the industry and how to apply them.

**RART 1200 - Intro to Sound Production**

3 Credits

A moderately technical introduction to the science of acoustics and audio systems technology. Covers the nature, measurement and behavior of sound; audio terminology, signal flow, and equipment performance specifics; digital audio, microphone types and usage; and an overview of recording theory.

**RART 1300 - Intro to Audio Recording**

**Prerequisite:** RART 1100

4 Credits

This course will initially provide a survey of the music industry, highlighting those areas where music and business intersect. The focus will be on developing a foundational understanding of the structure and areas of the music industry. By analyzing how the industry underwent extreme change and what opportunities arouse from the changing landscape in the discovery consumption of music, students will be able to better understand emerging trends in the industry and how to apply them.

**RART 1350 - Advanced Audio Recording****Prerequisite:** MUSC 1101

4 Credits

Introduction to the basic techniques and tools used in audio recording. Areas of study include signal path, microphone applications, software, hardware, outboard gear, soldering techniques, tracking, mixing and editing.

**RART 2100 - Digital Sound Eng Movie Making****Prerequisite:** RART 1300

4 Credits

This course is an introduction to new media. It includes sound, video, animation, mp3, DVD, and compression technology. Introduction to music and sound as related to moviemaking. Students will have the opportunity to create and assemble music, sound, and video into a finished product. Introduces the basic techniques and tools used in live sound engineering and mixing. Areas of study include set up, signal path, microphone application, hardware and outboard gear.

**RART 2200 - Podcasting & Altern Audio Prod****Prerequisite:** RART 1200

4 Credits

This course is designed for students who want to learn new media and how to create their own radio show through the use of advanced audio production skills. Once produced, you'll learn marketing and distribution avenues through podcasting and the intranet. Students will explore multi-channel, multi-platform communications in the world of audio production. Students will understand and take part in the creation of promos and imaging, while gaining a grasp of the various effects available in Adobe Audition, including voice processing and compression, EQ, reverb, etc.

**RART 2300 - Live Event Production****Prerequisite:** RART 1300

4 Credits

The student will be introduced to audio concepts and equipment for recording live theater, concerts, recitals and events. They will be taught how to get the best sound on location using microphone types and placement, mixers, recording technologies, and signal processing. Students will learn techniques for streaming audio live or recording event.

**RART 2500 - Television Sound Production****Prerequisite:** RART 1300

4 Credits

The student will be introduced to audio concepts and equipment for recording live theater, concerts, recitals and events. They will be taught how to get the best sound on location using microphone types and placement, mixers, recording technologies, and signal processing. Students will learn techniques for streaming audio live or recording event.

**RBDT 1100 - Introduction to Design**

4 Credits

This course establishes the fundamentals of manual delineation, principals and elements of design, visualization skills, and terminology associated with residential building design and construction. Topics include the importance of scale, shapes, lineweight, balance, ergonomics, projection, multiview projection, color, value, and space. Course introduces students to fundamental thinking skills necessary for a foundation in building design.

**RBDT 1200 - Fundamentals of Architectural Drawing****Prerequisite:** RBDT 1100**Corequisite:** RBDT 1210

4 Credits

This course builds on the fundamentals of design and delineation with the introduction of object-based delineation. Students learn to create detailed technical drawings used to communicate the scope, scale, and quality of the design.

**RBDT 1210 - Applied History of Residential Design****Prerequisite:** RBDT 1100

4 Credits

This course teaches an applied history of residential designs that will explain the how and why of the modern building techniques that are used today. Students will tour residences in the area in order to see a physical visual record of local materials and methods used in various periods of design.

**RBDT 1300 - Residential Composition Design**

4 Credits

This course teaches the mechanics of residential delineation. Spatial relationships through the use of bubble diagrams and site analysis are examined. Students will visit active construction sites in order to build a working knowledge between technical drawings and construction methodology.

**RBDT 1310 - Wood Construction Design****Corequisite:** RBDT 1300

4 Credits

This course will cover the structural aspects of residential wood framing. Students will construct scaled stick-frame models and produce technical documents to gain an understanding of wood construction techniques.

**RBDT 1320 - Sustainable Design****Corequisite:** RBDT 1300

4 Credits

This course will introduce students to green and sustainable technology. It will cover how sustainable design methods used in residential planning can be designed to impact the environment in positive, rather than detrimental ways. Terminology, material selection, and planning methods will be covered.



**RBDT 2100 - Internship****Prerequisites:** RBDT 1300, RBDT 1310

2 Credits

This course provides a practical application of material previously covered in the program. Students will work on a project or job site in order to further develop their skill sets and knowledge bases. Emphasis is placed on production standards, achievement, and quality control.

**RBDT 2110 - Portfolio****Prerequisite:** RBDT 1300

4 Credits

This course will assist students in the preparation of a professional portfolio used to showcase their work to potential clients and/or employers. Course will also cover resume and cover letter preparation, successful job search techniques, and interviewing skills.

**RBDT 2120 - Presentation Techniques****Prerequisite:** RBDT 1300

4 Credits

This course will address many of the skills necessary to present work and communicate effectively within a team. Students will learn additional software used in preparation of professional presentations. Students will learn to effectively present their work in different contexts

**RBDT 2200 - Capstone Project**

4 Credits

Students will participate in a capstone studio project that will showcase the skills they have acquired throughout the course of the program. Final work will be professionally presented to a board of practicing building designers for evaluation.

**RBDT 2210 - HVAC/Plumbing/Electrical Design****Prerequisite:** RBDT 1300

4 Credits

**RELG 1101 - World Religions****Prerequisite:** ENGL 1101

3 Credits

Introduction to World Religions is a survey course of the history, practice, and modern relevance of the world's religious traditions. Through the study of religion and its influence on history and culture, greater insight and understanding of diverse populations can be attained. Topics include an overview of significant religious traditions from around the world, critical analysis of the relationships between religions and artistic traditions, and critical analysis of the influence of religion on culture, politics, and history.

**SCMA 1000 - Introduction to Supply Chain Management**

0 Credits

Provides a general knowledge of Supply Chain Management (SCM) and the associated functions necessary for delivery goods and services to customers. The course will focus on what employees and managers must do to ensure an effective Supply Chain exists in their organization. Topics include: Introduction to SCM, E-Commerce, Material Management, Information Technology, Measuring SCM performance, Purchasing and Distribution, and Research and Case Studies.

**SCMA 1003 - Introduction to Transportation and Logistics Manag**

3 Credits

Businesses today can not be competitive without a good transportation and logistics network. This course introduces the five basic forms of transportation and provides an understanding of the economic fundamentals underlying each mode. Students then discuss ways in which today's supply chain manager can use these transportation modes to achieve efficiencies and cost effectiveness necessary for a company to survive in today's global markets.

**SCMA 1015 - E-Commerce in Supply Chain Management****Corequisite:** SCMA 1000

3 Credits

Provides a general knowledge of E-Commerce (EC) and how it is being conducted and managed as well as assessing its major opportunities, limitations, issues, and risks. The course will focus on the impact EC has on a significant portion of the world, affecting businesses, supply chains, professions, and people. EC is more than just buying and selling, and students will learn it is also about electronically communicating, collaborating, sharing of information by businesses, and discovering information.

**SCMA 2103 - Supply Chain Management Concepts****Prerequisite:** SCMA 1003

3 Credits

Logistics and Supply Chain Management today represents a great challenge as well as a tremendous opportunity for most firms. This course will view the supply chain from the point of view of a front-line supervisor. Logistics and Supply Chain Management is all about managing hand-offs in a supply chain, hand-offs of either information or product. Phrases like logistics management, supply chain management and demand chain management will be used interchangeably in order to provide an understanding on how logistical decisions impact the performance of the firm as well as the entire supply chain.

**SCMA 2106 - Key Issues in the Global Integrated Supply Chain**

3 Credits

This course examines the issues and challenges a corporation faces in designing and implementing a globally integrated supply chain. Topics include social responsibility in the supply chain, geo-political impacts, outsourcing and off shoring of supply chain functions, and how companies manage risk in their supply chains.

**SCMA 2200 - Capstone/Case Studies in Logistics Management**

**Prerequisites:** LOGI 1000, LOGI 1010, LOGI 1020, SCMA 1000, SCMA 1003, SCMA 1015

3 Credits

Capstone course that prepares students for entry level positions in the field of logistics and supply chain management through case studies, project management, and presentations.

**SCMA 2900 - Logistics and Supply Chain Management Internship**

**Prerequisites:** LOGI 1000, LOGI 1010, LOGI 1020, SCMA 1000, SCMA 1003, SCMA 1015

3 Credits

Reinforcement of supply chain management 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 supply chain management through work experience. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, applications of supply chain management techniques, and professional development. The occupation-based instruction is implemented through an internship or the use of a practicum and all of the following: written individualized training plans, written performance evaluation, and a required weekly seminar.

**SOCI 1101 - Introduction to Sociology**

3 Credits

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.

**SPCH 1101 - Public Speaking**

3 Credits

Introduces the student to 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.

**SURG 1010 - Introduction to Surgical Technology**

**Prerequisites:** BIOL 2113, BIOL 2114, BIOL 2117, ENGL 1101, MATH 1101, MATH 1111

8 Credits

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: introduction to preoperative, intraoperative and postoperative principles of surgical technology, professionalism, and health care facility information. (There are surgical procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)

**SURG 1020 - Principles of Surgical Technology****Prerequisites:** BIOL 2113, BIOL 2114, BIOL 2117, ENGL 1101, MATH 1111

9 Credits

Provides continued study of surgical team participation by wound management and co-related skills for the operating room. Topics include: patient care concepts; preoperative, intraoperative and postoperative skills; perioperative case management; and principles of minimally invasive surgical techniques. (There are surgical procedures that are similar as far as procedural steps, instrumentation, supplies, patient position, etc. This is referred to as the "Co-Related Procedures Concept." The purpose of using the Co-Related Procedures Concept is to provide the instructor additional time to teach surgical procedures as well as avoid repetition.)

**SURG 1100 - Surgical Pharmacology****Prerequisite:** SURG 1010

2 Credits

Introduces the concepts of surgical pharmacology and anesthesia. Topics include: terminology; medication calculations and measurements; proper handling of medications and solutions used in surgery; guidelines and regulations for medication safety; and types of anesthesia.

**SURG 2030 - Surgical Procedures I****Prerequisite:** SURG 1010

5 Credits

Introduces the surgical specialties to include General Surgery, Obstetric and Gynecologic Surgery, Genitourinary Surgery, Otorhinolaryngologic Surgery, and Orthopedic Surgery. Topics for each surgical specialty will include Anatomy and Physiology, Pathophysiology, Diagnostic Interventions, specialty supplies, equipment, and instrumentation and the Surgical Procedure. There are similar surgical procedures as far as instrumentation, supplies, patient positioning, and operative sequence. This is referred to as the Co-Related Procedures Concept. The purpose of using the Co-Related Procedures Concept is to allow the instructor time to teach surgical procedures and avoid repetition. As with co-related procedures, the concept of minimally invasive surgery (MIS) as an approach is used and describes any surgical approach other than open. Robotic-assisted and endoscopic procedures are categorized as MIS. Interventional radiology is a medical subspecialty that refers to a range of techniques utilizing radiologic image guidance and minimally invasive procedures to diagnose and treat diseases in several surgical specialties.

**SURG 2040 - Surgical Procedures II****Prerequisite:** SURG 1010

5 Credits

Introduces the surgical specialties to include Oral and Maxillofacial Surgery, Plastic and Reconstructive Surgery, Ophthalmic (Eye) Surgery, Cardiothoracic Surgery, Peripheral Vascular Surgery and Neurosurgery. Topics for each surgical specialty will include Anatomy and Physiology, Pathophysiology, Diagnostic Interventions, specialty supplies, equipment, and instrumentation and the Surgical Procedure. There are similar surgical procedures as far as instrumentation, supplies, patient positioning, and operative sequence. This is referred to as the Co-Related Procedures Concept. The purpose of using the Co-Related Procedures Concept is to allow the instructor time to teach surgical procedures and avoid repetition. As with co-related procedures, the concept of minimally invasive surgery (MIS) as an approach is used and describes any surgical approach other than open. Robotic-assisted and endoscopic procedures are categorized as MIS. Interventional radiology is a medical subspecialty that refers to a range of techniques utilizing radiologic image guidance and minimally invasive procedures to diagnose and treat diseases in several surgical specialties.

**SURG 2110 - Surgical Technology Clinical I**

3 Credits

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care and processing of instruments and supplies. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Surgical specialties include: General, Cardiothoracic, Genitourinary, Neurologic, Obstetric and etc. Case Requirements: A student must complete a minimum of 120 cases as delineated below. A. General Surgery 1. A student must complete a min. of 30 cases in General Surgery. a) 20 of these cases must be performed in the 1st Scrub role. b) The remaining 10 cases may be performed in either the 1st Scrub or 2nd Scrub role. B. Specialty Surgery 1. A student must complete a min. of 90 cases in various surgical specialties, excluding General Surgery. a) A min. of 60 cases must be performed in the 1st Scrub role and distributed amongst a min. of 4 surgical specialties. 1) A min. of 10 cases in 4 different specialties must be completed in the 1st Scrub role (40 cases total). 2) The additional 20 cases in the 1st Scrub role may be distributed amongst any 1 surgical specialty or multiple surgical specialties. b) The remaining 30 cases may be performed in any surgical specialty in either the 1st Scrub or 2nd

**SURG 2120 - Surgical Technology Clinical II**

3 Credits

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care and processing of instruments and supplies. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Surgical specialties include: General, Cardiothoracic, Genitourinary, Neurologic, Obstetric and etc. Case Requirements: A student must complete a minimum of 120 cases as delineated below. A. General Surgery 1. A student must complete a min. of 30 cases in General Surgery. a) 20 of these cases must be performed in the 1st Scrub role. b) The remaining 10 cases may be performed in either the 1st Scrub or 2nd Scrub role. B. Specialty Surgery 1. A student must complete a min. of 90 cases in various surgical specialties, excluding General Surgery. a) A min. of 60 cases must be performed in the 1st Scrub role and distributed amongst a min. of 4 surgical specialties. 1) A min. of 10 cases in 4 different specialties must be completed in the 1st Scrub role (40 cases total). 2) The additional 20 cases in the 1st Scrub role may be distributed amongst any 1 surgical specialty or multiple surgical specialties. b) The remaining 30 cases may be performed in any surgical specialty in either the 1st Scrub or 2nd

**SURG 2130 - Surgical Technology Clinical III**

3 Credits

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care and processing of instruments and supplies. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Surgical specialties include: General, Cardiothoracic, Genitourinary, Neurologic, Obstetric and etc. Case Requirements: A student must complete a minimum of 120 cases as delineated below. A. General Surgery 1. A student must complete a min. of 30 cases in General Surgery. a) 20 of these cases must be performed in the 1st Scrub role. b) The remaining 10 cases may be performed in either the 1st Scrub or 2nd Scrub role. B. Specialty Surgery 1. A student must complete a min. of 90 cases in various surgical specialties, excluding General Surgery. a) A min. of 60 cases must be performed in the 1st Scrub role and distributed amongst a min. of 4 surgical specialties. 1) A min. of 10 cases in 4 different specialties must be completed in the 1st Scrub role (40 cases total). 2) The additional 20 cases in the 1st Scrub role may be distributed amongst any 1 surgical specialty or multiple surgical specialties. b) The remaining 30 cases may be performed in any surgical specialty in either the 1st Scrub or 2nd

**SURG 2140 - Surgical Technology Clinical IV**

3 Credits

Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include, but are not limited to: scrubbing, gowning, gloving, and draping; assistance with patient care and processing of instruments and supplies. In addition, introduces the development of surgical team participation through clinical experience. Emphasis is placed on observation and/or participation in routine procedures for core and specialty surgery. Surgical specialties include: General, Cardiothoracic, Genitourinary, Neurologic, Obstetric and etc. Case Requirements: A student must complete a minimum of 120 cases as delineated below. A. General Surgery 1. A student must complete a min. of 30 cases in General Surgery. a) 20 of these cases must be performed in the 1st Scrub role. b) The remaining 10 cases may be performed in either the 1st Scrub or 2nd Scrub role. B. Specialty Surgery 1. A student must complete a min. of 90 cases in various surgical specialties, excluding General Surgery. a) A min. of 60 cases must be performed in the 1st Scrub role and distributed amongst a min. of 4 surgical specialties. 1) A min. of 10 cases in 4 different specialties must be completed in the 1st Scrub role (40 cases total). 2) The additional 20 cases in the 1st Scrub role may be distributed amongst any 1 surgical specialty or multiple surgical specialties. b) The remaining 30 cases may be performed in any surgical specialty in either the 1st Scrub or 2nd

**SURG 2240 - Seminar in Surgical Technology****Prerequisites:** SURG 1010, SURG 1020

2 Credits

Prepares students for entry into careers as surgical technologists and enables them to effectively prepare and sit for the national certification examination. Topics include: employability skills, management and leadership, and professional preparation.

**TRST 1000 - Transit Industry Fundamentals**

1 Credits

Introduces students to the transit industry. Topics include; Jobs and careers in the transit industry (including rail services, bus services and infrastructure services.), and the transit industry's role in the community.

**TRST 1010 - Transit Bus Engines**

4 Credits

This course introduces students to transit bus engines. Topics include: Engine types, engine block and cylinder head, lubrication systems, cooling systems, air induction and exhaust systems, fuel systems, compressed natural gas storage and handling, and fuel cell technology

**TRST 1020 - Transit Bus Body Systems**

4 Credits

This course introduces students to body systems specific to transit buses. Topics include: wheelchair systems, door and window systems, kneeling and articulation systems, destination signage, windshield wiper systems, fire suppression and gas detection systems, and seating systems.

**TRST 1030 - Mobility Van Body System****Prerequisite:** AUTT 1020

3 Credits

This course introduces students to body systems specific to light and medium duty transit buses and mobility vans. Topics include: wheelchair systems, seating systems, wheelchair restraint systems, door and window systems, proximity alarms, and fire suppression/gas detection systems.

**TRST 1040 - Transit Fiber Optics Controls**

2 Credits

Introduces the fundamentals of fiber optics and explores the applications of fiber optic transmission systems. Laboratory exercises give students hands-on experience with fiber optic devices and test equipment. Topics includes: fundamentals of fiber optics, types of optical fibers, transmitters/receivers, connectors, and use fiber optic meters

**WELD 1000 - Introduction to Welding Technology**

4 Credits

This course 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, Oxyacetylene welding, and Welding career potentials.

**WELD 1010 - Oxyfuel and Plasma Cutting**

4 Credits

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.

**WELD 1030 - Blueprint Read/Welding Tech**

4 Credits

This course introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. An emphasis is placed on identifying types of welds and the associated abbreviations and symbols.

**WELD 1040 - Flat Shielded Metal Arc Weld**

4 Credits

This course introduces the major theory safety practices and techniques required for shielded metal arc welding (SMAW) in flat positions. Qualification tests flat position are used in the evaluation of student progress toward making industrial welds.

**WELD 1050 - Horizon Shielded Metal ArcWeld**

4 Credits

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: horizontal SMAW safety and health practices selection and applications of electrodes selection and applications for horizontal SMAW horizontal SMAW joints and horizontal SMAW to specification.

**WELD 1060 - Vert Shielded Metal Arc Weld**

4 Credits

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.

**WELD 1070 - Overhead Shield Metal Arc Weld**

4 Credits

Introduces the major 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: overhead SMAW safety and health practices selection and applications of electrodes for overhead SMAW overhead SMAW joints and overhead SMAW to specification.

**WELD 1090 - Gas Metal Arc Welding**

4 Credits

Provides knowledge of theory safety practices equipment and techniques required 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; transfer modes; wire selection; shielded gas selection; and GMAW joints in all positions.



**WELD 1110 - Gas Tungsten Arc Welding**

4 Credits

Provides knowledge of theory safety practices inert gas equipment and techniques required 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: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and set up; selection of filler rods; GTAW weld positions; and production of GTAW beads bead patterns and joints.

**WELD 1120 - Preparation/Industrial Qualifi**

4 Credits

Introduces industrial qualification methods procedures and requirements. Students are prepared to meet the qualification criteria of selected national welding codes and standards. Topics include: test methods and procedures national industrial codes and standards fillet and groove weld specimens and preparation for qualifications and job entry.

**WELD 1150 - Adv Gas Tungsten Arc Welding**

3 Credits

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.

**WELD 1151 - Fabrication Processes****Prerequisite:** WELD 1030

3 Credits

Presents practices common in the welding and metal fabrication industry. Topics include: metal fabrication safety and health practices and metal fabrication procedures.

**WELD 1152 - Pipe Welding**

4 Credits

Provides the opportunity to apply skills to pipe welding operations. Topics include: pipe welding safety and health practices pipe welding nomenclature pipe layout and preparation pipe joint assembly horizontal welds on pipe (2G) vertical welds on pipe (5G) and welds on 45 degree angle pipe (6G).

**WELD 1153 - Flux Cored Arc Welding**

4 Credits

Provides knowledge of theory safety practices equipment and techniques required for successful flux cored arc welding (FCAW). Qualification tests all positions are used in the evaluation of student progress toward making industrial standards welds. Topics include: FCAW safety and health practices FCAW theory machine set up and operation shielded gas selection and FCAW joints in all positions.

**WELD 1156 - Ornamental Iron Works**

4 Credits

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.