

2009 2010

CATALOG



CALHOUN
COMMUNITY
COLLEGE

Your Community. Your College. Your Future.



2009-2010 CATALOG

DECATUR CAMPUS
P.O. Box 2216
Decatur, AL 35609-2216
Phone (256) 306-2500

HUNTSVILLE/CUMMINGS RESEARCH PARK CAMPUS
102B Wynn Drive
Huntsville, AL 35805
(256) 890-4747

<http://www.calhoun.edu>

FIRST EDITION

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

Member of
American Association of Community Colleges
Alabama Community College System

It is the intent of the compilers of this catalog that it contain policies, procedures, and guidelines adopted or approved by The State Board of Education of Alabama. Users are cautioned that changes in policies, procedures, and guidelines may have occurred since the publication of this material. In the event of such a conflict, the current statements of Board policy shall prevail.

EQUAL OPPORTUNITY IN EDUCATION AND EMPLOYMENT

Calhoun Community College is committed to equal opportunity in employment and education. The College does not discriminate in any program or activity on the basis of race, color, religion, sex, age, or national origin, or against qualified disabled persons, and it maintains an affirmative action program for protected minorities and women.

NONDISCRIMINATION STATEMENT

Calhoun Community College has filed with the Federal Government an Assurance of Compliance with all requirements imposed by or pursuant to Title VI of the Civil Rights Act of 1964 and the Regulation issued thereunder, to the end that no person in the United States shall, on the basis of race, color or national origin, be excluded from participation in, be denied the benefits thereof, or be otherwise subjected to discrimination under any program or activity sponsored by this institution. It is also the policy of Calhoun to be in accordance that "no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Title IX Coordinator for administrators, faculty, and staff is Ms. Kim Gaines, Office of Human Resources, P.O. Box 2216, Decatur, Alabama 35609-2216; telephone (256) 306-2592. The Title IX Coordinator for students is Dr. Kermit Carter, Dean for Student Affairs, P. O. Box 2216, Decatur, Alabama 35609-2216; telephone (256) 306-2613.

In addition, the College does not discriminate on the basis of disability in its educational programs and activities, pursuant to the requirements of Section 504 of the Rehabilitation Act of 1973, Public Law 93-112, and the Americans with Disabilities Act of 1990 (ADA), Public Law 101-336. This policy extends to employment by and admission to the college. The Section 504 Coordinator for administrators, faculty and staff is Ms. Kim Gaines, Office of Human Resources, P.O. Box 2216, Decatur, AL 35609-2216; telephone (256) 306-2592. The Section 504 Coordinator for students is Dr. Kermit Carter, Dean for Student Affairs, P.O. Box 2216, Decatur, AL 35609-2216; telephone (256) 306-2613 or 890-4700. The Dean for Student Affairs is the ADA Coordinator for the College.

Persons or any specific class of individuals who believe they have been subjected to discrimination prohibited by Titles VI, IX, Section 504, ADA, or an Act or Regulation issued thereunder may, alone or with a representative, file with the United States Commissioner of Education or with this institution, or with both, a written complaint.

Calhoun Community College engages in continual study on our effectiveness. Students may be required to participate in tests/surveys or other activities as part of this process.

Calhoun Community College owns all photographs of students and participants taken at Calhoun events and reserves the right to use these photographs for college promotional materials, both digital and print. Students who do not wish to have their photographs used must have a "Do Not Use Photograph" form completed and on file in the Calhoun Public Relations Office.

Welcome to Calhoun Community College

HISTORY OF CALHOUN COMMUNITY COLLEGE

Calhoun Community College is the result of the consolidation of the Tennessee Valley State Technical School and John C. Calhoun State Technical Junior College. The Tennessee Valley State Technical School was instituted by the Wallace-Patterson Trade School Act of 1947. John C. Calhoun State Technical Junior College was established under the Alabama Trade School Authority Act of 1963. The two schools were merged into a comprehensive institution to become John C. Calhoun State Technical Junior College and Technical School in September 1965. Both the Technical School and the Junior College are under the supervision of the Alabama State Board of Education. The president is directly responsible to the State Board through the Chancellor of the Department of Postsecondary Education. The present designation as a community college was formalized by a State Board of Education resolution of September 23, 1973.

ALABAMA STATE BOARD OF EDUCATION

Governor Bob RileyPresident of the Board, Montgomery
Mr. Randy McKinney (Presiding Officer).....First District, Mobile
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Mr. Bradley Byrne
Chancellor
The Alabama Community College System

WELCOME

Message from the President

Calhoun Community College has a strong and well-known reputation for instructional excellence and workforce training. The College has positioned itself to be a benchmark institution leading the way for innovative technology for both faculty and students, and we are proud of the many accomplishments we have realized throughout the 60 years of our existence.

Calhoun's reputation for academic excellence is well known throughout our service area, the state of Alabama and the nation. It is our goal to provide life-changing opportunities for the citizens we serve, and we are pleased that you have made the decision to become a member of the Calhoun family.



MARILYN C. BECK
President

Vision

Calhoun Community College:
Your Community - Your College - Your Future.

Mission

The Mission of Calhoun Community College is to ensure student success and promote community development and cultural enrichment.

Strategies for Accomplishing the Mission

1. Provide quality, innovative instruction
2. Ensure open access
3. Promote lifelong learning
4. Value diversity
5. Secure partnerships for economic development
6. Provide comprehensive student support services
7. Institutionalize assessment, accountability, and improvement
8. Provide a supportive, responsive environment
9. Ensure opportunities for professional development

Values

- | | |
|-------------|------------------|
| • Integrity | • Accountability |
| • Honesty | • Excellence |
| • Fairness | • Diversity |
| • Service | • Teamwork |
| • Growth | • Creativity |
| • Respect | |

2009-2010 CALENDAR

Fall Semester

Faculty Duty Days – 87
Instructional Days – 79

Professional Development- Duty Day	T	Aug 18
Registration/Duty Day	W	Aug 19
Registration/Duty Day	TH	Aug 20
Duty Day	F	Aug 21
Classes Begin	M	Aug 24
Holiday – Labor Day	M	Sept 7
Holiday – Veterans' Day	W	Nov 11
State Professional Development/Faculty Duty Day	M – T	Nov 23-24
Faculty Duty Day	W	Nov 25
Holiday – Thanksgiving	TH/F	Nov 26-27
Finals	T-M	Dec 15-21
Grading/Grade Reporting/Duty Day	T	Dec 22

	Faculty Duty Days	Instructional Days
Aug.	10	6
Sept.	21	21
Oct.	22	22
Nov.	18	15
Dec.	16	15
Total	87	79

Spring Semester

Faculty Duty Days – 88
Instructional Days – 81

Holiday	F	Jan 1
Professional Development/Duty Day	T	Jan 5
Registration/Duty Day	W	Jan 6
Registration/Duty Day	TH	Jan 7
Duty Day	F	Jan 8
Classes Begin	M	Jan 11
Holiday - King/Lee	M	Jan 18
Spring Break	M – F	Mar 22-26
Classes Resume	M	Mar 29
Final Exams	W-T	May 5-11
Grading/Duty Day	W	May 12
Grade Reporting/Duty Day	TH	May 13
Graduation/Duty Day	F	May 14

	Faculty Duty Days	Instructional Days
Jan.	18	14
Feb.	20	20
Mar.	18	18
Apr.	22	22
May	10	7
Total	88	81

Summer Semester

Faculty Duty Days – 54
Instructional Days – 50

Duty Day	W	May 26
Duty Day/Registration	TH	May 27
Duty Day	F	May 28
Classes Begin	T	June 1
Holiday/Independence Day	M	July 5
Final Exams	TH-T	Aug 5-10
Grade Reporting/Duty Day	W	Aug 11

	Faculty Duty Days	Instructional Days
May	3	0
June	22	22
July	21	21
Aug.	8	7
Total	54	50

Grand Totals

Faculty Duty Days and Instructional Days

Semester	Faculty Duty Days	Instructional Days
Fall	87	79
Spring	88	81
Total	175	160
Summer	54	50
Grand Total	229	209

The College will be closed the following nine holidays:

Monday	September 7, 2009	Labor Day
Wednesday	November 11, 2009	Veterans' Day
Thursday	November 26, 2009	Thanksgiving Day
Friday	November 27, 2009	Day after Thanksgiving
Thursday	December 24, 2009	Christmas Eve
Friday	December 25, 2009	Christmas Day
Friday	January 1, 2010	New Year's Day
Monday	January 18, 2010	Martin Luther King/Robert E. Lee
Monday	May 31, 2010	Memorial Day
Monday	July 5, 2010	Independence Day

In addition, the College will be closed the following days:

Monday	December 28, 2009
Tuesday	December 29, 2009
Wednesday	December 30, 2009
Thursday	December 31, 2009
Thursday	March 25, 2010
Friday	March 26, 2010

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COLLEGE POLICIES AND REGULATIONS

NOTICE OF AVAILABLE ACCOMMODATIONS FOR STUDENTS, EMPLOYEES, AND APPLICANTS WITH DISABILITIES.

Calhoun Community College does not discriminate on the basis of disability in admitting students to, providing access to, or in the operations of its programs, services, or activities, or in its hiring or employment practices.

Questions, concerns, complaints, requests for information, or requests for the provision of reasonable accommodations to persons with disabilities should be directed to Calhoun Community College's ADA Compliance Coordinator, whose name, address, e-mail, and phone number are shown below:

Dr. Kermit Carter
Dean for Student Affairs
Chasteen Student Center, Room 205
P.O. Box 2216
Decatur, Alabama 35609-2216
klc@calhoun.edu
Phone: (256) 306-2613
Fax Number: (256) 306-2948
Office Hours: 7:45 a.m. - 4:15 p.m., Monday-Friday

Students who need auxiliary aids for effective communication in participating in the programs and services of Calhoun Community College should make these needs known to the ADA Compliance Coordinator or designee.

This notice is provided pursuant to the requirements of the Americans with Disabilities Act of 1990. It is also available in larger print, on audio tape, and in braille from the ADA Compliance Coordinator.

SECURITY/POLICE

We take your safety seriously! To ensure the continued health and safety of Calhoun students and employees, we must all consider our own security, as well as the security of others, a priority when on campus. Should a crime occur on campus, Calhoun strongly encourages you to report this crime immediately to the College's Campus Security/Police Department by calling (256) 306-2575. For emergencies only call (256) 306-2911 on the Decatur campus or (256) 890-4711 on the Huntsville campus. The Decatur campus security office is located in the former ACT building, next to Noble Russell. Huntsville Police Department officers are located in the Administrative Office at the Huntsville/Cummings Research Park campus.

Calhoun Community College is proud of its historically safe campus. In an effort to promote awareness and enhance safety, we would like to inform you of our campus crime disclosure report. We hope this information is helpful to you. Should you have any questions or suggestions regarding campus safety, please contact the campus police at 306-2574. If an emergency, call 306-2911.

Calhoun Community College Campus Crime Statistical Disclosure Report

<u>Crime</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Murder	0	0	0
Rape	0	0	0
Sex Offenses:			
Forcible	0	1	0
Non-Forcible	0	0	0
Robbery	0	0	0
Aggravated Assaults	0	3	0
Burglary	0	0	1
Breaking & Entering			
Motor Vehicle	3	2	3
Arrests	0	2	1
Motor Vehicle Thefts	0	0	0
Liquor Law Violations	0	1	1
Drug Violations	0	0	1
Weapons Violations	0	1	0
Criminal Mischief	1	1	2
Thefts	6	13	18
Harassment	5	9	8
Leaving Scene of Accident	5	3	3
Public Intoxication	0	1	1
Property Damage	1	3	2
Trespassing	0	0	1
Disorderly Conduct	0	1	3
Misc. Calls for Service	1,078	1,156	1,213

STUDENT IDENTIFICATION CARDS

All students enrolled at Calhoun Community College are required to have in their possession a valid Student I.D. card for general identification purposes and to present it upon demand when requested by a school official. The Student I.D. card is valid for each semester of the student's attendance. Students I.D. cards are issued during the first two weeks of each semester for new and transferring students. Replacement I.D. cards for returning students can be made at a cost of \$20.00. Replacement cost cannot be charged to student accounts and must be paid in cash. The I.D. card can be used for (1) book buying (campus bookstore only), (2) library book checkout, (3) access to learning labs, (4) entrance into college-sponsored activities, (4) check cashing, (5) library privileges at other designated colleges, and (6) student discounts.

MOTOR VEHICLE REGISTRATION

All students driving any type of motor vehicle on campus must secure and properly affix an official college parking decal to the vehicle regardless of the location of classes. Parking decals are available at the switchboard at the Decatur campus or the Security Office at the Huntsville/Research Park campus. For students who have received disability access license plates or disability access placards for Disability Access Parking Privileges under Alabama law and who wish to use College disability access parking spaces, special disability access parking decals are available from the Campus Police/Security Office upon appropriate documentation by the respective student of having received Disability Access Parking Privileges. In the interest of safeguarding designated disability access parking spaces from misuse by persons who are not properly entitled to use those spaces, the use of disability access parking spaces will be only permitted for those cards that display **both** a College disability access decal **and** either a disability access license plate or a disability access placard.

Violations of traffic regulations pertaining to the registration and operation of motor vehicles can result in a monetary fine, the withholding of semester schedules, the withholding of official transcripts, and/or other appropriate disciplinary action. Each college parking decal will expire on the last day of the summer term of the academic year in which it is issued.

HANDICAP PARKING POLICY

Eligibility to access available handicap parking on campus requires that a student, faculty or staff member show proof that they are the legally registered recipient of the state issued handicap parking placard. A valid Calhoun ID along with a state issued handicap registration form must be presented to the Disabilities Services Office when requesting a campus parking placard. The Calhoun handicap parking placard must be displayed on the dashboard of the eligible vehicle when parked on campus.

ABANDONED VEHICLES

If a vehicle is left unattended or is left in the same place for more than ten (10) days, the vehicle will be considered abandoned and will be towed at the owner's expense. If a vehicle is illegally parked (for example, blocking another vehicle that is legally parked), the illegally-parked vehicle will be towed at the owner's expense.

PARKING/TRAFFIC CITATION APPEALS COMMITTEE

This is a three-member committee made up of students appointed by the Student Government Association. It is charged with the responsibility of hearing and ruling on each case in which a student appeals having received a parking ticket. The committee meets each Friday at 11:00 a.m. in the Student Activities Office, Decatur campus. Parking appeals at the Huntsville/Cummings Research Park campus should be made to the Dean for the Cummings Research Park campus.

RESTROOM POLICY

Restrooms are designated separately for men and women. Any individual caught in the opposite gender's restroom will be subject to disciplinary action and criminal trespassing. There will be no loitering in restrooms on Calhoun's campuses.

WEAPONS POLICY

No person shall keep, use, possess, display, or carry any rifle, shotgun, handgun, knife, bow and arrow, or other lethal or dangerous weapons or devices capable of casting a projectile by air, gas or explosion, or mechanical means on any property or in any building owned or operated by Calhoun Community College or in any vehicle on campus. Realistic facsimiles of weapons are also specifically not allowed.

If an instructor approves such items to be demonstrated for class purposes only, the instructor and student must obtain permission from Calhoun Police.

Any such person seen with or using such weapons on campus will be subject to disciplinary and criminal charges.

Pursuant to state board policy 511.01, Calhoun Community College adheres to the following:

Firearms are prohibited on campus or any other facility operated by the college. Exceptions to this policy are: Law enforcement officers legally authorized to carry such weapons who are officially enrolled in classes or are acting in the performance of their duties or an instructional program in which firearms are required equipment. If the off-duty officer is a student, he/she must notify campus police once a semester. A weapon is prohibited from any type of hearing for personal business.

ADMISSIONS POLICIES

IDENTIFICATION REQUIREMENT FOR ALL APPLICANTS

All applicants/reapplicants must present identification documentation to the Admissions Office in the form of (1) one primary form, such as an unexpired driver's license, unexpired identification card, or unexpired U.S. Passport; or (2) secondary forms, one may be a non-photo

ID such as a social security card or birth certificate, and one must be a picture ID such as a military ID or employee ID. For further information concerning this policy or a list of acceptable forms of documentation, please contact the Admissions Office.

ADMISSION OF FIRST-TIME COLLEGE STUDENTS

Applicants who have not previously attended a postsecondary institution accredited by a regional accrediting agency or the Council on Occupational Education will be classified as first-time college students or "native" students.

ADMISSION TO COURSES CREDITABLE TOWARD AN ASSOCIATE DEGREE

To be eligible for admission to courses creditable toward an associate's degree, a first-time college student must meet one of the following criteria:

1. Applicant holds the Alabama High School Diploma (standard, credit based, or advanced), the high school diploma of another state equivalent to the Alabama High School Diploma, or an equivalent diploma issued by a non-public regionally and/or state accredited high school; or
2. Applicant holds a high school diploma equivalent to the Alabama High School Diploma (standard or advanced) issued by a non-public high school and has passed the Alabama Public High School Graduation Examination; or
3. Applicant holds a high school diploma equivalent to the Alabama High School Diploma* (standard or advanced) and has achieved a minimum ACT composite score of 16 or a total of 790 on the SAT; or
4. Applicant holds the Alabama Occupational Diploma, the high school diploma of another state equivalent to the Alabama Occupational Diploma, or an equivalent diploma issued by a non-public high school, and has achieved a minimum ACT composite score of 16 or a total of 790 on the SAT; or
5. Applicant holds a GED Certificate issued by the appropriate state agency.

*Minimum credit requirements for an Alabama standard diploma

- Minimum of 24 credits to include:

English Language	4 credits	
Mathematics	4 credits to include:	
	Algebra	1 credit
	Geometry	1 credit
Science	4 credits to include:	
	Biology	1 credit
	Physical Science	1 credit
Social Sciences	4 credits to include:	
	Social Studies	1 credit
	World History	1 credit
	U.S. History	1 credit
	Government	.5 credits
	Economics	.5 credits

Physical Education, Health Education
and/or Fine Arts 2 credits

Computer Applications .5 credits
(may be imbedded)

Electives 5.5 credits

General Information

Applicants who meet one of these criteria shall be classified as "Degree-Eligible" students. Calhoun Community College may establish additional admission requirements to specific courses or occupational degree programs when student enrollment must be limited.

ADMISSION TO COURSES NOT CREDITABLE TOWARD AN ASSOCIATE DEGREE

Applicants to courses not creditable toward an associate degree and programs comprised exclusively of courses not creditable toward an associate's degree may be admitted provided they meet the standard admission criteria. Limestone Correctional Facility programs may have different admission requirements based on program eligibility.

Calhoun Community College has established higher or additional admission requirements for specific programs or services when student enrollment must be limited or to assure ability to benefit.

UNCONDITIONAL ADMISSION OF FIRST-TIME COLLEGE STUDENTS

For Unconditional Admission, applicants must have on file at the college a completed application for admission and at least one of the following:

1. An official transcript showing graduation with the Alabama High School Diploma (standard or advanced), the high school diploma of another state equivalent to the Alabama High School Diploma, or an equivalent diploma issued by a non-public regionally and/or state accredited high school; or
2. An official transcript showing graduation from high school with a high school diploma equivalent to the Alabama Public High School Diploma issued by a non-public high school and proof of passage of the Alabama Public High School Graduation Examination; or
3. An official transcript showing graduation from high school with a high school diploma equivalent to the Alabama High School Diploma issued by a non-public high school and evidence of a minimum ACT composite score of 16 or a total score of 790 on the SAT; or (See Admission to Courses Creditable . . . minimum requirements)
4. An official transcript showing graduation from high school with the Alabama Occupational Diploma, the high school diploma of another state equivalent to the Alabama Occupational Diploma, or an equivalent diploma issued by a non-public high school, and has achieved a minimum ACT composite score of 16 or a total score of 790 on the SAT; or
5. An official GED Certificate.

All male students between the ages of 18 and 26 must show proof of registration with the U.S. Selective Service System in accordance with §36-26-15.1 of the Code of Alabama of 1974 (as amended).

CONDITIONAL ADMISSION OF FIRST-TIME COLLEGE STUDENTS

Provided the applicant meets the admission standards for a first-time college student, a conditional admission may be granted to an applicant who does not have on file at the college at least one of the items listed under "Unconditional Admission of First-Time College Students" above.

No student shall be allowed to enroll for a second term unless all required admission records have been received by the college prior to registration for the second term. It is the student's responsibility to contact the appropriate high school and/or agencies and have the official required documents mailed directly to Calhoun Community College.

If all required admission records have not been received by the col-

lege prior to issuance of first semester grades, the grades will be reported on the transcript, but the transcript will read CONTINUED ENROLLMENT DENIED PENDING RECEIPT OF ADMISSION RECORDS. This notation will be removed only upon receipt of all required admission records.

ADMISSION OF TRANSFER STUDENTS

An applicant who has previously attended another postsecondary institution which is accredited by a regional accrediting agency or by The Council on Occupational Education will be considered a transfer student and will be required to furnish official transcripts of all work attempted at all said institutions. Calhoun Community College may require submission of documents required of first-time college students to verify completion of a high school diploma, a GED, and the required ACT or SAT test scores.

A transfer student who meets requirements for admission to degree creditable courses and programs shall be classified as "degree-eligible." A transfer student who does not meet the admission requirements will not be granted admission to Calhoun Community College.

Applicants who have been suspended from another institution for academic or disciplinary reasons will not be considered for admission except upon written appeal to the College Admissions Committee. Written appeals, along with official or unofficial college transcripts, must be submitted at least thirty days before the term of intended enrollment.

UNCONDITIONAL ADMISSION OF TRANSFER STUDENTS

1. For Unconditional Admission, transfer students must have submitted to the college an application for admission, official transcripts from all required sources, and any other documents required for admission.
2. Transfer students who attend another postsecondary institution and who desire to earn credits for transfer to that parent institution may be admitted to the college as **transient** students. The student must submit an application for admission and a transient letter from the institution they have been attending which certifies that the credits they earn will be accepted as a part of their academic program. Students are not required to submit transcripts since the transient approval letter will serve in lieu of transcripts.
3. Applicants who have completed the baccalaureate degree will be required to submit only the transcript from the institution granting the baccalaureate degree. NOTE: If the student intends to obtain a degree or certificate from Calhoun Community College, transcripts from all institutions must be submitted for evaluation prior to graduation. If the student intends to register for courses requiring prerequisites that have been fulfilled at another institution, transcripts from those institutions must be submitted for evaluation prior to enrolling in those courses at Calhoun Community College.

CONDITIONAL ADMISSION OF TRANSFER STUDENTS

1. Transfer students who do not have on file official transcripts from all postsecondary institutions attended and any additional required documents may be granted a Conditional Admission for one term. No transfer student shall be allowed to enroll for a second semester unless all required admission records have been received by the College prior to registration for the second semester.
2. If all required admission documents are not received by the end

of the first term, continued enrollment will be denied. Grades for the first term will be posted to a transcript and annotated to read **CONTINUED ENROLLMENT DENIED PENDING RECEIPT OF ADMISSION RECORDS**. This notation will be removed only upon receipt and review of all required admission records.

INITIAL ACADEMIC STATUS OF TRANSFER STUDENTS

1. An initial academic status cannot officially be determined until all official documents are received and reviewed. Once records are received, an initial status will be determined for the student's first term of enrollment. Submission of incorrect or false information on the application for admission could result in immediate removal from the college and forfeiture of all tuition, fees, and other monies.
2. A transfer student whose cumulative grade point average at the transfer institutions is 2.0 or above on a 4.0 scale will be admitted with Clear academic status.
3. A transfer student whose cumulative grade point average at the transfer institution is less than a 2.0 on a 4.0 scale but is not on academic suspension/dismissal will be admitted on Academic Probation. The Calhoun transcript will be annotated to read **ADMITTED ON ACADEMIC PROBATION**.
4. A transfer student applicant who has been academically suspended (dismissed) from another regionally or Council on Occupational Education accredited postsecondary institution may be admitted only after following the appeal process established for "native" students. Calhoun Community College requires that the applicant submit a written appeal to the College Admissions Committee along with all official transcripts. Written appeals, an application, and transcripts must be received by the Admissions Committee, prior to the first official class day. No appeals will be considered on or after the first official class day for that term. If the transfer student is admitted upon appeal, the student will enter the college on Academic Probation. The Calhoun transcript will read **ADMITTED UPON APPEAL – ACADEMIC PROBATION**.
5. A transfer student admitted on academic probation retains that status until the student has attempted 12 credit hours at Calhoun Community College. If the student's cumulative GPA at Calhoun is below a 1.5 after the semester in which 12 or more credit hours are attempted, the student will be placed on academic suspension for at least one semester. More stringent guidelines may be placed on students by the College Admissions Committee when written appeals are approved.

GENERAL PRINCIPLES FOR TRANSFER OF CREDIT

1. Transfer credit will be evaluated and recorded by the end of a student's first term of enrollment. Transfer credit evaluations will only be conducted when all official transcripts have been received. Students will be notified in writing of the results of their evaluation. (A review of records by counselors, advisors, faculty, etc. for advising purposes does not constitute an official evaluation.)
2. Coursework transferred or accepted for credit toward an undergraduate program must represent collegiate coursework relevant to the formal award with course content and level of instruction resulting in student competencies at least equivalent to those of students enrolled in the institution's own undergraduate formal award programs. A course completed at other regionally or Council on Occupational Education accredited postsecondary institutions with a passing grade (C minimum required in Composition courses) will be accepted for transfer as potentially creditable toward graduation requirements.

3. A transfer student from a collegiate institution not accredited by the appropriate regional association or Council on Occupational Education may request an evaluation of transfer credits after completing 15 semester hours with a cumulative GPA of 2.0 or above.
4. A transfer grade of "D" will only be accepted when the transfer student's cumulative transfer GPA is 2.0 or above. Regardless of the GPA, a "D" in English Composition courses will be not accepted in transfer. Please note that some programs/courses require minimum grades of "C", thus a "D" will not transfer.
5. Transfer course grades are not calculated into a student's grade point average. Transfer grades are only calculated into a grade point average for graduation and honors consideration.
6. Credit may be extended based on a comprehensive evaluation of demonstrated and documented competencies and previous formal training. Please refer to the section on Credit from Nontraditional Sources in this catalog.
7. The criteria for awarding credit for work completed in foreign colleges and universities will be the same as for other institutions within the United States. Students wishing to receive transfer credit for such foreign study must provide an English translation and a detailed report from an acceptable foreign credentials evaluation firm. Such a report must outline recommendations for awarding specific credit for specific courses. Currently, most of these reports are "course-by-course" evaluations provided by Educational Credential Evaluators, Inc., P.O. Box 17499, Milwaukee, WI 53217. There are other companies which provide the same service. For further information, contact the International Student Advisor.

INTERNATIONAL STUDENTS—(F-1 VISA HOLDERS)

Calhoun Community College accepts international students who have F-1 visas and who meet the academic, linguistic, and financial requirements outlined below:

First Time College Students

- An international student who holds an American high school diploma or a diploma from his/her country that is equivalent may be eligible for admission.
 - Prospective international students must submit all of the following to be considered for admission.
 - 1) A complete application in English.
 - 2) Official transcripts/leaving certificate in English that document graduating from a secondary school that is equivalent to a U.S. high school diploma. The transcript/leaving certificate must be forwarded directly to Calhoun Community College from all institutions previously attended. Translation of all documents is the responsibility of the applicant.
 - 3) Test of English as a Foreign Language (TOEFL) requirements:
 - a. A minimum written score of 500 (or)
 - b. A minimum computer-based score of 173 (or)
 - c. Internet based score 61 (or)
 - d. IELTS ranging 5.5-6.0
 - e. The scores must be mailed directly from the Educational Testing Services to the Office of Admissions and Records. Personal copies are **not accepted**.
 - f. The TOEFL Test is not administered at Calhoun Community College.
- EXCEPTIONS (TOEFL)**
- a. a graduate of an accredited U.S. high school or an

Information is available through local high school counselors.

For additional or more specific information contact your high school counselor or the Calhoun Community College *Dual Enrollment Coordinator*, Ms. Gwen Baker at (256) 306-2665.

EARLY COLLEGE ENROLLMENT PROGRAM (ECEP)

The Early College Enrollment Program (ECEP) allows qualified high school juniors and seniors with a stated interest in vocational/technical fields to enter a technical or community college early. Students must have a minimum of a 2.5 grade point average on a 4.0 scale in required high school courses and must have passed the high school exit exam.

ECEP participants earn credits applicable toward high school graduation and college degree requirements at no cost to the student. Participation in the ECEP does not affect a student's eligibility to participate in high school extracurricular activities. Any public community and/or technical college and public high school in Alabama may provide the ECEP option for secondary students.

Students are not restricted to attending the two-year college(s) where service area(s) includes their high school. Participation in the ECEP is at the discretion of the local education agency (LEA) and ECEP enrollment is limited to courses that are not available within the system at the local high school or career tech center or for students who are classified as program concentrators (must have completed two courses within a pathway). Students selected to participate in ECEP complete their remaining high school credits on the college campus, while also taking courses in their chosen vocational/technical field.

The cost of tuition shall be a maximum of \$1,000 per student per semester and shall be the responsibility of the Local Education Agency. There is not cost for tuition to the ECEP students. Contingent upon the availability of postsecondary funding each year, there is not cost for tuition to the ECEP student or the LEA. If funds are not available to provide tuition vouchers, the cost of tuition shall be a maximum of \$1,000 per student per semester and shall be the responsibility of the LEA.

For additional or more specific information contact your high school counselor or the Calhoun Community College Dual Enrollment Coordinator, Ms. Gwen Baker, at (256) 306-2665.

AUDIT STUDENTS

Auditors are students who register for credit courses on a non-credit basis. The College may require complete academic records for any applicant. In the absence of complete academic records, the College may accept as the basis of admission the information provided by the applicant on the regular application form. Auditors will under **no** circumstances receive credits applicable to degree requirements. Students will not receive punitive grades, but they may be assigned a W for absences or removal from class. Tuition and fees for courses audited are the same as those for courses taken for credit. Students may not change from "Credit" to "Audit" or "Audit" to "Credit" after the Drop/Add period.

APPLICATION PROCEDURES

Students Entering College for the First Time

1. Applicants must complete an application for admission and sub-

mit it to the Admissions Office at Calhoun Community College. Applicants should submit their application as early as possible prior to the semester in which they plan to enroll. Applications may be submitted online at <http://www.calhoun.edu/applyonline/index.htm> or mailed to the address listed below:

Admissions Office
Calhoun Community College
P.O. Box 2216
Decatur, AL 35609-2216

2. Applicants must request that the high school from which they graduated mail their official transcript directly to the Admissions Office at the address listed above. Test scores, if applicable, must also be forwarded directly to Admissions.
3. Applicants who hold a GED must have an official GED transcript sent directly to the Admissions Office at the address noted above.

Transfer Students

1. Transfer applicants must complete an application for admission and submit it online, in person, or by mail to the Admissions Office, Calhoun Community College. The application should be submitted as early as possible prior to the semester of intended enrollment. Applications may be mailed to the address listed below:

Admissions Office
Calhoun Community College
P.O. Box 2216
Decatur, AL 35609-2216

2. All transfer applicants must have official transcripts from all other colleges or universities forwarded directly to Calhoun's Admissions Office at the address noted above. It is the student's responsibility to request his/her official records be forwarded in a prompt and complete manner to clear his/her admission to Calhoun Community College. Transcripts from high school, ACT/SAT test scores or a GED certificate are also required from students who attended a non-regionally accredited college or university.

Former Students Applying for Readmission

1. Applicants who previously applied for admission but did not attend are required to submit a new application for admission and provide all required admission records.
2. Students who have not been in attendance for one semester, excluding summer, will be required to complete a readmission application. If the student has been in attendance at another college or university since his/her last enrollment with Calhoun, official transcripts must be requested and forwarded directly to the Admissions Office, Calhoun Community College.

SENIOR CITIZENS ATTENDING UNDER THE SENIOR ADULT SCHOLARSHIP PROGRAM

Senior citizens sixty (60) years of age or older may be eligible for a tuition waiver if they qualify for the Senior Adults Scholarship Program. Applicants must meet the following conditions:

1. They must comply with the college admission standards as noted earlier in this catalog under Admission, First-Time Students, Admission of Transfer Students or Former Students

General Information

Applying for Readmission. Please refer to the appropriate section for details of admission requirements.

2. Must be Alabama residents.
3. Must be sixty (60) years of age or older.
4. Students must enroll for credit; non-credit enrollment is not allowed.

The student is responsible for any fees or other charges applied to the general student body. Senior citizens granted a tuition waiver under the Senior Adult Scholarship Program may receive the tuition waiver only one time per course. Any time a senior citizen repeats a course the student is responsible not only for fees but also for tuition.

Questions regarding admission and eligibility should be directed to the staff of the Admissions and Records Office or the Financial Aid Office.

NOTE: Senior citizen course enrollment under the Senior Adult Scholarship Program is restricted to a space available basis. A course will not be expanded beyond the optimal number to accommodate the enrollment of a senior citizen attending under the Senior Adult Scholarship Program.

COLLEGE ADMISSIONS COMMITTEE

Students on academic suspension must file a written appeal directly to the Associate Dean of Enrollment Management/Registrar for submission to the College Admissions Committee. Appeals for admission should be submitted at least thirty days prior to the intended term of enrollment. Decisions of the Admissions Committee are final.

STUDENT RECORDS AND TRANSCRIPTS

Family Educational Rights and Privacy Act of 1974

Calhoun Community College complies with the provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974 as amended. FERPA sets forth the requirements pertaining to the privacy of student records. The law governs the release of educational records and access to the records.

Student Records and FERPA

Students are notified that when a student attains the age of 18 or is attending an institution of postsecondary education, the permission or consent required of and the rights accorded to the parents of the student shall thereafter only be required of and accorded to the student. Therefore, a person other than the student requesting information on a student must submit written authorization from the student if the request is beyond the scope of authorized exceptions to the Act.

Responsibility for protection of the privacy of educational records rests primarily with the Associate Dean of Enrollment Management/Registrar of the college. FERPA defines educational records to include records, files, documents, and other materials that contain information directly related to students and are maintained by an educational agency or institution with exceptions under the Act.

Notification of Rights under FERPA

FERPA affords students certain rights with respect to their educational records. The rights provided to students are:

1. The right to review their educational records with certain exceptions. Students and former students may present a valid photo

identification card and request to review their records. The college may delay a record review up to 45 days if circumstances so dictate. Record reviews are conducted in the Records Office, Chasteen Student Center, Decatur campus. Note: The College is not required to provide access to records of applicants for admission who are denied acceptance or, if accepted, do not attend.

2. The right to request the amendment of the student's educational records that the student believes is inaccurate or misleading. The student should submit to the Associate Dean of Enrollment Management and Registrar a written statement which identifies the part of the record they want changed, why it should be changed, and any documentation to support the request. The student will be notified in writing of the decision to amend or not to amend. A student will be notified of a hearing procedure process they may initiate if the result of the student's request is not to amend their record.
3. The right to consent to disclosure of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure.

Calhoun Community College considers the following to be directory information and may be released to individuals and/or agencies, institutions, etc. unless the student signs a Do Not Release form.

Directory Information

Name
Address
Telephone listing
Date and place of birth
Major field of study
Dates of attendance
Enrollment status
Class standing
Degrees, honors, and awards received
Most recent educational agency or institution attended

It should be noted that directory information is used to verify a student's enrollment with insurance agencies, banks, employers, etc. unless prohibited in writing by the Do Not Release Information form. Calhoun does not provide mailing lists unless required to do so by federal legislation (Solomon Amendment), a court directive, or as deemed appropriate by the President of the college or his/her agent.

FERPA has established rules that allow some personnel and agencies to have access to student's records without their written consent. The exception to the requirement of written consent follows:

- Authorized representatives of the following for audit and evaluation of federal and/or state supported programs or for enforcement of a compliance with federal legal requirements which relate to these programs:
 - Comptroller General of the United States
 - Attorney General of the United States
 - Secretary of the Department of Education
 - State and local educational authorities
 - State and local officials to whom disclosure is specifically required by state statute adopted prior to November 19, 1974.
 - Veterans Administration officials
 - Other school officials with the institution determined by the institution to have a legitimate educational interest
 - Officials of other institutions at which the student seeks or intends to enroll, provided the institution makes a reasonable attempt to inform the student of the disclosure, unless

the student initiates the transfer or the annual notification of the institution includes a notice that the institution forwards education records to other institutions at which the student seeks or intends to enroll have requested the records. (Students are so notified.)

- Persons or organizations providing financial aid to students or determining financial aid decisions on the condition that the information is necessary to: 1) determine eligibility for aid, 2) determine the amount of aid, 3) determine the conditions for the aid, or 4) enforce the terms and conditions of the aid.
- Organizations conducting studies for or on behalf of education agencies or institutions to develop, validate, and administer predictive tests, to administer student aid programs, or to improve instruction. Conditioned on organizations not to disclose personally identifiable information on students, information must be destroyed when no longer needed for project.
- Accrediting organizations carrying out their accreditation functions.
- Parents of a student who have established a student's status as a dependent according to IRS Code of 1986, Section 152.
- Persons in compliance with a judicial order or lawfully issued subpoena provided that the institution makes a reasonable attempt to notify the student in advance of compliance. An institution may not provide advance notice of subpoena compliance if the subpoena is issued by a federal grand jury or for law enforcement purposes provided the subpoena orders the institution not to disclose the existence or contents of the subpoena.
- An institution is not required to obtain a subpoena to produce education records of a student if the institution is sued by the student or takes legal action against a student. The records produced must be needed by the institution to proceed with legal action as plaintiff or to defend itself.
- Persons in an emergency if the knowledge of information, in fact, is necessary to protect the health or safety of students or other persons.
- Additional instances may occur where the college is required by law to release information. Contact the Registrar for the answers to specific questions.

In the event a student believes that his/her FERPA rights were not met, they have the right to file a written complaint with The Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue SE, Washington, DC 20202-4605.

Transcript Policy

The transcript policy of Calhoun Community College includes the following items:

- In compliance with the Family Educational Rights and Privacy Act, Calhoun Community College does not release transcripts of a student's work, except upon the student's request;
- Official transcripts are sent to institutions, companies, agencies, etc., upon the student's release;
- Transcript requests are processed as they are received. REQUESTS SHOULD BE MADE AT LEAST TWO WEEKS BEFORE THE TRANSCRIPTS ARE NEEDED;
- Transcripts will not be issued for persons who have financial, academic, or administrative obligations to

the college;

- Written transcript requests should be sent to:
Calhoun Community College
Admissions and Records Office, Transcripts
P.O. Box 2216
Decatur, AL 35609-2216

Include name, signature, dates of attendance, social security number and address to which transcript should be forwarded. (NOTE: Students with name changes should include all former names.)

Transcripts can be requested at <https://www.calhoun.edu/forms/Calhountranscript.html>.

- A signed fax request containing the same information as noted in item E may be faxed to 256-306-2941.
- The Office of Admissions and Records does not release official transcripts from other institutions. Requests for official transcripts from other institutions must be directed to the institution concerned.

FINANCIAL INFORMATION

BUSINESS OFFICE HOURS (Decatur Campus)

Monday-Thursday	8:00 a.m. – 7:00 p.m.
Friday	8:00 a.m. - 3:00 p.m.

BUSINESS OFFICE HOURS (Huntsville Campus) Room 105 890-4726

Monday-Thursday	9:00 a.m. – 5:45 p.m.
Friday	9:00 a.m. - 12:30 p.m.

TUITION AND FEES

The following information reflects the current tuition and fee schedule enacted by the Alabama State Board of Education.

TUITION

In-State Students	\$ 71.00 per credit hour
Out-of-State	\$142.00 per credit hour
Distance Learning	\$ 95.00 per credit hour*
Distance Learning Out-of-State	\$190.00 per credit hour*

FEES

Technology Fee	\$9.00 per credit hour
Facility Renewal Fee	\$9.00 per credit hour
Special Building Fee	\$5.00 per credit hour
Bond Surety Fee	\$1.00 per credit hour

*No fees apply to Distance Learning classes

Students who register after classes begin will be charged a \$25 late registration fee.

NOTE: Tuition and fees are subject to change without prior notice.

PAYMENTS

Calhoun Community College accepts Mastercard, Visa, and Discover

General Information

for payment of tuition and fees. Students can pay for classes on the Internet by accessing www.calhoun.edu, logging into Web Advisor, and going to the Students menu and selecting the Make a Payment option under the Financial Information section.

TUITION AND FEES REFUND POLICY

Before Classes Begin100% Refund

During Drop/Add

Drops a class or classes but less than total...100% of net

Drops **ALL** classes during drop/add75% of net

After Drop/Add (Withdrawal Refund Period)

Drops a class or classes but less than total.....No refund

Total withdrawal during first week of classes75% of net

Total withdrawal during second week of classes50% of net

Total withdrawal during third week of classes25% of net

Total withdrawal after third week of classes.....No refund

NET AMOUNT IS TUITION AND FEES LESS 5% ADMINISTRATIVE FEE.

Cash payments will be refunded by check. Check and credit card payments will be refunded in the same manner as the original method of payment. Refund checks will be mailed from the Business Office to the student at the address on file with the Admissions Office. Approximately three weeks are required for processing.

ADDITIONAL FEES (SUBJECT TO CHANGE WITHOUT NOTICE)

Additional charges by the institution and not mentioned above include the following:

1. Returned check fee (by Alabama law) \$25*
2. Parking traffic citations (variable, depending on type of citation; check student handbook)
3. Library fines for overdue books (variable, depending on length of overdue status)
4. Audit fees (auditing a course costs the same as taking the course for credit)

*Negotiating a worthless negotiable instrument is a Class A misdemeanor. Pursuant to Alabama law (Act No. 80-200, S. 317), a person will be given 10 days to tender payment of the full amount of such instrument plus a service charge of not more than \$25. Unless this amount is paid in full within the specified time, the individual may assume that this instrument will be turned over to the proper authorities for criminal prosecution.

GENERAL EDUCATION DEVELOPMENT (GED) TEST FEE

Those desiring to take the General Education Test at Calhoun Community College will be required to pay a \$30 fee. Call (256) 306-2648 or 306-2610 for more information.

RESIDENCY/OUT-OF-STATE AND INTERNATIONAL STUDENTS

Guidelines for determining "In-State" Tuition Rates

I. ELIGIBLE FOR "IN-STATE" TUITION

A student or prospective student described in either part A or part B below may be eligible for "In-State" tuition rates. Non-resident students described in Part B must submit a written appeal with documentation to the Tuition Eligibility Committee to obtain "in-state" tuition rates. The Tuition Eligibility Committee will determine whether or not a student meets the criteria. The Committee's decision is final. All written appeals should be forwarded with documentation directly to the Registrar at Calhoun Community College.

Resident Student

A Resident Student shall be charged the in-state tuition rate established by the State Board of Education.

A Resident Student is an applicant for admission who is a citizen of the United States or a duly registered resident in the State of Alabama for at least 12 months immediately preceding application for admission, or whose non-estranged spouse has resided and had habitation, home, and permanent abode in the State of Alabama for at least 12 months immediately preceding application for admission. **Consequently, an out-of-state student cannot attain Resident Student status simply by attending school for twelve months in the State of Alabama.**

In the case of minor dependents seeking admission, the parents, parent, or legal guardian of such minor dependent must have resided in the State of Alabama for at least 12 months immediately preceding application for admission. If the parents are divorced, residence will be determined by the residency of the parent to whom the court has granted custody.

MINOR: An individual who because of age lacks the capacity to contract under Alabama law. Under current law, this means a single individual under 19 years of age and a married individual under 18 years of age, but excludes an individual whose disabilities of non-age have been removed by a court of competent jurisdiction for a reason other than establishing a legal residence in Alabama. If current law changes, this definition shall change accordingly.

SUPPORTING PERSON: Either or both of the parents of the student, if the parents are living together or if the parents are divorced or living separately, then either the parent having legal custody or, if different, the parent providing the greater amount of financial support. If both parents are deceased or if neither has legal custody, support person shall mean, in the following order: the legal custodian of the student, the guardian, and the conservator.

In determining Resident Student status for the purpose of charging tuition, the burden of proof lies with the applicant for admission.

- A. Students participating in the Southern Regional Electronic Campus (or any successor organization) shall be considered Resident Students for tuition purposes.

- B. An individual claiming to be a resident shall certify by a signed statement each of the following:
 1. A specific address or location within the State of Alabama as his or her residence.
 2. An intention to remain at this address indefinitely.
 3. Possession of more substantial connections with the State of Alabama than with any other state.
- C. Though certification of an address and in intent to remain in the state indefinitely shall be prerequisites to establishing status as a resident, ultimate determination of that status shall be made by the institution by evaluating the presence or absence of connections with the State of Alabama. This evaluation shall include the consideration of all of the following connections:
 1. Consideration of the location of high school graduation.
 2. Payment of Alabama state income taxes as a resident.
 3. Ownership of a residence or other real property in the state and payment of state ad valorem taxes on the residence or property.
 4. Full-time employment in the state.
 5. Residence in the state of a spouse, parents, or children.
 6. Previous periods of residency in the state continuing for one year or more.
 7. Voter registration and voting in the state; more significantly, continuing voter registration in the state that initially occurred at least one year prior to the initial registration of the student in Alabama at a public institution of higher education.
 8. Possession of state or local licenses to do business or practice a profession in the state.
 9. Ownership of personal property in the state, payment of state taxes on the property, and possession of state license plates.
 10. Continuous physical presence in the state for a purpose other than attending school, except for temporary absences for travel, military service, and temporary employment.
 11. Membership in religious, professional, business, civic, or social organizations in the state.
 12. Maintenance in the state of checking and savings accounts, safe deposit boxes, or investment accounts.
 13. In-state address shown on selective service registration, driver's license, automobile title registration, hunting and fishing licenses, insurance policies, stock and bond registrations, last will and testament, annuities, or retirement plans.

Students determined to be eligible for resident tuition will maintain that eligibility upon re-enrollment within one full academic year of their most previous enrollment unless there is evidence that the student subsequently has abandoned resident status, for example, registering to vote in another state. Students failing to re-enroll within one full academic year must establish eligibility upon re-enrollment.

Non-Resident Student (additional persons for resident tuition)

A Non-Resident Student, one who does not meet the standard of having resided in the State of Alabama for at least 12 months immediately preceding application for admission, shall be charged the in-state tuition rate established by the State Board of Education under the following circumstances provided such student is a citizen of the United States.

The dependent student

- a. whose supporting person is a full-time permanent employee of the institution at which the student is registering; or
- b. whose supporting person can verify full-time permanent employment in Alabama and will commence said employment within 90 days of registration; or
- c. whose supporting person is a member of the United States military on full-time active duty stationed in Alabama under orders for duties other than attending school; or
- d. whose supporting person is an accredited member of a consular staff assigned to duties in Alabama.

The student is not a dependent (as defined by Internal Revenue Codes) who

- a. is a full-time permanent employee of the institution at which the student is registering or is the spouse of such an employee; or
- b. can verify full-time permanent employment within the State of Alabama or is the spouse of such an employee and will commence said employment within 90 days of registration with the institution; or
- c. is a member of or the spouse of a member of the United States military on full-time active duty stationed in Alabama under orders for duties other than attending school; or
- d. is an accredited member of or the spouse of an accredited member of a consular staff assigned to duties in Alabama.

In determining Non-Resident Student status for the purpose of charging tuition, the burden of proof lies with the applicant for admission. The college may request proof that the applicant meets the stipulations noted above prior to admission.

Students who reside in Bedford, Franklin, Marshall, Maury, Moore, Lawrence, Lincoln, Wayne, or Giles counties in Tennessee will be accessed tuition at the "in-state" rate upon submission of documentation verifying residency.

II. OUT OF STATE STUDENT

Any applicant for admission who does not fall into one of the categories noted above shall be charged a minimum tuition of two times the resident tuition rate charged by that institution. All international students are accessed at the out-of-state rate and are not eligible for in-state rates.

Students initially classified as ineligible for resident tuition will retain that classification for tuition purposes until they provide documentation that they have qualified for resident tuition.

FINANCIAL AID

Financial aid is available at Calhoun Community College in a variety of forms. Students needing assistance with college expenses should communicate with personnel in the Office of Student Financial Services at the following address:

Office of Student Financial Services
Calhoun Community College
P.O. Box 2216
Decatur, AL 35609-2216

FINANCIAL AID PROGRAMS AVAILABLE at Calhoun Community College include the following:

1. Alabama Student Assistance Grants (ASAG)
2. Federal Work-Study (FWS)
3. Pell Grants
4. Academic Competitiveness Grant (ACG)
5. Stafford Loan (SL)
6. Dorothy B. Johnson Loan Fund
7. Federal Supplemental Educational Opportunity Grants (FSEOG)
8. Veterans', Servicemembers', and their Dependents' Benefits
9. Workforce Investment Act (WIA)
10. Scholarships
 - a. Academic
 - b. Calhoun Foundation
 - c. Performing Arts
 - d. Senior Adult Program
 - e. Student Activity and Leadership
 - f. Scholarships for Disadvantaged Nursing Students (SDS)

WHO MAY APPLY FOR FEDERAL FINANCIAL AID PROGRAMS?

Federal Student Financial Aid Programs are Pell Grants, Stafford Loan (SL), Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Work-Study (FWS), Alabama Student Assistance Grants (ASAG), and Workforce Investment Act (WIA).

To qualify for financial aid from one of these five programs, one must:

- demonstrate financial need, except for some loan programs;
- have a high school diploma or a GED certificate, or pass an independently administered test approved by the U. S. Department of Education;
- be enrolled as a regular, degree seeking student working toward a AA, AS, AAS or certificate in an eligible program;
- be a U.S. citizen or eligible non-citizen;
- maintain satisfactory academic progress according to the institutional policy;
- not be in default on a Direct Stafford Loan or Federal Family Education Loan (FFEL); and
- not owe a repayment on any federal financial aid program.

NO EXCEPTIONS WILL BE MADE TO THE ABOVE REGULATIONS.

TRANSIENT STUDENTS

Students from other colleges and universities enrolling only for a few courses and/or during the summer are not eligible to receive Title IV funds.

FEDERAL FINANCIAL AID APPLICATION PROCEDURES

Expenses for tuition, books, supplies, at-home maintenance, transportation, and miscellaneous personal costs are used in preparing an annual budget to help determine the applicant's financial need. Therefore, those who qualify must apply for financial aid each year.

Students who qualify may apply for financial aid at any time. However, processing time is generally four to six weeks; therefore, begin the application process as early as possible. All financial aid application forms and instructions are available in the Office of Student Financial Services as well as the capability to process electronically via www.fafsa.ed.gov.

Priority in making awards for FSEOG and Federal Work-Study shall be given to students completing the application process prior to April 1 each year. Awards for applications submitted after the deadline will be based on availability of funds.

Dependent/Independent Policy

The Federal Government has identified for student financial assistance programs certain categories of students who must be considered independent financial aid applicants. As a result, a student is considered an independent financial aid applicant if he or she meets one of the following criteria.

- Student was born before January 1, 1985
- Student is a veteran or ward of the court or was a ward of the court until age of 18.
- Student has a child who receives more than half support from student.
- Student has a dependent (other than child or spouse) that lives with and will receive more than half support from student through June 30, of the academic year.
- Student is a married student.
- Student is a graduate or professional student.

An independent financial aid applicant is not required to submit parental information in the application process. However, if the independent applicant is married, spousal information must be reported. A student who cannot meet at least one of the above criteria is considered a dependent applicant and must provide parental information in the application process.

STUDENT RESPONSIBILITIES

- Review and consider all information about Calhoun's programs before you enroll.
- Pay special attention to your application for student financial aid, complete it accurately and submit it on time to the right place. Errors can delay receiving your financial aid. Intentional misreporting of information on application forms for Federal financial aid is a violation of the law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
- Provide all additional documentation, verification, corrections and/or new information requested by either the Office of Student Financial Services or the processing center where you submitted your application.
- Read and understand all forms that you are asked to sign, and keep copies of them.
- Accept responsibility for all agreements you sign.
- Perform, in a satisfactory manner, the work that is agreed upon in a Federal Work-Study job.
- Know and comply with the deadlines for application or reapplication for aid.

- Understand the school's refund policy.
- Maintain satisfactory academic progress for continued financial aid eligibility.
- Notify the Office of Student Financial Services if you are planning to attend another institution.
- Pay any tuition, fees or other expenses not paid by financial aid or scholarships by the deadlines.

REFUND POLICY

The Student Financial Aid (SFA) refund requirements only apply when the student fails to register for the period of enrollment for which he or she was charged. A refund is defined as the difference between the amount paid towards institutional charges (including financial aid and/or cash paid) and the amount the school can retain under the institutional refund policy.

The institution must calculate a refund using all possible refund policies in accordance with state and federal laws and regulations.

REPAYMENT POLICIES

Recalculation Policy

A change in a student's original enrollment status may result in a recalculation of Title IV benefits. Payment will be based on the student's enrollment status on the first day of the semester. For students who totally withdraw, the institution will use the appropriate refund policy.

FWS funds are **not** considered in the refund process.

Repayment Policy

The SFA repayment requirement **does not** apply to a student who withdraws from some classes, but continues to be enrolled in other classes.

A **repayment** is the unearned amount of direct disbursement to a student, which the student must pay back. If the institution determines that the student received Title IV funds in excess of the cost to attend school that he or she could have reasonably incurred while still enrolled, then a portion of the Title IV funds was not earned and must be repaid by the student to the SFA programs.

Federal Work Study (FWS) and Student Loan (SL) funds are **excluded** in the repayment policy.

Cash, money order, and cashiers check are the only methods of payment accepted for repayments.

SATISFACTORY ACADEMIC PROGRESS (SAP)

Federal regulations require Calhoun Community College (CCC) to establish Standards of Satisfactory Academic Progress for student financial aid recipients. These regulations require that your entire CCC record be reviewed for satisfactory academic progress, including terms for which you did or did not receive financial aid.

CCC Standards of Satisfactory Academic Progress measure a student's performance in the following three areas: completion rate, cumulative grade point average (GPA), and maximum time frame. The Office of Student Financial Services is responsible for ensuring that all students who receive federal and state aid are meeting these

standards. The Standards of Satisfactory Academic Progress apply for all Title IV financial assistance programs including Federal Pell Grant, Federal Work-Study (FWS), Federal Supplemental Education Opportunity Grant (FSEOG), Federal Family Education Loans (Stafford and PLUS), as well as assistance from the state.

In addition, students who completely withdraw are subject to the CCC Return of Title IV Funds Policy. This federal policy requires Title IV financial aid recipients who completely withdraw from classes prior to completing 60% of any given term to repay a portion of any grants and loans received to the Title IV financial aid programs.

Completion Rate

Each semester, a student's academic progress will be reviewed by comparing the number of attempted credit hours with the credit hours earned. This includes any course for which the student has remained enrolled past the Drop/Add period. The academic records of all students are reviewed based on: (1) the number of semester credit hours attempted and percentage of credit hours completed; (2) cumulative grade point average (GPA); and (3) maximum time frame allowed for completing the degree requirements.

The following are considered when evaluating a student's satisfactory academic progress:

- Withdrawals (W, WP and WF), incompletes (I and IP) and failures (F) are considered attempted but not earned hours.
- Repeated courses and courses for which the student has been granted academic bankruptcy are included in the calculation of both attempted and earned hours. A student is allowed to repeat a course only twice.
- Audited courses are not considered credits attempted or earned. Students can not use Title IV funds to pay for audited courses.
- Transfer credits do not count in the calculation of the GPA, but they are included in the calculation of both attempted and earned hours.

Financial aid recipients must maintain the following cumulative GPA's in order to meet the satisfactory academic progress requirements:

Measure of Progress

Hours Attempted	% of Hours to be completed	Cumulative GPA
12 – 21	58%	1.50
22 – 32	62%	1.75
33 – 66	66%	2.00
67 and above	75%	2.00

Maximum Time Frame

A student's eligibility for financial aid will be terminated at the point where 96 credit hours have been attempted for an associate degree, and when 150 percent of the total hours required, as stated in the College catalog, have been attempted for a certificate. All attempted hours are counted, including transfer hours, whether or not financial aid was received or the course was successfully completed. A maximum of 20 semester credit hours of remedial courses will be excluded from the 96 semester credit hour determination. Title IV funds will only pay for 20 credit hours of remedial courses.

Academic Progress Evaluation

A financial aid recipient's satisfactory academic progress is evaluated each semester. At that time, a student will either be in good standing, be placed on financial aid probation, or denied financial assistance for

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future enrollment periods. The student must meet all three progress requirements (completion rate, GPA, and be within the maximum time frame) to remain in good standing. Students will be notified by the Student Financial Services Office if they are placed on denial status for financial aid.

Probation

Students not meeting the SAP requirements will be placed on financial aid probation. Probation status will not prevent the student from receiving financial aid. The probationary period is meant to inform the student of potential academic problems and provide time for corrective action. Students will be placed on financial aid probation for failing to meet satisfactory academic progress requirements. Students not meeting the requirements below during the probationary period will be denied financial aid. Denial status will prevent the student from receiving any Title IV and/or state financial assistance for future enrollment until such time as the student meets all satisfactory academic progress standards.

Students on financial aid probation must earn grades of 'C' or better in each class, with no withdrawals (grades of W, WP, WF, I and IP calculate as hours attempted in Financial Aid SAP Policy).

Appeal and Reinstatement

Students may appeal their denial status by submitting an Appeal Form to the Financial Aid Appeals Committee. Appeal Forms may be picked up in the Student Financial Services Office or on the CCC web site.

To appeal the financial aid denial, a student must, within 15 calendar days of notification, submit to the Student Financial Services office a signed Appeal Form explaining why he or she should not be suspended. A student may appeal due to mitigating circumstances (medical problems, illness, or death in the family, or employment changes). Documentation verifying the situation may be requested. The Financial Aid Appeals Committee will consider the appeal and render a decision, which the Director of Student Financial Services will convey in writing to the student.

Decisions made by the Financial Aid Committee are final.

INFORMATION ON SPECIFIC FINANCIAL AID PROGRAMS

1. **ALABAMA STUDENT ASSISTANCE GRANT**
The Alabama State Grant Program provides additional assistance to undergraduates who demonstrate exceptional financial need. Students who receive Pell Grants with the lowest family contribution figure (FC) are eligible. The Alabama State Grant is not a loan; therefore, the funds do not have to be paid back.
2. **FEDERAL WORK-STUDY**
The College Work-Study Program provides employment for Calhoun students who need financial assistance. Students work part-time for the college while attending classes.
3. **DOROTHY B. JOHNSON LOAN FUND**
This fund is available to students with an immediate cash flow problem and may be used to cover the cost of tuition and books. It may be repaid from grant or individual accounts within the semester borrowed.

4. **PELL GRANT**
The Pell Grant Program provides financial assistance for students who qualify for funds in order to attend a postsecondary educational institution. The grant may not exceed an amount equal to 50% of the student's educational and related expenses. A Pell Grant is not a loan; therefore, the funds do not have to be paid back.
5. **ACADEMIC COMPETITIVENESS GRANT (ACG)**
The Academic Competitiveness Grant is for undergraduates receiving Pell Grants who are U.S. citizens enrolled full-time in their first or second academic year of study. For first or second academic year students who have completed a rigorous secondary school program of study. Grant does not have to be repaid.
6. **FEDERAL PLUS LOAN PROGRAM**
The Federal PLUS Loan Program provides loans to parents of eligible dependent students who need additional financial assistance in meeting postsecondary educational expenses. Eligibility is not based on income. This program is intended to supplement the Federal Stafford Loan Program.

A parent may receive an amount not to exceed the student's estimated cost of attendance minus any financial aid the student has been or will be awarded during the period of enrollment. There are no aggregate limits.

Interest Rates: Federal PLUS Loans have an interest rate of 8.5 percent for which the first disbursement is made on or after July 1, 2007.

7. **STAFFORD LOAN**
The Stafford Loan (SL) program is a loan program where a student may borrow funds to cover his/her educational expenses. Students may borrow either a subsidized or unsubsidized loan.

A **subsidized** loan is awarded on the basis of financial need. You will not be charged any interest before you begin repayment or during authorized periods of deferment. The federal government "subsidizes" the interest during these periods.

An **unsubsidized** loan is not awarded on the basis of need. You'll be charged interest from the time the loan is disbursed until it is paid in full. If you allow the interest to accumulate, it will be capitalized; that is, the interest will be added to the principal amount of your loan and additional interest will be based upon the higher amount. This will increase the amount you have to repay. If you choose to pay the interest as it accumulates, you'll repay less in the long run.

- a. If you are a first-time borrower, your first payment will not be disbursed until 30 days after the first day of classes.
- b. Loan Entrancing Counseling is mandatory for all first-time borrowers.

- c. Students placed on financial aid probation are not eligible for the student loan program(s).
8. **FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT**
The FSEOG Program provides additional assistance to undergraduates who demonstrate exceptional financial need. Students who receive Pell Grants are eligible. The Supplemental Educational Opportunity Grant is not a loan; therefore, the funds do not have to be repaid.
9. **VETERANS, SERVICEMEMBERS, AND THEIR DEPENDENTS' BENEFITS**
The Veterans Affairs Office is located in Room 101R at the Huntsville/Research Park Campus. Qualified students may also submit paperwork through the Financial Aid Office in the Chasteen Student Center on the Calhoun campus. Appointments for Decatur area students may be arranged at the main campus if the veteran has questions and concerns or may call (256) 306-2500 or 890-4718. The VA Office is the certifying authority for veterans, active duty service members, reservists and National Guard, and dependents that qualify for the federal program. The VA Office serves as the link between the Regional Veterans Affairs Office and the VA benefit recipient who is enrolled at Calhoun Community College.

Calhoun Community College does **not** participate in the VA Advanced Pay Program. Veteran students (except Chapter 31- Rehabilitation and Employment) are required to pay all tuition and fees. After certification has been sent to the Regional Office, the education benefits will be sent directly to the veteran.

Office Hours

Huntsville/Research
Park Campus

Monday through Thursday
8:30 a.m. – 6:00 p.m.
Friday
9:00 a.m. - 4:15 p.m.

Decatur Campus
Financial Aid

Monday through Thursday
7:45 a.m. – 6:00 p.m.
Friday
7:45 a.m. – 4:15 p.m.

FAX (256) 306-2948

To apply for the **Alabama G.I. Dependents' Scholarship Program**, please follow the procedure listed below:

- (1) Apply for certificate at your local county Veterans Affairs Office.
- (2) When student receives certificate from the Alabama Department of Veterans Affairs in Montgomery, Alabama, contact Debbie Ott, Business Office, Calhoun Community College at (256) 306-2541 or 890-4700 or 1-800-626-3628.

Courses under Course Number 100 will not be approved for students under this program. Benefits include tuition, technology fee and books only. Facility

fees must be paid by the student each semester.

10. **WORKFORCE INVESTMENT ACT (WIA)** is a federally funded program to provide training assistance to dislocated individuals. Students may qualify for tuition assistance, book allowances and tool assistance. Interested dislocated workers should apply at their local Alabama State Employment Service.
11. **SCHOLARSHIPS AND GRANTS-IN-AID**
- a. **ACADEMIC SCHOLARSHIPS**
March 1st is the date on which applications for academic scholarships are due. Scholarship applications are available online at Calhoun's website at www.calhoun.edu. Each application is reviewed by the Calhoun Scholarship Committee, and each award is based upon academic achievement.
 - b. **CALHOUN FOUNDATION SCHOLARSHIPS**
The Calhoun Community College Foundation provides tuition scholarships based upon a variety of qualifying criteria. Recipients must have at least a "B" average for high school grades and/or maintain the average for courses taken at Calhoun. Scholarships are renewable for four semesters unless otherwise specified in the scholarship guidelines.
 - c. **FINE ARTS SCHOLARSHIPS**
Fine Arts Scholarships are available for students in art, graphic design, photography, voice, instruments, drama, and music industry. Additional information is available from a faculty member in the Fine Arts Department.
 - d. **SENIOR ADULT PROGRAM SCHOLARSHIPS**
This program provides tuition free admission for those who are 60 years of age and older. Students must enroll for credit courses and meet college and program of study admission standards. The award is based upon space availability in each course. Fees and other costs, other than tuition, are paid by the senior adult student.
 - e. **STUDENT ACTIVITY AND LEADERSHIP SCHOLARSHIPS**

These scholarships are received by:

1. President, Vice-President, and Secretary/Treasurer of the Student Government Association;
2. Editor and assistant editor or photographer of the college literary magazine, *The Muse*;
3. Members of the College's official student ambassadors, the Warkhawks; and
4. President of Phi Theta Kappa.

If a student leaves the position for which the scholarship was awarded, the scholarship may be passed to a successor. In addition, the student leaving the leadership position will reimburse the college a prorated amount of the tuition scholarship based upon the amount of time remaining in the college term.

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- f. Scholarships for Disadvantaged Nursing Students are awarded through a grant funded by the U.S. Department of Health and Human Services. These scholarships are awarded to full-time, financially needy students from disadvantaged backgrounds enrolled in the Associate Degree Nursing (ADN) Program. For purposes of SDS eligibility, full-time status is based on a combination of traditional contact hours and clinical hours in the Associate Degree Nursing Program.

Disadvantaged backgrounds as defined by HRSA (Health Resources and Services Administration) include: (a) comes from an environment that has inhibited the individual from obtaining the knowledge, skill, and abilities required to enroll in and graduate from a school (environmentally disadvantaged); or (b) comes from a family with an annual income below a level which is based on low-income thresholds according to family size published by the U.S. Bureau of the Census, adjusted annually for changes in the Consumer Price Index, and adjusted by the Secretary of Health and Human Services (HHS) for adaptation to this program (economically disadvantaged).

For more information, contact Angela Watkins at 256-306-2802.

PLEASE NOTE: LPN students do not qualify for SDS Scholarships.

Additional financial aid information can be obtained from the Office of Student Financial Services.

BOOKSTORE

The College Bookstore is an auxiliary service owned and operated by Follett. The purpose of the Bookstore is to provide the college community with the widest possible selection of goods and services of high quality at equitable prices, with particular attention paid to academic requirements. For your convenience, we are located at Decatur and Huntsville/Research Park.

BUSINESS HOURS

DECATUR CAMPUS

Monday-Thursday

7:45 a.m.-6:00 p.m.

Friday

7:45 a.m.-3:30 p.m.

Special Hours

First week of class, special hours will be posted. Hours may vary when classes are not in session.

HUNTSVILLE/RESEARCH PARK

Monday-Thursday

9:30 a.m. - 6:00 p.m.

Friday

9:30 a.m. - 12:30 p.m.

(Bookstore hours are subject to change without notice.)

Hours may vary when classes are not in session.

METHOD OF PAYMENT

Payment may be made by either cash, personal check or credit card. The following policy governs payment by check:

1. Checks are accepted for the amount of purchase only.
2. Checks must be made payable to the Calhoun College Bookstore.
3. Phone number, student number or driver's license number and address must be recorded on face of check.

REFUND POLICY

Refunds will be granted up to seven (7) days after the first day of class with receipt. After the first week of classes, customers will have two days with receipt. There will be no refunds during the week of finals.

BOOK BUY BACK POLICY

Textbooks may be sold to the Bookstore any day that the bookstore is open. General buyback policy is as follows:

1. You must present a photo ID.
2. All titles will be considered for buyback regardless of where you purchased them. Price will be determined by market demand and may be purchased for as much as 50% of original purchase price.
3. Normal markings and underlining expected; however, books with excessive markings, water stains, broken bindings, loose pages, heavily soiled, etc. will not be purchased.

SECURITY/POLICE

The office of the Director of Calhoun Police is located in building #6 across from the Machine Tool building on the Decatur campus.

The campus police at the Huntsville/Cummings Research Park location can be contacted in the Administrative office at that location. Officers are available whenever classes are in session. Calhoun police have the responsibility for the following:

1. Assisting students
2. Enforcing traffic and parking regulations and state laws
3. Providing for parking and traffic flow for special events (Students, faculty, and staff must notify security when special events are scheduled on campus)
4. Issuing decals
5. Maintaining building security
6. Responding to any emergency situation

Phone: (256) 306-2575, Decatur
(256) 890-4741, Huntsville
Emergency: (256) Phone: 306-2911

NOTE: In case of a medical emergency, security will, at the individual's expense, call an ambulance for transporting to a nearby emergency room for treatment.

INSTRUCTIONAL INFORMATION AND REGULATIONS

CLASSIFICATION OF STUDENTS

University Parallel

Students who plan to enroll for coursework which will transfer to a four-year institution are considered to be university parallel students. Enrollment may be for a minimum of one term or through completion of a two-year degree. Students should meet with an academic advisor to discuss programs of study and transfer requirements.

Transient

Students who have previously attended another college and who will be enrolled for only one semester and then return to the college of original enrollment are considered to be transient students. Students must submit an official letter from the parent institution they have been attending which specifies the course(s) to be taken and certifies that the credits earned will be accepted by transfer.

Career, Technical and Occupational

Students follow one of the career, technical, or occupational programs which lead to a certificate or degree.

Course Load

Students are classified according to the course load based on the credit hours for which they are enrolled on a semester basis.

Credit Hour Loads	Credit Hours
Full-Time	12 or more
Half Time	6-8

NOTE: To be eligible for financial assistance a student typically must be enrolled for at least 6 credit hours.

Drop-and-Add Period

The drop and add period for fall and spring will be the first three days of each semester and the first two days of each summer semester. If a course meets once per week, the period will extend to the beginning of the second official class meeting day/evening. No grade will be assigned if a course is dropped during the drop/add period. See the section of this catalog on refund policy for refund information.

Withdrawals

A student who wishes to withdraw from a course(s) after the drop/add period may do so by having a withdrawal/drop form completed by Admissions/Records personnel or their designated representatives. A student may withdraw from a course(s) after drop/add period through the last class day of the term.

A withdrawal may also be initiated by a faculty member when a student exceeds the college/class attendance policy. The grade of W for withdrawal will be assigned for the course.

Grades

The following letter symbols are used to indicate the student's level of achievement in courses taken:

- A - Excellent (90-100)**
- B - Good (80-89)**

- C - Average (70-79)**
- D - Poor (60-69)**
- F - Failure (Below 60)**

- S - Successful**
- U - Unsuccessful**

- AU - Audit**
- I - Incomplete**
- IP - In Progress**
- W - Withdrawal**

NOTE: Some programs and/or courses may require a higher numeric range than the standard noted above.

A, B, C, are letter grades which represent levels of accomplishment sufficient to allow students to progress satisfactorily toward graduation and/or prerequisite requirements.

D is a letter grade which indicates minimum level accomplishment. Some courses/programs require a minimum of a "C" grade to progress to the next course or to remain eligible for continuation in a program of study.

F is the letter grade assigned to students who fail to meet minimum course requirements.

W is the letter grade assigned when a student withdraws from a course/courses after the official drop/add period through the last class day of a term. . Students must notify the Office of the Registrar of their intent to withdraw from a course, courses, or programs.

I as a letter grade indicates incompleteness of course requirements; thus an "I" is not a satisfactory completion and will not allow a student to progress to the next course level. An "I" is awarded only under extenuating circumstances. An "I" typically is used to signify that an instructor has granted permission to a student to complete work or that the Dean or designee has approved the student take his/her final examination late. Other circumstances as approved by the instructor and/or Dean or designee may be granted. The student must be aware that he is **not** to sign up for the course again, but to see the instructor **promptly** and complete the course requirements.

Regardless of the circumstances, a grade of I must be changed by the end of the following term or it will be converted to an F.

IP as a letter grade indicates IN PROGRESS and may only be assigned to developmental credit courses, practicums, and internships. The awarding of an IP is the option of the instructor, provided the student has been in regular attendance and has demonstrated conscientious effort yet has not achieved course mastery. Students who receive an IP must repeat the course; it is not satisfactory completion. An IP may be used only once for a class.

S – successful, for developmental, co-op, practicums, and training for Business and Industry.

U – Unsuccessful, for developmental, co-op, practicums, and training for Business and Industry.

Grade Points

A student's academic standing or Grade Point Average (GPA) is a

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means to evaluate the overall quality of work being done. In order to perform this measure, the following grade points are assigned.

A	4	grade points per hour
B	3	grade points per hour
C	2	grade points per hour
D	1	grade point per hour
F	0	grade points per hour
S	0	grade points per hour
U	0	grade points per hour

The student's grade point average is obtained by dividing the total grade points earned by the total number of semester hours for which the grades of A, B, C, D, F, or WF are assigned. Marks of W, WP, I, IP, and AU do not affect the grade point average. A student must have a total overall grade point average of 2.0 (C) on all courses used for graduation in order to be eligible for graduation from Calhoun. (Developmental courses will not apply to the graduation audit).

Grade Appeal Procedure

Student grade appeals may be expected to occur in a large and complex institution. The prevailing philosophy of the institution is that such appeals be handled informally if possible. Only after full and comprehensive attempts have been made by students and faculty to resolve grade appeals have failed should a formal procedure be initiated. It is self-evident that an appeal should be resolved as close to the beginning of the institution's organizational chart as possible; it is further self-evident that grade appeals be handled informally through discussion if at all possible.

There is no appeal procedure if six months of calendar time have elapsed; therefore, the grade appeal procedure must be initiated by the student within six months from the time the grade is received. There are two procedures for appealing a final grade. The first applies if the appeal is within the first eight weeks of the semester immediately following the one for which the grade was received. The second final grade appeal procedure applies if the appeal is after the first eight weeks of the succeeding term. (The summer term may be excluded.)

- A. Procedure for appealing a final grade during the first eight weeks of the following semester:

A student may appeal the final grade received for a course by following the procedures outlined here. Grades received during the academic term for performance, tests, or other activities are private and confidential material between the student and the instructor and are not intended to be covered by the procedures. Daily grades may be considered only as evidence in the formal part of the appeal process, viewed solely on the basis of "a need to know," and handled in such manner so as to continue confidentiality.

1. The student should consult with the instructor promptly after receiving a final grade which he or she feels is unwarranted. If the appeal is not satisfied at this level, the Dean of the Division should meet with either or both in an informal attempt to reach closure. The burden of proof in the grade appeal lies with the student. If the appeal is resolved at this point, a "memorandum of record" should be prepared by the Dean of the Division and be maintained on file. The memorandum will serve as the institution's record

that the disagreement was resolved informally.

2. If closure is not reached by using the informal approach, the student may file a formal grade appeal with the appropriate Dean of the Division. This writing must be dated and filed with the appropriate person prior to the midpoint of the succeeding semester. (The summer term is excluded from the definition of "succeeding semester" except in cases when the instructor who assigned the grade is teaching during the summer term.) The formal grade appeal must state the reasons for the request, include the dates involved, name the instructor who assigned the grade, and include the previous attempts at resolving the situation informally. The burden of proof in the grade appeal lies with the student.
3. Prompted by the Dean of the Division, the divisional grade appeal committee is limited to two calendar weeks from the date of the appeal to convene, gather evidence, and conduct a hearing. Appropriate evidence in support of the appeal must be provided by the student. However, the committee may request the student's materials from the instructor in cases where the instructor possesses the evidence. Grade and attendance records may be requested of the instructor. However, neither tangential issues nor individual personalities will be considered by the committee. To maintain the confidentiality of the hearing, only committee members, the instructor, and the student may be present at the proceedings.

Each division shall maintain a divisional grade appeal committee. Divisions may elect members or members may be appointed by the Dean of the Division. The divisional grade appeal committee should contain no fewer than three full-time faculty members. Members should rotate off the committee on a yearly basis. If a committee member is unable to serve due to involvement in the specific case being heard, the division chair will appoint a substitute for that particular case. The chairperson of the Divisional Grade Appeal Committee will be elected by the membership and will have the following duties: arrange times and places for the committee meetings and hearings; inform in writing all parties of the committee's activities; ensure that proper records are prepared, maintained, and safeguarded; and chair all meetings and hearings.

The Chair of the committee shall ensure that hearings are reasonable and fair; that only matters properly before the committee are discussed; that meetings and hearings are conducted in a professional atmosphere; and that every attempt is made to protect the integrity of the parties involved.

Committee members must be present at all hearings in order to vote following deliberations. (If, in the committee's opinion, special experience or expertise is necessary for sufficient information to be available or if the appeal is of such sensitivity that the committee should not hear the appeal, the Chairperson shall so advise the Vice President for Instruction and Student Services or designee. The Dean will then

appoint a special appeals committee of institution-wide membership to hear the specific case.)

4. Following the conclusion of the hearing, the committee will deliberate privately as appropriate and prepare a written recommendation for the Vice President of Instruction and Student Services or designee to be submitted not later than seven calendar days after the date of the hearing. Their recommendation will be either to retain the grade or to alter it. If the recommendation is to alter, the specific grade after alteration will be indicated. The recommendation should include a brief summary of the facts of the hearing and the reasons for the committee's decision. The deliberations and recommendation of the committee are confidential. The committee may meet with the Vice President of Instruction and Student Services or designee at the Vice President's discretion to discuss actions, deliberations, and recommendations.
5. The Vice President of Instruction and Student Services or designee will provide a statement of the decision to the student within one calendar week following the committee's recommendation. Copies of the statement of decision will be provided to the appeal committee, the Division Chairperson, and the faculty member involved. The decision of the Vice President of Instruction and Student Services or designee is final. (CCC)

- B. Procedure for appealing a final grade after the first eight weeks of the following semester:

Within six months from the time the student received the grade being appealed, the student must initiate the process with the instructor of the course for which the grade was received. This appeal process is strictly informal in nature and must remain a discussion between the student and the instructor of the course. The instructor's decision is final. There is no appeal procedure for final grades if six months of calendar time has elapsed.

Course Forgiveness Policy

Courses undertaken at Calhoun may be repeated at Calhoun. The last grade earned excluding W, WP, and AU will be the grade used for graduation audits. Courses may not be repeated at another institution and used as a component of Calhoun's Course Forgiveness Policy.

1. If a student repeats a course once, the second grade (excluding grades of W, WP, IP or AU) replaces the first grade in his/her cumulative grade point average if the student files a written request with the Admissions and Records Office.
2. When a course is repeated more than once, all grades for the course, excluding the first grade, will be employed in computation of the cumulative grade point average provided the student has requested course repeat as noted in item 1.
3. Transcripts will list all courses and the grades earned. A repeat symbol, 'R,' may denote a course repeat. Zero credit hours can also indicate a course repeat. A transfer institution may choose to average all coursework regardless of Calhoun's institutional policy.
4. A student must request, by submission of the appropriate form, that the Registrar implement the "Course

Forgiveness" policy after a course has been repeated.

Auditing a Course

Instructions for auditing a course at Calhoun are as follows:

- A. A student who desires to audit a course must be admitted to the College;
- B. The student's intent to audit a course must be made by the end of the registration period and may not be changed thereafter. The Registrar will designate the student's audit status on the class roll;
- C. The student who audits a course will complete the same assignments as students who register for credit. In addition, the instructor may require the student who audits to take examinations. Nursing students who audit a course do not attend extended clinical labs.
- D. The cost of auditing a course is the same as for taking a course for credit.

ACADEMIC PROGRAM CHANGING

Request for a change of academic program should be submitted in writing to the Office of Admissions and Records.

Students should be aware of the possible consequences resulting from a change of academic program — transferability of courses completed, new requirements for graduation, job potential, limit on total number of courses for financial aid eligibility, etc. Students should confer with an advisor prior to initiating a change of academic program.

Students affected by VA regulations should consult Veterans Services staff in the Financial Aid Office prior to initiating a change of major.

ACADEMIC BANKRUPTCY

- A. A student may request in writing to the Registrar a declaration of academic bankruptcy under the following conditions for coursework attempted with Calhoun:
 1. If fewer than three (3) calendar years have elapsed since the semester for which the student wishes to declare bankruptcy, he/she may declare academic bankruptcy on all coursework taken during that one semester provided the student has completed a minimum of 18 semester hours of coursework at Calhoun since that semester. All coursework taken during the semester for which academic bankruptcy is declared, including hours completed satisfactorily, will be disregarded in the cumulative grade point average.
 2. If three (3) or more calendar years have elapsed since the most recent semester for which the student wishes to declare bankruptcy, the student may declare academic bankruptcy on all coursework satisfactorily completed during 1-3 semesters/terms provided the student has completed a minimum of 18 semester hours of coursework at Calhoun since the bankruptcy semester occurred. All coursework taken, during semester(s) for which academic bankruptcy is declared, including hours completed satisfactorily, will be disregarded in the cumulative grade point average.

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- B. When academic bankruptcy is declared, the term "ACADEMIC BANKRUPTCY" will be noted on the transcript for each semester affected. When academic bankruptcy is declared, the transcript will reflect the semester of its implementation and the transcript will be stamped "ACADEMIC BANKRUPTCY IMPLEMENTED."
- C. A student may declare academic bankruptcy only once.
- D. Implementation of academic bankruptcy at Calhoun does not guarantee that other institutions will approve such action. This determination will be made by the respective transfer institution(s).

Student Course Overloads

A full-time student must be enrolled for 12 semester credit hours or more each term. Students may register for more than 19 semester credit hours only with the written permission of the Vice President of Instruction and Student Services or designee. No student will be approved for more than 24 semester credit hours in any one term for any reason. "Miniterms/minimesters" are only a part of a full term/semester and are not considered as stand-alone/individual terms. No more than two (2) laboratory courses will be approved as part of any overload request.

To be considered for an overload, the student must meet the following criteria:

1. Have successfully completed a minimum of 18 semester credit hours with Calhoun; and
2. have a minimum of a 3.0 GPA for all coursework completed at Calhoun.

ADVANCED STANDING CREDIT

Credit by Transfer

Refer to General Principles for Transfer of Credit on page 19.

Credit from Nontraditional Sources

Calhoun Community College provides an opportunity for students to earn a reasonable amount of credit toward the Associate Degree or Certificate through methods other than formal classroom instruction. While nontraditional credit may apply toward degree and certificate programs granted by the college, it should not be assumed that such credit will automatically be accepted by other colleges.

Not more than 25% of total credit required for any program may be awarded through nontraditional means towards a degree from Calhoun. Students may not earn credit through nontraditional sources for any course in which a grade has been previously received. The types of nontraditional credit and procedures to follow are listed below:

COLLEGE LEVEL EXAMINATION PROGRAM-CLEP

Calhoun Community College honors credit earned through CLEP examinations provided appropriate scores are achieved and certain conditions are met. A minimum score at or above the 50th percentile is required for specific course credit.

Any elective credit earned by nontraditional means may apply toward the total number of hours required for graduation but may not apply toward specific requirements in a particular subject area. For example, elective credit in English will not meet degree requirements of six hours of composition.

Credit for SUBJECT EXAMINATIONS may be granted provided the student has not been enrolled for more than one week in the course for which credit is to be earned. CLEP credit is not granted for college level courses previously failed, for courses in which credit for higher level course work has been earned, or for both subject examination and its course equivalent. The CLEP Subject Exam will supercede the CLEP General Exam; credits will not be awarded for the Subject and General Exam in the same discipline.

CLEP SUBJECT EXAMINATIONS

Scores for computer based tests only.

Examination	Approx. Score	CCC Equivalent	Sem. Hrs.
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Business

Financial Accounting.....50	BUS 241	3
Information Systems and Computer Applications.....50	CIS 130.....	3
Management, Prin.....50	BUS 275	3
Marketing, Prin.....50	BUS 285	3

Composition and Literature

American Literature.....50	ENG 251-252	6
Freshman College Composition.....50	ENG 101-102	6
English Comp without Essay..50	ENG 101	3
English Comp with Essay....50	ENG 101-102	6
English Literature.....50	ENG 261-262	6

Science and Mathematics

Biology.....50	BIO 103-104.....	4-8
Calculus.....50	MTH 125.....	4
Chemistry.....50	CHM 111-112	8
Precalculus.....50	MTH 112.....	3
College Algebra.....50	MTH 100.....	3

Social Sciences

American Government.....50	POL 211.....	3
Human Growth & Dev.....50	PSY 210.....	3
Macroeconomics.....50	ECO 231.....	3
Microeconomics.....50	ECO 232.....	3
Psychology, Intro.....50	PSY 200.....	3
Sociology, Intro.....50	SOC 200	3
History of US to 1877.....50	HIS 201	3
History of US II 1865-present...50	HIS 202	3
Western Civ I.....50	HIS 101	3
Western Civ II.....50	HIS 102	3

Foreign Language

Credit for CLEP French, German, and Spanish allowed. Check with Admissions for specific test and scores.

The scores listed above are reflective of the computerized CLEP examination. Students who have CLEP scores from a paper and pen examination should contact the Admissions and Records Office for minimum scores to determine credit awards. Scores are estimates and subject to change without notice.

The policy of granting credit through CLEP at Calhoun Community College may differ from policies at other colleges. Check with other colleges to obtain additional information. Area colleges offering the CLEP are Alabama A&M, Athens State University, and UAH.

POLICE ACADEMY WORK

Credit may be available for completion of approved Peace Officer Training Courses/Programs. Consult the head of the Law Enforcement Program or the Registrar for information.

SPECIALIZED MILITARY TRAINING

Calhoun adheres to policies prescribed by the [Guide to the Evaluation of Educational Experiences](#) in the Armed Services published by the American Council on Education, in granting credit for military course work.

CREDIT FOR PRIOR EXPERIENCE

Credit may be granted through the following methods only:

1. Comprehensive Departmental Challenge Examinations;
2. CLEP General or Subject Examinations;
3. An evaluation of training as detailed in the [National Guide to Educational Credit for Training Programs](#);
4. Professional Secretary Certification (CPS);
5. Other experiences which have been received by the American Council on Education and credit recommendations published.

ADVANCED PLACEMENT TEST (AP)

Credit for the Advanced Placement Test will be awarded for a minimum score of three on subject tests. A maximum of 18 credits may be earned through the AP Program.

CAREER MOBILITY FOR PRACTICAL NURSES

Fifteen semester hours of nursing credit may be earned by challenge examination. See Nursing-Career Mobility under the College Program section of this catalog for program entry requirement.

SPECIALIZED TRAINING WITH INDUSTRY

Credit may be awarded for industry training provided:

1. A specific contractual agreement is in effect.
2. Industry training has been reviewed by the appropriate faculty in the discipline affected or designee.
3. In no way shall this be interpreted as a means of reviewing industry training on an individual basis. Calhoun Community College does not conduct portfolio reviews.

STATEWIDE CAREER/TECHNICAL ARTICULATION AGREEMENTS

Effective January 2006, students who have completed technical coursework in high school and enroll in the same program with Calhoun Community College may be eligible for advanced credit. Programs that are involved include: Industrial Maintenance, Machine Tool Technology, Air Conditioning and Refrigeration, Electrical Technology, and Design Drafting Technology.

To qualify for possible credit, a student must:

1. have earned a "B" or higher in courses to be articulated,
2. must be admitted to Calhoun,
3. credit allowed only for courses in their program of study,

and

4. no more than 16 months may have elapsed since high school graduation.

For specific information on programs, what credit may be awarded, and any other limitations, please contact the Division of Technologies and Workforce Development, faculty in specific programs, or the Office of Admissions and Records.

ADVANCED PLACEMENT VIA TECH PREP ARTICULATION AGREEMENTS

Please refer to the Tech Prep section of this catalog for additional information.

PROBATION AND SUSPENSION

A. Academic Standards of Progress

According to the number of hours a student has attempted with Calhoun, the following GPA levels must be met to remain in good academic standing:

1. 12-21 credit hours attempted at Calhoun, minimum cumulative GPA of 1.50;
2. 22-32 credit hours attempted at Calhoun, minimum cumulative GPA of 1.75;
3. 33 credit hours or more attempted at Calhoun, minimum cumulative GPA of 2.00.

B. Clear Academic Status

A student's status is clear when the cumulative GPA is at or above the GPA required for the total number of credit hours attempted at Calhoun.

C. Academic Probation

1. When a student's cumulative GPA is below the GPA required for the number of hours attempted at Calhoun, the student is placed on Academic Probation.
2. When a student on Academic Probation has a cumulative GPA below the requirement based on hours attempted at Calhoun, but the semester GPA is 2.00 or above, the student remains on Academic Probation.

D. SUSPENSION - ONE SEMESTER

When the cumulative GPA of a student on Academic Probation remains below the GPA required for the total number of hours attempted at Calhoun and the semester GPA is below 2.00, the student is suspended for one semester. The transcript will read SUSPENDED - ONE SEMESTER.

E. SUSPENSION - ONE YEAR

A student readmitted after serving a suspension or upon appeal re-enters on Academic Probation. If the cumulative GPA remains below the level required for the total number of hours attempted at Calhoun and the semester GPA is below 2.00, the student will be suspended for one calendar year. The student's transcript will read SUSPENDED - ONE YEAR.

F. APPEAL OF SUSPENSION

A student who wishes a reconsideration of his/her suspension, whether it is for one semester or for one year, must do so in writing to the College Admissions Committee. The student may present a rationale and/or mitigating circum-

General Information

stances in support of his/her request for readmission. The decision of the Admissions Committee for an appeal is final.

ATTENDANCE POLICY

FOR CLASSES OTHER THAN DISTANCE EDUCATION/HYBRID CLASSES:

Attendance is taken for each class meeting. Absences are counted beginning with the first class meeting after the student registers; however, students are responsible for all coursework and assignments made or due from the first day of class. In general, students should have no more than 4 absences for a 15-week term, no more than 3 absences for a 10-week term, no more than 2 absences for an 8-week term, and no more than 1 absence for a 5-week term. Each course syllabus will clearly state the number of absences considered as the acceptable maximum for the class as well as how late arrivals and early departures will be handled. Each course syllabus will also state policies regarding make-up work, if allowed. The policies stated in the course syllabus for a student's specific class will be the policies for which the student will be held accountable. Communication with the instructor concerning absences is essential. If a student has excessive absences, s/he is encouraged to withdraw from the course after consulting with the instructor. Instructors will not withdraw students for any reason. **If a student fails to officially withdraw from a course, this could result in a grade of F and adversely impact financial aid.** Withdrawing from a course is the responsibility of the student. Therefore, a grade of F will not be changed without written approval from the Vice President of Instruction and Student Services. Military personnel who are involuntarily called to active duty for unscheduled and/or emergency situations and those individuals called for jury duty will be excused with official documentation. College related events which the student is required to attend by the club sponsor and which have been approved by the appropriate Dean, will also be excused. Official documentation will be required. Make-up work will be accepted under these excused circumstances as outlined in the individual course syllabus.

FOR DISTANCE EDUCATION/HYBRID CLASSES:

Attendance in a Distance Education or Hybrid course will be recorded within the **FIRST WEEK** of the course by one or more of the following:

- Student contact with the instructor through attendance at an on-site orientation session;
- Student participation in an online orientation session that is tracked through Blackboard's "Student Tracking" feature, or through "Tegrity Reports", or similar features in other course management systems;
- Student sending an e-mail to the instructor's Calhoun address or through Blackboard e-mail;
- Student making phone call to the instructor's Calhoun office or an in-person visit to the instructor; and/or
- Student submission (online or in-person) of completed assessments, assignments, essays, or other course related work

After the first week, the student's "attendance record" will be based on the student's meeting course requirements such as submitting assignments or communicating with the instructor as outlined in the course syllabus. It is expected that a student will receive a weekly attendance record based on requirements stated in the course syllabus. If a student does not meet attendance requirements as stated in the course syllabus, the student is encouraged to officially withdraw from the course. **Failure to officially withdraw from the course could result in a grade of F and adversely impact financial aid.**

Final Examination Attendance

Attendance at final examinations is mandatory. Such examinations are administered in all academic subjects at the end of each semester in accordance with an examination schedule issued by the Dean or

designee. Any student who must miss a final examination has the responsibility of notifying his/her instructor to make arrangements to take the final examination on an alternate date, if possible. This is accomplished by filling out a form entitled "Permission to Alter Final Examination Schedule" which may be obtained in divisional/departamental offices. One copy of the form is retained by the faculty member and one copy is retained by the student. Faculty members should not change the published class examination schedule without prior approval from the Dean or designee

RECOGNITION OF ACADEMIC EXCELLENCE

President's List

Calhoun publishes a President's List at the end of each semester. The President's List contains the names of all students carrying 12 or more semester hours who have earned a grade point average of 4.00. Developmental courses will not count toward minimum course load requirement for academic recognition.

Dean's List

Calhoun publishes a Dean's List at the end of each semester. The Dean's List contains the names of all students carrying 12 or more semester hours who have earned a grade point average of 3.50 through 3.99 and who have made no grade below a "C." Developmental courses will not count toward minimum course load requirement for academic recognition. The GPA is figured by semester, and the Dean's List is not based on the student's cumulative GPA.

Phi Theta Kappa

Calhoun students who compile a 3.5 grade point average for 12 semester hours of non-remedial course work are invited to join Sigma Lambda Chapter of Phi Theta Kappa, the International Honor Society for two-year colleges. Once admitted, members must maintain at least a 3.00 GPA to retain membership. Phi Theta Kappa members participate in scholastic and community service activities as well as social events and leadership training. Members may qualify for numerous scholarships to four-year colleges and universities throughout the United States. Phi Theta Kappa members are authorized to wear the prestigious gold membership pin after induction, and the distinctive gold tassel and stole with their graduation gown. The transcripts of Phi Theta Kappa members are stamped with the distinctive honors seal when forwarded to other colleges or universities. Membership in the society is considered an asset for an employment resume.

GRADUATION

Calhoun Community College awards the Associate in Arts, the Associate in Science, the Associate in Applied Science Degrees, and Certificates for non-degree programs.

DEGREES

The **Associate of Arts Degree** is awarded to students who complete a planned university parallel program and the General Education Minimum Requirements for the Associate in Arts Degree as outlined in this catalog.

The **Associate of Science Degree** is awarded to students who complete a planned program in a specific field or area of concentration. A majority of the Associate of Science Degree Programs are designed for those students who plan to transfer to four-year institutions and pursue programs of study requiring specialization on the freshman and sophomore

levels. However, certain Associate of Science Degree Programs are intended as two-year career-level programs.

Cum Laude	3.50 to 3.69 GPA
Magna Cum Laude	3.70 to 3.89 GPA
Summa Cum Laude	3.90 to 4.00 GPA

The **Associate of Applied Science Degree** is awarded to students who satisfy the requirements of a specific career, technical, or occupational degree program as outlined in this catalog.

Degree Requirements

1. a. **Seven year review.** Students who have had an extended stay with Calhoun Community College may have coursework completed that is no longer valid. Therefore, any applicant for graduation who has coursework more than seven years old may be required to repeat coursework before a degree/certificate is awarded to ensure that their skills and knowledge are at today's standards.
- b. Determine degree requirements for approved catalog. Students may elect to graduate using course requirements under the catalog in effect at the time of enrollment (provided the courses/programs are still available and understanding that a seven year review of courses will occur) or the catalog in effect at the time of graduation. Any exception to the catalog rule must be approved by the registrar upon submission of an application for graduation.
2. Complete 60 - 72 semester hours of college credit work in planned program of study. (Courses considered as developmental will not apply to degree requirements.)
3. Earn a minimum grade point average of 2.00 in all courses taken for graduation. Degree applicable courses are calculated into a grade point average and can affect the graduation GPA.
4. Complete at least 25% of the total semester hours at Calhoun Community College.
5. Be enrolled during the semester the degree is earned; or with the approval of the Vice President for Instruction and Student Services or designee, a student may graduate if, within a calendar year of the last semester of attendance, he/she transfers to Calhoun no more than 6 credit hours required for completion of the program. A minimum grade of "C" is required in the courses transferred.
6. Submit an application for graduation to the Office of Admissions and Records at least one semester before graduation. Submit appropriate graduation fee to Business Office.
7. Clear all procedural, operational, and financial obligations to the college.

CERTIFICATES

Certificates are awarded to those students who successfully complete the designated requirements in career programs.

HONOR GRADUATES

To graduate with honor, a student must maintain the following quality point average on all college level course work (developmental courses not included) considered for degree requirements. Also, the degree being conferred must require 32 or more semester hours. NOTE: Please remember, transfer coursework is not calculated into a student's grade point average, except for graduation and honor's consideration.

VISITING STUDENT PROGRAM

A cooperative arrangement exists with Alabama A & M University, Athens State University, Oakwood University, the University of Alabama in Huntsville, and Calhoun Community College. Under this arrangement, a student at any of the participating institutions may request permission to attend a class at one of the other schools. Conditions governing the granting of permission include the following:

1. The student must be a full-time student.
2. The student must have an overall "C" average.
3. The course desired must be unavailable at the student's home institution but be included in the student's home institution catalog.
4. The student's request must be approved by the student's advisor and other appropriate personnel.
5. Permission of the institution teaching the course is dependent upon availability of space for the visitor after its own students are accommodated.
6. Distance Education and CIS courses are restricted enrollment and are not normally available to visiting students.
7. Enrollment in courses is subject to appropriate prerequisite and/or placement testing.

Any student interested in participating in the Visiting Student Program should contact the Office of Admissions for additional information.

NOTE: Enrollment in courses is subject to appropriate prerequisite and/or placement testing.

LIBRARY SERVICES

<http://lib.calhoun.edu/lib/>

Mission: We put information in the hands of users.

Brewer Library, Decatur Campus

The Albert P. Brewer Library is located on the Decatur Campus. Books, eBooks, magazines and journals, newspapers, books-on-tape, books-on-CD, literary periodicals in microform, and Reserve materials are included in the holdings.

Computer workstations provide access to print materials as well as full text NetLibrary electronic books (eBooks) through the Library Catalog found on the Brewer Library/LRC Web site at <http://lib.calhoun.edu/lib/>.

Calhoun students (including Dual Enrollment) and faculty have online access to a group of licensed, online databases offered through the Alabama Virtual Library. Thousands of magazines, journals, newspapers, and trade publications offer full-text articles. All licensed, online databases are accessible on campus from networked computers and all are accessible remotely via authentication of a Username and Password.

Workstations offer access to Microsoft Office 2007 application soft-

General Information

ware (Word, Excel, Access, and PowerPoint). In addition, students can access Web Advisor and portals for distance education classes using Library workstations.

Reciprocal borrowing privileges are in place for Calhoun students and faculty to borrow books at the libraries of Athens State University and Alabama A&M University without a charge. The UAH Library charges a \$15 annual fee for the checkout of materials. All three cooperating libraries require valid identification that the student is registered at Calhoun for the current semester. Community patrons are also invited and encouraged to register for a Calhoun Library Card. A driver's license and social security number are required for registration as a Community Borrower at both the Library and LRC.

Personal assistance in conducting library research and traditional reference services are offered. Library instruction for English 101 classes can be scheduled by communicating with the Reference Librarian (x2777).

The Library Instruction Room is equipped with 23 workstations for hands-on use and may be scheduled by instructors and other groups by calling the circulation staff at x2774.

Library orientation is provided through handouts, guides, flyers, posters, 2CTV, and 4CTV. Handouts and guides are available online through the Library/LRC Web site. Online tutorials for searching selected databases are also accessible through the Library/LRC Web site.

TILT (The Information Literacy Tutorial) is available to ORI 101 students and teaches the basics of information literacy.

For more Library information, including hours, please access the Brewer Library/LRC Web site.

Learning Resources Center, Huntsville Campus

The Learning Resources Center (LRC) is located on the Research Park Campus. Online access to LRC and Brewer Library materials is accessible through the Brewer Library/LRC Web site, <http://lib.calhoun.edu/lib/>.

Computer workstations offer access to licensed, online databases through the Alabama Virtual Library. These licensed databases with full-text articles are accessible to Calhoun students and faculty from networked computers on the Huntsville campus and remotely via a Username and Password.

In addition, LRC computer workstations offer access to the print and eBook collections through the Library Catalog accessible on the Web site. More than 46,000 NetLibrary eBooks offer full text books to all students, faculty, and community patrons who create a free account using a Calhoun networked computer.

Microsoft Office 2007 as well as Web Advisor and portals for distance education classes can also be accessed from LRC workstations.

A collection of print magazines, journals, and newspapers is available for casual reading.

A Virtual Reference Desk accessible from the Library/LRC Web site offers Web based dictionaries, handbooks, encyclopedias,

and directories.

Librarians offer personal assistance in conducting library research. Inquire at the Information Desk in person, or ask via email at reference@calhoun.edu.

LRC orientation is provided through handouts (print), guides, flyers, posters, and 2CTV. These same guides, as well as tutorials, can be found on the Library/LRC Web site.

TILT (The Information Literacy Tutorial) is accessible to ORI 101 students and teaches the basics of information literacy—how to select, access, evaluate and use information resources available through the LRC and Brewer Library.

LRC librarians offer hands-on library instruction for English 101 classes upon request by the instructor. Please call x4771 (day) or 4777 (evening).

The LRC Multimedia Room (MMR) offers 31 student workstations, a large screen, LCD and Internet access and can be scheduled by instructors for classes or groups by calling x4771.

For more LRC information, including hours, please access the Brewer Library/LRC Web site at <http://lib.calhoun.edu/lib/>.

Center for the Study of Southern Political Culture

The Center for the Study of Southern Political Culture (CSSPC) is an archive and exhibit of political literature and related items from national, state, and local campaigns and political activities such as the Civil Rights Movement. The collection is housed in the LRC at the Research Park Campus in Huntsville. It is open by appointment. Inquiries should be addressed to Dr. Waymon E. Burke, Project Director.

SPECIAL PROGRAMS

ADULT EDUCATION (AE)

This program offers adults who are 16 years of age and older the opportunity to prepare for the GED, WorkKeys, High School Exit Exam, ASVAB or simply improve their academic skills. Persons who speak other languages also have the opportunity to learn to speak English as a second language through our ESL program. All of these services are provided free of charge.

Distance Learning is offered for Adult Education students who qualify and have the proper computer equipment.

Each participant begins by taking a diagnostic exam to determine qualifications and his/her individual need. Instruction is on an individualized basis. Based upon the results of the diagnostic exam, the student and instructor design a program to help reach the student's goal.

Persons who complete the WorkKeys Assessment tests and make a minimum score of 3 in Applied Mathematics, Reading for Information and Locating for Information will receive a Career Readiness Certificate from the State of Alabama. These certificates will be awarded according to the score achieved. A score of 3 will earn bronze, 4 a silver or 5 a gold certificate.

Contact the Adult Education Office at 256-306-2830 in Decatur or 256-890-4729 in Huntsville to make an appointment for the diagnostic test.

General Education Development Testing Service

Calhoun Community College's General Education Development (GED) Testing Service is a program of the American Council on Education. Our primary mission is to provide a reliable process for certifying that adults possess the major and lasting outcomes of a traditional high school education. Calhoun Community College accepts the GED diploma as a component for admission.

- Pre-registration is mandatory.
- Candidates must be eighteen (18) years of age; exceptions for 16 and 17 year olds with proper documentation.
- Test fees are applicable.
- Special accommodations are available upon approval.

The GED tests are administered at the Decatur and Huntsville campuses.

The GED Testing Center is located in the Business Center auditorium (Decatur campus). For more information call (256) 306-2610 for Decatur test and (256) 713-4801 for Huntsville.

COMMUNITY EDUCATION CLASSES

The Community Education Program at Calhoun Community College offers something for everyone! Whether you're looking for a new hobby, or want to start your own business, we have a class for you. Classes are designed to provide you with the skills you need to pursue your goals. We offer classes for adults as well as teens and children during convenient times to meet your schedule. Sign up today and join the fun! We look forward to seeing you in our community

education program.

For a complete listing of courses available and registration, visit our website at <http://www.calhoun.edu/bis/communityed>

ONLINE COURSES

Online Courses through Ed2Go

Calhoun Community College in partnership with Education 2 Go offers more than 250 highly interactive courses that you can take entirely over the Internet. All of our courses include expert instructors, many of whom are nationally known authors. Most courses start as low as \$89.00. Our online courses are affordable, fun, fast, convenient, and geared just for you. Courses are offered in:

- **Computers and Technology**
- **Writing and Language**
- **Business and Careers**
- **Grant Writing and Nonprofit Management**
- **Personal Enrichment**
- **Professional Development**

All courses run for six weeks, with a two-week grace period at the end. Two lessons are released every Wednesday and Friday by noon Eastern time for the six-week duration of the course. You do not have to be present when lessons are released. You will have access to all lessons until the course ends. New sections start monthly!

For a complete listing of courses available and registration, visit our website at <http://www.ed2go.com/calhouncalculs/>.

COOPERATIVE EDUCATION

Calhoun Community College's Cooperative Education Program affords students the opportunity to acquire on the job experience before graduation by combining studies at Calhoun with a related work experience in business/industry. The program offers two work plans, the Parallel Plan and the Alternating Plan. The Parallel Plan allows the student to work on a part-time basis (a minimum of 20 hours per week) in a job directly related to his/her academic major while attending school on a full-time basis. Under the Alternating Plan, students alternate semesters of study at Calhoun with semesters of full-time work in business/industry. Cooperative education is also available to students already working in a job that is related to their major.

Requirements

Participation in the Cooperative Education Program is open to students who maintain an overall 2.5 grade point average.

Application Procedures

Students who wish to be considered for the Cooperative Education Program should complete the following steps:

1. Submit an "Application for Cooperative Program" form, which may be obtained from the Cooperative Education Office;
2. Provide a Calhoun Community College transcript and current class schedule;
3. Be recommended in writing by an instructor in his/her major;
4. Contact the Cooperative Education office at 256-306-2938 for more information.

General Information

TECH PREP

Tech Prep is a program of study designed to prepare students for today's technologically demanding workplace. Tech Prep helps students identify career pathways that lead to an associate or baccalaureate degree or a post-secondary certificate in a specific career field. Calhoun Tech Prep works with area high schools to improve technical and academic preparation of students and provide a transition plan for those students seeking to enter a two-year college program in a technical field of study.

Calhoun Community College is a member of the "Advanced Technologies" Tech Prep consortium with Athens City Schools, Decatur City Schools, Hartselle City Schools, Limestone County Schools, Madison City Schools and Morgan County schools.

Articulation agreements, which award college credit for identified high school coursework completed under the Tech Prep program, have been established in the areas of technology, business, computer information systems, graphic arts, child development and medical terminology. The articulated high school courses contain the same course content as an equivalent college course and Calhoun has agreed to award college credit to those students who meet the requirements outlined in the course articulation agreement. In order to receive articulated credit, a student must be admitted to Calhoun and must request articulated credit no later than 16 months following high school graduation.

The Tech Prep program also works with middle and high schools in the consortium to conduct numerous programs that promote Career/Technical Education including CHOICES, the annual Career & Workforce Expo and the High Tech Symposium series.

For more information on the Tech Prep program call 256/306-2665.

DISTANCE EDUCATION

Distance Education is the use of technology to provide instruction to students who desire to learn outside the regular classroom; it is a way of taking college credit courses in your home or community. Distance Education courses combine academic quality, rigorous challenge, and **convenience**. Calhoun offers a variety of courses for the distance learner. Distance Education at Calhoun includes multiple instructional technologies: telecourses in cassette, CD or DVD and on Calhoun television station (4CTV), Alabama Public Television, or internet. Students register for the course, obtain course information and receive instruction by one of the aforementioned technologies. Internet courses require that students access the World Wide Web from their home or work. Students needing more information about Distance Education should call (256) 306-2846.

WEEKEND COLLEGE

Weekend College is available at the Huntsville/Research Park location during Fall and Spring semesters. Classes meet on Saturdays. For more information regarding Weekend classes in Huntsville, call (256) 890-4701. The semester schedule includes all weekend course offerings.

STATEWIDE TRANSFER AND ARTICULATION REPORTING SYSTEM (STARS)

In order to assist Calhoun Community College students with the transferring of courses to other institutions of higher education in the state, Calhoun is a full member in the Statewide Transfer and Articulation Reporting System (STARS).

The STARS computerized advising system has been created to inform students of the courses that they can take and transfer among public institutions within the State of Alabama without losing credit. Go to the STARS website at <http://stars.troy.edu>.

BUSINESS AND INDUSTRY SERVICES

Our mission is to provide accessible, quality educational opportunities, promote community and economic development, and enhance the quality of life for those we serve. To achieve this mission, we partner with companies to support and extend their training capabilities to meet increasingly complex job skill needs.

Our services are unique because they are low in cost, convenient, flexible and can be customized to meet the unique needs of business and industry.

A number of job-related services are provided, including ACT WorkKeys Job Profiling to determine the basic skills needed for specific jobs; individual assessments to determine the level of skills one can bring to a job; instructional programs that can be targeted to the specific skill development needs of individuals; and customized training to meet the specific needs of companies and organizations. The ACT Center provides workkeys assessments for businesses in the college service area by appointment. For more information, contact the ACT Center at (256) 306-2522.

Professional Development Training is available in several subjects such as ISO 9001:2000, basic statistics for quality engineering, leadership training, lean manufacturing, as well as personal development, computer usage, safety, technology, and business development courses.

Industrial Maintenance Training is offered in the following areas: millwright maintenance mechanic, electronics, instrumentation technicians, HVAC, plumbing, and welding for plate and pipe (construction and industrial) using NCCR, Contren curriculum. Online Industrial Maintenance Training is available. For more information, contact Tom Collins at 256-306-2664.

Non-credit Healthcare Certification Programs include Medical Billing and Coding, Phlebotomy, and Pharmacy Technician.

Commercial Truck Driving Training (CDL)

There is a federal requirement that each state have standards for the licensing of commercial drivers. This class provides driver license testing information and training for unskilled drivers who wish to have a commercial driver license (CDL) and endorsements. To get a CDL, you must pass knowledge and skill tests. This class will help you prepare to pass the tests.

Course Code: CDL 900
Course: 200 hours; 7:00 a.m. – 5:30 p.m.
Monday – Thursday;
Classes begin every five weeks
Cost: Please contact the College's Business and Industry Office at 256-306-2584 for cost
Location: Decatur Campus – Aerospace Training Center
Instructor: Mary Smith

Corporate IT Training is offered in Microsoft Certified Systems Engineering, Microsoft Certified Database Administrator, Microsoft Certified Solutions Developer, Comp TIA, A+, and Networking+ as well as other programs.

Further details are available on the Business and Industry Services website: www.calhoun.edu then click on Business and Industry.

ACT Online Classes

Calhoun Community College operates an ACT Center with over 5,000 online, skill-based courses. The ACT Center offers convenient online courses and online training for businesses and individuals. The courses are available at your convenience, and may be taken from any computer with Internet access available.

The ACT Center offers courses in the following areas:

- Management
- Workplace Safety
- Basic Office Skills
- Basic Computer Skills
- Networking Fundamentals

For more information visit
<http://www.actcenterlearning.com/calhoun>.

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Programs of Study



CALHOUN
COMMUNITY
COLLEGE

Your Community. Your College. Your Future.

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ELECTIVES

FOR PURPOSES OF FULFILLING PROGRAM REQUIREMENTS, CALHOUN PROVIDES THE FOLLOWING DEFINITIONS:

AREAS RECOMMENDED AS HUMANITIES AT CALHOUN

Courses in humanities ideally serve to give the student a broader understanding of the dimensions of man, the human condition, and human culture. The student may select courses from the following areas to satisfy Calhoun requirements (A=Fine Arts, H=Humanities):

Art (A)	Philosophy (H)
Foreign Language (H)	Religion (H)
Literature (H)	Theatre (A)
Music (A)	

AREAS RECOMMENDED AS SOCIAL AND/OR BEHAVIORAL SCIENCES AT CALHOUN

Courses in the social sciences should give the student a broader understanding of social systems and the ways in which human beings relate to each other and to socio-economic-political conditions. At Calhoun, students may select courses from the following areas to satisfy Calhoun requirements:

Anthropology	Political Science
Economics	Psychology
Geography	Sociology
History	

AREAS RECOMMENDED AS NATURAL SCIENCES AT CALHOUN

Courses in the natural sciences are based on investigation of natural phenomena through the processes of reason based on systematic empirical observation. At Calhoun, the student may select courses from the following areas to satisfy Calhoun requirements:

Astronomy
Biology
Chemistry
Physical Geography
Physical Science
Physics

Each student should work closely with his/her advisor to determine the course preference for transfer to a specific program, college, or university.

Calhoun Community College has general educational outcomes expected of all graduates. All students graduating from Calhoun Community College will have competencies in critical thinking; communication; quantitative reasoning; scientific reasoning; cultural literacy; information and computer literacy and diversity. In each of the general education courses, students will cultivate these skills.

GENERAL EDUCATION REQUIREMENTS

ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREE:

Area I: Written Composition I and II6 Credit Hours

Area II: Humanities and Fine Arts12 Credit Hours

- *Must complete 3 semester hours in Literature.
- Must complete 3 semester hours in the Arts.

Area III: Natural Science and Mathematics11 Credit Hours

- Must complete 3 semester hours in Mathematics at the Precalculus Algebra or Finite Math Level.
- Must complete 8 semester hours in the Natural Sciences which include Laboratory Experiences.

In addition to Mathematics, disciplines in the Natural Sciences include Biology, Chemistry, Physics and Physical Science.

Area IV: History, Social, and Behavioral Sciences12 Credit Hours

- *Must complete 3 semester hours in History.
- Must complete at least 6 semester hours from among other disciplines in the Social and Behavioral Sciences. Social and Behavioral Sciences include, but are not limited to, Economics, Geography, Political Science, Psychology, and Sociology.

Area I – IV: Minimum General Education Requirements41 Credit Hours

Area V: Pre-Professional, Pre-Major, and Elective Courses** 19 – 23 Credit Hours

- Courses appropriate to degree requirements and major of the individual student and electives.

Students completing courses that have been approved for the General Studies Curriculum and are appropriate to their major and/or degree program may transfer these courses with credit applicable to their degree program among two-year and four-year colleges and universities.

Area I – V: General Studies Curricula** 60 – 64 Credit Hours

- * Must complete a 6 semester hour sequence in either Literature or History. The sequence in Area II and Area IV in Literature or History needs to follow the sequence requirement according to the student's major and transfer plans.

- ** Respective program of study for baccalaureate degrees at Alabama public universities range from 120 to 128 semester credit hours in length.

Dependent upon the total hours allocated for the bachelor's degree, institutions in The Alabama Community College System will be authorized to provide only 50 percent of that total (60 – 64).

ASSOCIATE IN APPLIED SCIENCE DEGREE:

Area I: Written Composition I and II3 – 6 Credit Hours

Area II: Humanities and Fine Arts3 – 6 Credit Hours

In addition to Literature, disciplines include, but are not limited to, Art, Music, Philosophy, Religion, Spanish and Theater.

An additional three hours are required in Speech3 Credit Hours

Requirements Prescribe: Minimum of 9 hours in Area I and Area II which could include 6 hours in Written Composition I and II and 3 hours in Area II; or 3 hours in Written Composition I and 3 hours in Technical Writing and 3 hours in Area II; or 3 hours in Area I and 6 hours in Area II; or 3 hours in Area I and 3 hours in Speech in Area II, plus 3 additional hours in Area I or II.

Area III: Natural Science and Mathematics9 – 11 Credit Hours

In addition to Mathematics, disciplines in the Natural Sciences include Biology, Chemistry, Physics and Physical Science.

Requirements Prescribe: Distributed in Mathematics (100 or above) or Science or Computer Science. Minimum of 3 hours in Mathematics is required.

One Computer Science course is required.

Area IV: History, Social, and Behavioral Sciences3 – 6 Credit Hours

In addition to History, the Social and Behavioral Sciences include, but are not limited to, Economics, Geography, Political Science, Psychology, and Sociology.

Area I – IV: Minimum General Education Requirements18 – 29 Credit Hours

Area V: Maximum General Education Core, Technical Concentration, and Electives47 – 58 Credit Hours

Courses appropriate to degree requirements, occupational or technical specialty requirements, core courses, and electives.

Area I – V: General Studies Curricula76 Credit Hours

Semester Credit Hour Range of Award60 - 76

ACADEMIC PROGRAMS

ASSOCIATE OF ARTS/SCIENCE DEGREES

ASSOCIATE OF ARTS DEGREE (CIP 24.0101) ASSOCIATE OF SCIENCE DEGREE (CIP 24.0102)

The Associate of Arts (AA) and the Associate of Science (AS) Degrees are designed for transfer to senior institutions and to serve as pre-major programs of study. The following course listings for AA and AS Degrees conform to the approved articulation agreements as developed under the Alabama Statewide Transfer and Articulation Reporting System (STARS) and as approved by the Articulation and General Studies Committee.

Students who plan to transfer to an Alabama public senior institution after completing an Associate of Arts or Associate of Science Degree at Calhoun are advised to go to <http://stars.troy.edu> to obtain a transfer guide from STARS and to follow that guide in completing their degree at Calhoun. Students planning to transfer should contact the senior institution to determine if there are specific requirements, restrictions, and/or prerequisites which apply to the senior institution or to specific programs at that institution.

Students are advised to read footnotes in the following listings as these are designed to assist students in identifying requirements, restrictions, and/or prerequisites which are specific to certain majors and/or senior institutions.

ACCOUNTING

Associate of Science Degree

Program Code: **AS.ACCT**

CIP Code: **24.0102**

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (ENG 251/252 or ENG 261/262 or ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
*MTH Elective (Choose from MTH 112, MTH 113, MTH 115 OR MTH 120, MTH 125, MTH 126).....	3-4
Natural Science Electives.....	8
HIS Elective	3
ECO 231 Principles of Macroeconomics	3
ECO 232 Principles of Microeconomics	3
PSY 200 General Psychology OR SOC 200 Introduction to Sociology OR ANT 200 Introduction to Anthropology	3
Total.....	42-43

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
**BUS 246 Accounting on the Microcomputer OR BUS 272 Business Statistics	3
BUS 248 Managerial Accounting	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
CIS 146 Microcomputer Applications	3

Total21

TOTAL CREDITS63-64

* Some universities such as UAH and Auburn require MTH 120 OR MTH 125. Other universities such as Athens State accept MTH 112. Please check with senior institution.

** Check with senior institution for program requirements.

AGRICULTURAL SCIENCE

Associate of Science Degree

Program Code: **AS.AGR**

CIP Code: **24.0102**

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272.....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
BIO 103 Principles of Biology I.....	4
BIO 104 Principles of Biology II	4
MTH Elective (Choose from MTH 112, MTH 113, MTH 115 or MTH 125).....	3-4
History Sequence (HIS 121/122 or HIS 201/202.....	6
Social/Behavioral Science Electives.....	6

*Must complete a two course sequence in Literature and in History

Total.....42-43

Programs of Study

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I	4
CHM 112 College Chemistry II	4
CHM 221 Organic Chemistry I	4
CHM 222 Organic Chemistry II	4
PHY 213 General Physics with Cal I	4
PHY 216 Recitation in Physics with Cal I	1

Total20

TOTAL CREDITS62-63

ART

Associate of Science Degree

Program Code: AS.ART

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272)	3
Fine Arts Elective (Must take ART 203)	3
SPH 107 Fundamentals of Public Speaking	3
MTH Elective (Choose from MTH 110 or MTH 112)	3
Natural Science Elective (must include lab experiences)	8
History Sequence (Choose from HIS 121/122 or HIS 201/202)	6
Behavioral/Social Science Electives (other than history)	6
Total	42

Some of the courses below are only offered once each year. See the course description section.

MAJOR COURSE REQUIREMENTS

ART 113 Drawing I	3
ART 114 Drawing II	3
ART 121 Two Dimensional Composition I	3
ART 122 Two Dimensional Composition II	3
ART 204 Art History II	3
*ART 233 Painting I	3
*ART 299 Portfolio	1
*ART Electives (Recommend: Computer Graphics I, Color, Printmaking I, Sculpture or Ceramics I)	3
Total	22

TOTAL CREDITS64

*These classes are recommended for majors, but students must refer to the institution to which they will transfer to know the courses that will apply to a 4-year degree.

BIOLOGICAL SCIENCE

Associate of Science Degree

Program Code: AS.BIOL

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272)	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking	3
BIO 103 Principles of Biology I	4
BIO 104 Principles of Biology II	4
MTH Elective (Choose from MTH 112, MTH 113, MTH 115, MTH 125)	3-4
HIS Sequence (Choose from HIS 121/122 or HIS 201/202)	6
Social/Behavioral Science Electives (other than history)	6
Total	42-43

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I	4
CHM 112 College Chemistry II	4
*CHM 221 Organic Chemistry I, CHM 222 Organic Chemistry II and PHY 213 OR PHY 213, PHY 214, and CHM 221	12
Total	20

*Consult the STARS system for senior institution requirements. Two semesters of calculus-based physics are strongly recommended.

TOTAL CREDITS62-63

BIOTECHNOLOGY

Associate of Science Degree

Program Code: AS.BTC

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272)	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking	3
BIO 103 Principles of Biology	4
CHM 111 College Chemistry I	4
MTH Elective (Choose from MTH 112, MTH 113, MTH 115, MTH 125)	3-4

HIS Sequence (Choose from HIS 121/122 or HIS 201/202).....	6
Social/Behavioral Science Electives (other than history)	6
Total.....	42-43

MAJOR COURSE REQUIREMENTS:

CHM 112 College Chemistry II	4
BIO 105 Introduction to Biotechnology	4
BIO 107 Cell Culture	4
BIO 203 Techniques in Molecular Biology.....	4
BIO 252 Directed Studies in Biotechnology.....	2
BIO 254 Advanced Topics in Biotechnology.....	2
BIO 256 Biotechnology Internship.....	2

Total22

TOTAL CREDITS64-65

BUSINESS

Associate of Science Degree

Program Code: AS.BUS CIP Code: 24.0102

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (ENG 251/252 or ENG 261/262 or ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
*MTH Elective (Choose from MTH 112, MTH 113, MTH 115 OR MTH 120, MTH 125, MTH 126).....	3-4
Natural Science Electives.....	8
HIS Elective	3
ECO 231 Principles of Macroeconomics	3
ECO 232 Principles of Microeconomics	3
PSY 200 General Psychology OR SOC 200 Introduction to Sociology OR ANT 200 Introduction to Anthropology	3
Total.....	42-43

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 272 Business Statistics II	3
CIS 146 Microcomputer Applications.....	3
*BUS or MTH Electives	3

*Some universities such as UAH and Auburn require MTH 120 OR 125. Other universities such as Athens State accept MTH 112. Please check with senior institution.

Total21

TOTAL CREDITS63-64

Programs of Study

CHEMISTRY

Associate of Science Degree

Program Code: AS.CHEM CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272)	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH 125 Calculus I.....	4
CHM 111 College Chemistry I	4
CHM 112 College Chemistry II	4
HIS Sequence (Choose from HIS 121/122 or HIS 201/202).....	6
Social/Behavioral Science Electives (other than history)	6
Total	43

MAJOR COURSE REQUIREMENTS

CHM 221 Organic Chemistry I.....	4
CHM 222 Organic Chemistry II.....	4
MTH 126 Calculus II.....	4
PHY 213 General Physics with Calculus I.....	4
PHY 214 General Physics with Calculus II.....	4
Total	20

TOTAL CREDITS.....63

COMPUTER INFORMATION SYSTEMS

Associate of Science Degree

Program Code: AS.CIS CIP Code: 24.0102

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (ENG 251/252 or ENG 261/262 or ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
*MTH Elective (Choose from MTH 112, MTH 113, MTH 115 OR MTH 120, MTH 125, MTH 126).....	3-4
Natural Science Electives.....	8
HIS Elective	3
ECO 231 Principles of Macroeconomics	3
ECO 232 Principles of Microeconomics	3
PSY 200 General Psychology OR SOC 200 Introduction to Sociology OR ANT 200 Introduction to Anthropology	3
Total.....	42-43

Programs of Study

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
CIS 146 Microcomputer Applications.....	3
CIS Programming Electives.....	9
*CIS Electives (Higher than CIS 146)	4

*Check for transferability with senior institution.

Total22

TOTAL CREDITS64-65

CRIMINAL JUSTICE

Associate of Science Degree

Program Code: AS.CRJ

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
Math Elective (MTH 110 OR MTH 112)	3
Natural Sciences Electives(must include lab experiences)	8
History Sequence (Choose from HIS 121/122 or HIS 201/202)	6
Social/Behavioral Sciences (other than history)	6

Total42

MAJOR COURSE REQUIREMENTS

CRJ 100 Introduction to Criminal Justice.....	3
Criminal Justice core elective (choose one of the following: CRJ 110, CRJ 150, CRJ 160)	3
CIS 146 Microcomputer Applications.....	3
Social/Behavioral Science elective.....	3
*Criminal Justice electives (Choose four of the following: CRJ 110, CRJ 130, CRJ 140, CRJ 146, CRJ 150, CRJ 157, CRJ 160, CRJ 208, CRJ 209, CRJ 216, CRJ 220, CRJ 230, CRJ 256, CRJ 280, CRJ 290)	10

Total22

TOTAL CREDITS64

*Students intending to transfer should consult with their major advisor in selecting their CRJ electives.

CHILD DEVELOPMENT

Associate of Science Degree

Articulation with Athens State University

Bachelor of Science in Education

Early Childhood Education Major (P-3)

Program Code: AS.CHD

CIP Code: 24.0102

This program is intended for students who wish to transfer to Athens State University.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Elective (Choose from ENG 251, ENG 252, ENG 261, ENG 262, ENG 271, ENG 272)	3
SPH 106 or SPH 107	3
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
Humanities or Fine Arts Elective	3
Mathematics Elective (Pre-Cal. Algebra or higher)	6
Math 100 or above	6
BIO 103 Principles of Biology I.....	4
BIO 104 Principles of Biology II.....	4
Physical Science Elective.....	4
History Elective.....	3
Social/Behavioral Science Electives	9
Total	55

MAJOR COURSE REQUIREMENTS

CHD 203, CHD 204, CHD 205, or CHD 215	3
CHD 206 Children's Health, Safety & Nutrition.....	3
CHD 209 Infant & Toddler Programs.....	3

Total9

TOTAL CREDITS64

Students transferring to Athens State University must confer with the Early Childhood Education Department at the University concerning additional course requirements.

ELEMENTARY TEACHER EDUCATION

Associate of Science Degree

Program Code: AS.ELEM

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6

Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (Choose from MTH 110 or MTH 112).....	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/HIS 202).....	6
Social/Behavioral Sciences (other than history)	6
Total	42

*Many 4-year schools recommend American History. Please consult your advisor.

MAJOR COURSE REQUIREMENTS

CIS 146 Microcomputer Applications.....	3
Natural Science (other than BIO).....	8
MTH 112 or higher.....	3-4
PSY 200 General Psychology	3
General Electives	1
HED 221 Personal Health OR HED 222 Community Health.....	3
Total	21-22

TOTAL CREDITS63-64

*Check with 4-year school via STARS.

ENGLISH

Associate of Arts Degree

Program Code: AA.ENGL CIP Code: 24.0101

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
Math elective (Choose from MTH 110 OR MTH 112)	3
Natural Science Electives (must include lab experiences)	8
History Sequence (Choose from HIS 121/122 or HIS 201/202)	6
Social/Behavioral Science electives (other than history)	6
Total	42

MAJOR COURSE REQUIREMENTS

CIS 146 Microcomputer Applications.....	3
General Electives (6 hours of Foreign Language sequence recommended).....	16-19
Total	19-22
TOTAL CREDITS	61-64

FIRE SERVICES MANAGEMENT

Associate of Science Degree

Program Code: AS.FSM CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Elective (Choose from ENG 251, ENG 252 ENG 261, ENG 262, ENG 271, ENG 272).....	3
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
SPA 101 Introduction to Spanish I.....	4
Math Elective (Choose from MTH 110 OR MTH 112).....	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/202)	6
Social/Behavioral Sciences (Choose two of the following: PSY 200, SOC 200, POL 211)	6
Total	42

MAJOR COURSE REQUIREMENTS

CIS 146 Microcomputer Applications	3
FSC 101 Introduction to the Fire Service.....	3
FSC 200 Fire Combat Tactics and Strategy.....	3
FSC 210 Building Construction for the Fire Service.....	3
FSC 240 Fire Cause Determination	3
FSC 292 Elements of Supervision/FS Supervision.....	3
Total	18

TOTAL CREDITS.....60

GENERAL EDUCATION

Associate of Science Degree

Program Code: AS.GENED CIP Code: 24.0102

This program is designed to include basic requirements for most four-year degrees while retaining maximum flexibility. The program allows students to coordinate programs at Calhoun with those of senior institutions. Consult an advisor for assistance in selecting electives.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3

Programs of Study

SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (Choose from MTH 110 or MTH 112)	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/HIS 202).....	6
Social/Behavioral Sciences (other than history)	6

Total42

MAJOR COURSE REQUIREMENTS

CIS Elective(s) (CIS 146 or higher)	3
Physical Education electives.....	2
General Electives.....	14-17

Total.....19-22

TOTAL CREDITS61-64

HEALTH AND PHYSICAL EDUCATION

Associate of Science Degree

Program Code: AS.HPE

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (Choose from MTH 110 or MTH 112)	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/HIS 202).....	6
Social/Behavioral Sciences (other than history)	6

Total42

*Recommend: Economics, Psychology and/or Sociology

MAJOR COURSE REQUIREMENTS

CIS Elective(s) (CIS 146 or higher)	3
HED 221 Personal Health	3
HED 222 Community Health.....	3
HED 226 Wellness OR PED 100 Fundamentals of Fitness	3
HED 230 Safety and First Aid OR HED 231 First Aid	3
PED 200 Foundations of Physical Education	3
PED 120 Techniques of Dual and Individual Sports	2
PED – Rhythms.....	1
PED – Fitness Activity (PED 105, 118, OR 119)	1

Total22

TOTAL CREDITS64

LAW/PRE-LAW

Associate of Arts Degree

Program Code: AA.LAW

CIP Code: 24.0101

Students planning a career in law may pursue a wide variety of undergraduate programs of study. Many law schools specify a bachelor's degree from an accredited college or university and an acceptable score on the LSAT exam (Law School Admission Test) as general requirements.

Electives should be chosen from a major area of study based on requirements of the institution from which the baccalaureate degree will be earned. Specific details for a pre-law program of study are a matter for each individual student to plan in consultation with advisors.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6
MTH 110 Finite Math OR MTH 112 Precalculus Algebra	3
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Electives.....	8
History Sequence (Choose from HIS 101-102, HIS 121-122, HIS 201-202.....)	6
Behavioral/Social Sciences (other than history)	6
Total	42

MAJOR COURSE REQUIREMENTS

CIS 146 Microcomputer Applications.....	3
General Electives	19

Total22

TOTAL CREDITS.....64

MATHEMATICS

Associate of Science Degree

Program Code: AS.MATH

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3

SPH 107 Fundamentals of Public Speaking.....	3
MTH 125 Calculus I.....	4
PHY 213 General Physics with Calculus I.....	4
PHY 214 General Physics with Calculus II.....	4
History Sequence (Choose from HIS 121/122, HIS 201/202)	6
Social/Behavioral Science Electives (other than history)	6

Total43

MAJOR COURSE REQUIREMENTS

MTH 126 Calculus II.....	4
MTH 227 Calculus III.....	4
MTH 237 Linear Algebra.....	3
MTH 238 Applied Differential Equations I.....	3
MTH 265 Elementary Statistics	3
CIS 251 C++ Programming	3

Total20

TOTAL CREDITS63

PRE-MEDICINE OR PRE-DENTISTRY

Associate of Science Degree

Program Code: AS.DENT

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272)	6
Fine Arts Elective (Choose from ART 100, ART 203 ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
BIO 103 Principles of Biology I.....	4
BIO 104 Principles of Biology II	4
MTH 125 Calculus I.....	4
HIS Sequence (Choose from HIS 121/122 or HIS 201/202).....	6
Social/Behavioral Science Electives (other than history)	6

Total43

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I	4
CHM 112 College Chemistry II	4
CHM 221 Organic Chemistry I.....	4
CHM 222 Organic Chemistry II.....	4
MTH 126 Calculus II.....	4

Total20

TOTAL CREDITS63

MEDICINE/PRE-VETERINARY MEDICINE

Associate of Science Degree

Program Code: AS.VET

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262 or ENG 271/272)	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
BIO 103 Principles of Biology I.....	4
BIO 104 Principles of Biology II	4
MTH 125 Calculus I.....	4
HIS Sequence (HIS 121/122 or HIS 201/202).....	6
Social/Behavioral Science Electives (other than history)	6

Total43

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I	4
CHM 112 College Chemistry II	4
CHM 221 Organic Chemistry I.....	4
CHM 222 Organic Chemistry II.....	4
PHY 213 General Physics with Cal I	4
PHY 216 Recitation in Physics with Cal I	1

Total21

TOTAL CREDITS64

MUSIC EDUCATION

Associate of Science Degree

Program Code: AS.MUED

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/ENG 252, ENG 261/ENG 262, ENG 271/ENG 272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
Math Elective (MTH 110 OR MTH 112)	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/202)	6
Social/Behavioral Science Electives (other than history)	6

Total42

Programs of Study

Some of the following courses are only offered once each year. See the course description section.

MAJOR COURSE REQUIREMENTS

*MUS 111 Music Theory.....	3
MUS 113 Music Theory Lab I.....	1
MUS 112 Music Theory II.....	3
MUS 114 Music Theory Lab II.....	1
MUP Electives in major instrument or voice.....	5
MUL Electives in ensembles.....	4
Class Piano required for non-keyboard majors	
**Electives.....	2
Total.....	19

*Prerequisite: Requires minimum grade of "C" in MUS 110 or acceptable score on placement test (75%)

**The remaining two major core hours must be fulfilled by the requirements of the institution to which the student plans to transfer. Please refer to the institutions homepage or catalog for a major in Music.

TOTAL CREDITS.....61

NURSING/PRE-NURSING

Associate of Science Degree

Program Code: AS.PRENU

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
ENG 102 English Composition II.....	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120).....	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (Choose from MTH 110, MTH 112).....	3
Natural Science Electives (must include lab experiences).....	8
History Sequence (Choose from HIS 121/122, HIS 201/202).....	6
Social/Behavioral Sciences (other than history).....	6
Total.....	42

MAJOR COURSE REQUIREMENTS

BIO 201 Human Anatomy and Physiology I.....	4
BIO 202 Human Anatomy and Physiology II.....	4
BIO 220 General Microbiology.....	4
MTH 265 Elementary Statistics.....	3
*Electives.....	4-8
Total.....	19-23

TOTAL CREDITS.....61-64

*The remaining 4-8 major course hours must be fulfilled by the

requirements of the senior institution to which the student plans to transfer. Please refer to the senior institution's home-page or catalog for a major in Nursing.

PHARMACY/PRE-PHARMACY

Associate of Science Degree

Program Code: AS.PHARM

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
ENG 102 English Composition II.....	3
Literature Sequence (Choose from ENG 251/252 or ENG 261/262 or ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120).....	3
SPH 107 Fundamentals of Public Speaking.....	3
BIO 103 Principles of Biology I.....	4
BIO 104 Principles of Biology II.....	4
MTH 125 Calculus I.....	4
HIS Sequence (Choose from HIS 121/122 or HIS 201/202).....	6
Social/Behavioral Science Electives.....	6

*Must complete a two course sequence in Literature and History.

Total.....43

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I.....	4
CHM 112 College Chemistry II.....	4
CHM 221 Organic Chemistry I.....	4
CHM 222 Organic Chemistry II.....	4
PHY 213 General Physics w/Cal I.....	4
PHY 216 Recitation in Physics with Cal I.....	1
Total.....	21

TOTAL CREDITS.....64

PHOTOGRAPHY AND FILM COMMUNICATIONS

Associate of Science Degree

Program Code: AS.PHOTO

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
ENG 102 English Composition II.....	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272.....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120).....	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (MTH 110 or MTH 112).....	3

Natural Science Electives (must include lab experiences).....	8
History Sequence (Choose from HIS 121/122, HIS 201/202).....	6
Behavioral/Social Science Electives (other than history).....	6
Total.....	42

Some of the courses below are only offered once each year. See the course description section.

MAJOR COURSE REQUIREMENTS

ART 173 Photography I	3
ART 174 Photography II	3
ART 176 Filmmaking.....	3
ART 177 Color Photography	3
ART 178 Audio-Visual Techniques.....	3
ART 273 Studio Photography I	3
ART 274 Studio Photography II	3
ART 299 Portfolio	1

Total.....22

TOTAL CREDITS64

PRE-ENGINEERING

Associate of Science Degree

Program Code: AS.PRE.EGR

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Elective (Choose from ENG 251, ENG 252, ENG 261, ENG 262)	3
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120).....	3
SPH 107 Fundamentals of Public Speaking	3
MTH 125 Calculus I	4
PHY 213 General Physics with Calculus I	4
PHY 216 Recitation in Physics with Calculus I.....	1
PHY 214 General Physics with Calculus II	4
PHY 217 Recitation In Physics with Calculus II	1
HIS Sequence (Choose from HIS 121/122 or HIS 201/202)	6
Social/Behavioral Science Elective	3

Total.....39

MAJOR COURSE REQUIREMENTS

CHM 111 College Chemistry I	4
MTH 126 Calculus II	4
MTH 227 Calculus III	4
MTH 238 Applied Differential Equations I	3

Total.....15

In addition, students must select 8-10 semester hours from the following courses based on the four-year requirements for the chosen

Programs of Study

engineering discipline (i.e., aerospace, civil, chemical, computer, electrical, industrial, materials, mechanical, etc.) Refer to the STARS Transfer Guide and the senior institution for transferability.

CHM 112 College Chemistry II	4
CHM 221 Organic Chemistry I	4
CHM 222 Organic Chemistry II	4
CIS 251 C++ Programming	3
MTH 237 Linear Algebra	3
MTH 270 Probability and Statistics Concepts	3
PHY 218 Modern Physics	4
EGR 100 Engineering Orientation.....	1
EGR 101 Engineering Foundations.....	3
EGR 125 Modern Graphics for Engineers	3
EGR 157 Computer Methods for Engineers using MATLAB	3
EGR 220 Engineering Mechanics - Statics	3

Total8-10

TOTAL CREDITS62-64

SECONDARY TEACHER EDUCATION

Associate of Science Degree

Program Code: AS.SECED

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252 ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH Elective (Choose from MTH 110 or MTH 112)	3
Natural Science Electives (Must include lab experiences)	8
History Sequence (Choose from HIS 121/122, HIS 201/HIS 202).....	6
Social/Behavioral Sciences (other than history)	6

Total42

MAJOR COURSE REQUIREMENTS

CIS 146 Microcomputer Applications.....	3
BIO 103 Principles of Biology.....	4
HED 221 Personal Health OR HED 222 Community Health	3
General electives * * *	12

Total22

TOTAL CREDITS64

*Choose courses from intended teaching major. See Area V on STARS guide for transferable courses.

**Students transferring to Athens State should take a one semester hour PED activity course.

THEATRE ARTS

Associate of Science Degree

Program Code: AS.THEA

CIP Code: 24.0102

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Literature Sequence (Choose from ENG 251/252, ENG 261/262, ENG 271/272).....	6
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
Humanities Elective	3
Math elective (MTH 110 OR MTH 112)	3
Natural Science Electives (Must include Lab Experiences).....	8
History Sequence (Choose from HIS 121/122, HIS 201/202)	6
Social/Behavioral Science Electives (other than history)	6
Total	42

MAJOR COURSE REQUIREMENTS

THR 113 Theatre Workshop I	2
THR 114 Theatre Workshop II	2
THR 115 Theatre Workshop III.....	2
THR 131 Acting Techniques I	3
THR 241 Voice and Speech for the Performer.....	3
*Electives	10
Total	22

TOTAL CREDITS64

*The remaining 10 major core hours must be fulfilled by the requirements of the institution to which the student plans to transfer. Please refer to the institutional homepage or catalog for a major in Theatre.

APPLIED DEGREES/CERTIFICATES

APPLIED TECHNOLOGY

The Associate of Applied Science Degree in Applied Technology will prepare graduates for employment in various technical career paths including aerospace technology, air conditioning & refrigeration, automation, design drafting, electrical technology, industrial maintenance (electrical, HVAC, instrumentation, and mechanical), machine tool technology, and process technology. Graduates will be prepared to work in a team-centered environment with demanding quality and safety standards. This program also provides enhancement training for individuals seeking skill advancement in their current positions. Graduates may also choose to pursue a baccalaureate degree in appropriate academic areas.

Note: The Associate of Applied Science Degree in Applied Technology is taking the place of the following stand-alone programs listed in Calhoun's 2007/2008 Catalog and Student Handbook: Aerospace Technology, Air Conditioning and Refrigeration, Design Drafting Technology, Electrical Technology, Machine Tool Technology, and Process Technology.

AEROSPACE TECHNOLOGY

With Concentration in Structures & Assembly or Welding

The Associate of Applied Science Degree in Applied Technology with a major in Aerospace Technology will prepare graduates for employment in aerospace and related industries through classroom and laboratory instruction in propulsion structure and assembly or welding.

AEROSPACE TECHNOLOGY/AEROSPACE FUNDAMENTALS

Short Term Certificate

Program Code: CTS.ADM.ARS.FUN CIP CODE: 15.0613

AEROSPACE FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Print Reading	3
ARS 101 Fundamentals of Aerospace Manufacturing.....	3
ARS 151 Welding Principles/Theory/Symbols.....	3
ARS 176 Electrical/Electronic Assembly.....	3
ARS 178 Mechanical Assembly & Tube Welding.....	3
ARS 280 Surface Preparation & Coatings	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3

TOTAL24

AEROSPACE TECHNOLOGY/AEROSPACE FUNDAMENTALS

Long Term Certificate

Program Code: CTL.ADM.ARS.FUN CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
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SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS Requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

AEROSPACE FUNDAMENTAL COURSE REQUIREMENTS:

MTT 121 Print Reading	3
ARS 101 Fundamentals of Aerospace Manufacturing.....	3
ARS 151 Welding Principles/Theory/Symbols.....	3
ARS 176 Electrical/Electronic Assembly.....	3
ARS 178 Mechanical Assembly & Tube Welding.....	3
ARS 280 Surface Preparation & Coatings	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3

TOTAL57

AEROSPACE TECHNOLOGY/WELDING

Short Term Certificate

Program Code: CTS.ADM.ARS.WDT CIP CODE: 15.0613

AEROSPACE/WELDING COURSE REQUIREMENTS:

ARS 151 Welding Principles/Theory/Symbols.....	3
ARS 153 Gas Tungsten Arc & Plasma Arc Welding.....	3
ARS 251 Specialized Welding Processes	3
ARS 253 Welding Certification Preparation	3

TOTAL12

AEROSPACE TECHNOLOGY/WELDING

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ARS.WDT CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

Programs of Study

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

AEROSPACE FUNDAMENTAL COURSE REQUIREMENTS:

MTT 121 Print Reading	3
ARS 101 Fundamentals of Aerospace Manufacturing	3
ARS 151 Welding Principles/Theory/Symbols	3
ARS 176 Electrical/Electronic Assembly	3
ARS 178 Mechanical Assembly & Tube Welding	3
ARS 280 Surface Preparation & Coatings	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3

AEROSPACE/WELDING COURSE REQUIREMENTS:

ARS 153 Gas Tungsten Arc & Plasma Arc Welding	3
ARS 251 Specialized Welding Processes	3
ARS 253 Welding Certification Preparation	3

TOTAL76

AEROSPACE TECHNOLOGY/STRUCTURES & ASSEMBLY

Short Term Certificate

Program Code: CTS.ADM.ARS.STR CIP CODE: 15.0613

AEROSPACE/STRUCTURES & ASSEMBLY COURSE REQUIREMENTS:

ARS 276 Instrumentation Attachments & Adhesive Bonding Procedures	3
ARS 278 Composite Materials Assembly	3
ARS 284 Specialized Coating Processes	3

TOTAL9

AEROSPACE TECHNOLOGY/STRUCTURES & ASSEMBLY

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ARS.STR CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

AEROSPACE FUNDAMENTAL COURSE REQUIREMENTS:

MTT 121 Print Reading	3
ARS 101 Fundamentals of Aerospace Manufacturing	3
ARS 151 Welding Principles/Theory/Symbols	3
ARS 176 Electrical/Electronic Assembly	3
ARS 178 Mechanical Assembly & Tube Welding	3
ARS 280 Surface Preparation & Coatings	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3

AEROSPACE/STRUCTURES & ASSEMBLIES COURSE REQUIREMENTS:

ARS 276 Instrumentation Attachments & Adhesive Bonding Procedures	3
ARS 278 Composite Materials Assembly	3
ARS 284 Specialized Coating Processes	3

TOTAL76

AIR CONDITIONING & REFRIGERATION

**With Concentration in Advanced ACR OR,
Indoor Air Quality, OR System Design, OR ACR Commercial, OR
ACR Business, OR ACR Controls**

The purpose of this program of study is to train the student to become an air conditioning and refrigeration technician. The student in the program learns to install and repair air conditioning and refrigeration equipment in office buildings, factories, homes, food stores, restaurants, theaters, and other establishments. The practical experiences provide proficiency in cutting pipe and repair and maintenance of refrigeration and air conditioning equipment along with load and duct design.

AIR CONDITIONING AND REFRIGERATION/ ACR FUNDAMENTALS

Short Term Certificate

Program Code: CTS.ADM.ACR.FUN CIP CODE: 15.0613

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems	3
ACR 121 Principles of Electricity for HVACR	3
ACR 122 HVACR Electrical Circuits	3

TOTAL15

**AIR CONDITIONING AND REFRIGERATION/
ACR FUNDAMENTALS**

Long Term Certificate

Program Code: CTL.ADM.ACR.FUN

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

**AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE
REQUIREMENTS:**

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVACR.....	3
ACR 122 HVACR Electrical Circuits	3

TOTAL48

AIR CONDITIONING AND REFRIGERATION/ADVANCED ACR

Short Term Certificate

Program Code: CTS.ADM.ACR.ADV

CIP CODE: 15.0613

ADVANCED ACR COURSE REQUIREMENTS:

ACR 123 HVACR Electrical Components	3
ACR 132 Residential Air Conditioning	3
ACR 147 Refrigeration Transition & Recovery	3
ACR 148 Heat Pump Systems I.....	3
ACR 149 Heat Pump Systems II.....	3
ACR 205 System Sizing & Air Distribution	3

TOTAL18

AIR CONDITIONING AND REFRIGERATION/ADVANCED ACR

Long Term Certificate

Program Code: CTL.ADM.ACR.ADV

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

**AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE
REQUIREMENTS:**

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits	3

ADVANCED ACR COURSE REQUIREMENTS:

ACR 132 Residential Air Conditioning	3
ACR 147 Refrigeration Transition & Recovery	3
ACR 148 Heat Pump Systems I.....	3
ACR 149 Heat Pump Systems II.....	3
ACR 205 System Sizing & Air Distribution	3

TOTAL60

AIR CONDITIONING & REFRIGERATION/ADVANCED ACR

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.ACR.ADV

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Electives	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

**AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE
REQUIREMENTS:**

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVACR.....	3
ACR 122 HVACR Electrical Circuits	3

Programs of Study

ADVANCED ACR COURSE REQUIREMENTS:

ACR 123 HVACR Electrical Components	3
ACR 132 Residential Air Conditioning	3
ACR 147 Refrigeration Transition & Recovery	3
ACR 148 Heat Pump Systems I.....	3
ACR 149 Heat Pump Systems II.....	3
ACR 205 System Sizing & Air Distribution	3

TOTAL76

AIR CONDITIONING AND REFRIGERATION/INDOOR AIR QUALITY

Short Term Certificate

Program Code: CTS.ADM.ACR.IND CIP CODE: 15.0613

ACR-INDOOR AIR QUALITY COURSE REQUIREMENTS:

ACR 130 Computer Aided HVAC Troubleshooting.....	1
ACR 135 Mechanical/Gas Safety Codes.....	3
ACR 138 Customer Relations in HVAC	3
ACR 181 Special Topics in ACR (Mold Testing & Remediation).....	3
PHS 120 Environmental Science	4
BIO 103 Principles of Biology.....	3

TOTAL17

AIR CONDITIONING AND REFRIGERATION/INDOOR AIR QUALITY

Long Term Certificate

Program Code: CTL.ADM.ACR.IND CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
PHS 120 Environmental Science	4
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits	3

ACR-INDOOR AIR QUALITY COURSE REQUIREMENTS:

ACR 130 Computer Aided HVAC Troubleshooting.....	1
ACR 135 Mechanical/Gas Safety Codes.....	3
ACR 181 Special Topics in ACR (Mold Testing & Remediation).....	3
BIO 103 Principles of Biology.....	3

TOTAL59

AIR CONDITIONING & REFRIGERATION/ INDOOR AIR QUALITY

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ACR.IND

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Electives	3
PHS 120 Environmental Science	4
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVACR	3
ACR 122 HVACR Electrical Circuits	3

ACR-INDOOR AIR QUALITY COURSE REQUIREMENTS:

ACR 130 Computer Aided HVAC Troubleshooting.....	1
ACR 135 Mechanical/Gas Safety Codes.....	3
ACR 138 Customer Relations in HVAC	3
ACR 181 Special Topics in ACR (Mold Testing & Remediation).....	3
BIO 103 Principles of Biology.....	3

TOTAL72

AIR CONDITIONING AND REFRIGERATION/SYSTEM DESIGN

Short Term Certificate

Program Code: CTS.ADM.ACR.SYS

CIP CODE: 15.0613

ACR-SYSTEM DESIGN COURSE REQUIREMENTS:

ACR 128 Heat Load Calculations.....	3
ACR 135 Mechanical Gas Safety Codes.....	3
ACR 144 Basic Drawing & Blueprint Reading in HVAC.....	3
ACR 151 Duct Design & Fabrication.....	6
ACR 205 System Sizing & Air Distribution	3

TOTAL18

AIR CONDITIONING AND REFRIGERATION/SYSTEM DESIGN

Long Term Certificate

Program Code: CTL.ADM.ACR.SYS **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits	3

ACR-SYSTEM DESIGN COURSE REQUIREMENTS:

ACR 135 Mechanical Gas Safety Codes.....	3
ACR 144 Basic Drawing & Blueprint Reading in HVAC.....	3
ACR 151 Duct Design & Fabrication	6
ACR 205 System Sizing & Air Distribution	3

TOTAL60

AIR CONDITIONING & REFRIGERATION/SYSTEM DESIGN

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.ACR.SYS **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKQ 107/ORI 101 Work Skill Preparation/Orientation.....	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3

*CIS 146 Microcomputer Applications.....3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVAC	3
ACR 122 HVACR Electrical Circuits	3

ACR-SYSTEM DESIGN COURSE REQUIREMENTS:

ACR 128 Heat Load Calculations	3
ACR 135 Mechanical Gas Safety Codes.....	3
ACR 144 Basic Drawing & Blueprint Reading in HVAC.....	3
ACR 151 Duct Design & Fabrication.....	6
ACR 205 System Sizing & Air Distribution	3

TOTAL76

AIR CONDITIONING AND REFRIGERATION/COMMERCIAL

Short Term Certificate

Program Code: CTS.ADM.ACR.COM **CIP CODE:** 15.0613

ACR-COMMERCIAL COURSE REQUIREMENTS:

ACR 126 Commercial Heating Systems.....	3
ACR 141 Environmental Systems.....	4
ACR 203 Commercial Refrigeration.....	3
ACR 209 Commercial Air Conditioning Systems	3
ELT 118 Commercial/Industrial Wiring.....	3

TOTAL16

AIR CONDITIONING AND REFRIGERATION/COMMERCIAL

Long Term Certificate

Program Code: CTL.ADM.ACR.COM **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits	3

Programs of Study

ACR-COMMERCIAL COURSE REQUIREMENTS:

ACR 126 Commercial Heating Systems.....	3
ACR 141 Environmental Systems.....	4
ACR 203 Commercial Refrigeration.....	3
ACR 209 Commercial Air Conditioning Systems.....	3

TOTAL58

AIR CONDITIONING & REFRIGERATION/COMMERCIAL

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ACR.COM CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS Requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVAC	3
ACR 122 HVACR Electrical Circuits	3

ACR-COMMERCIAL COURSES REQUIREMENTS

ACR 126 Commercial Heating Systems.....	3
ACR 141 Environmental Systems.....	4
ACR 203 Commercial Refrigeration.....	3
ACR 209 Commercial Air Conditioning Systems.....	3
ELT 118 Commercial/Industrial Wiring.....	3

TOTAL74

AIR CONDITIONING AND REFRIGERATION/BUSINESS

Short Term Certificate

Program Code: CTS.ADM.ACR.BUS CIP CODE: 15.0613

ACR-BUSINESS COURSE REQUIREMENTS:

ACR 112 HVAC Service Procedures	3
ACR 123 HVACR Electrical Components	3
ACR 200 Review for Contractors.....	3
ACR 138 Customer Relations in HVAC	3

BUS 100 Introduction to Business	3
BUS 279 Small Business Management	3

TOTAL18

AIR CONDITIONING AND REFRIGERATION/BUSINESS

Long Term Certificate

Program Code: CTL.ADM.ACR.BUS

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits	3

ACR-BUSINESS COURSE REQUIREMENTS:

ACR 112 HVAC Service Procedures	3
ACR 200 Review for Contractors.....	3
ACR 138 Customer Relations in HVAC	3
BUS 100 Introduction to Business	3
BUS 279 Small Business Management	3

TOTAL60

AIR CONDITIONING & REFRIGERATION/BUSINESS

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ACR.BUS

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
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ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVAC.....	3
ACR 122 HVACR Electrical Circuits.....	3

ACR-BUSINESS COURSE REQUIREMENTS:

ACR 112 HVAC Service Procedures.....	3
ACR 123 HVACR Electrical Components.....	3
ACR 200 Review for Contractors.....	3
ACR 138 Customer Relations in HVAC.....	3
BUS 100 Introduction to Business.....	3
BUS 279 Small Business Management.....	3

TOTAL.....76

AIR CONDITIONING AND REFRIGERATION/CONTROLS

Short Term Certificate

Program Code: CTS.ADM.ACR.CON CIP CODE: 15.0613

ACR-CONTROLS COURSE REQUIREMENTS:

ACR 123 HVACR Electrical Components.....	3
ACR 130 Computer Assisted HVAC Troubleshooting.....	3
ACR 147 Refrigeration Transition & Recovery.....	3
ACR 210 Troubleshooting HVACR Systems.....	3
ELT 209 Motor Controls I.....	3
ELT 231 Programmable Controls I.....	3

TOTAL.....18

AIR CONDITIONING AND REFRIGERATION/CONTROLS

Long Term Certificate

Program Code: CTL.ADM.ACR.CON CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition.....	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective.....	3
*CIS Requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety.....	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3

ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 122 HVACR Electrical Circuits.....	3

ACR-CONTROLS COURSE REQUIREMENTS:

ACR 123 HVACR Electrical Components.....	3
ACR 130 Computer Assisted HVAC Troubleshooting.....	3
ACR 147 Refrigeration Transition & Recovery.....	3
ACR 210 Troubleshooting HVACR Systems.....	3
ELT 231 Programmable Controls I.....	3

TOTAL.....60

AIR CONDITIONING & REFRIGERATION/CONTROLS

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.ACR.CON CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition.....	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective.....	3
Social Science Elective.....	3
Natural Science Elective.....	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety.....	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

AIR CONDITIONING & REFRIGERATION FUNDAMENTALS COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 121 Principles of Electricity for HVAC.....	3
ACR 122 HVACR Electrical Circuits.....	3

ACR-CONTROLS COURSE REQUIREMENTS:

ACR 130 Computer Assisted HVAC Troubleshooting.....	1
ACR 210 Troubleshooting HVACR Systems.....	3
ELT 209 Motor Controls I.....	3
ELT 231 Programmable Controls I.....	3
ACR 123 HVACR Electrical Components.....	3
ACR 147 Refrigeration Transition & Recovery.....	3

TOTAL.....74

Programs of Study

AUTOMATION / ROBOTICS

The Associate of Applied Science Degree in Applied Technology with a Major in Automation/Robotics will prepare graduates for entry-level employment in industrial automation. Concepts covered in the major include electronics for electricians; programmable logic controllers; digital fundamentals; interfacing microcomputers to electro-mechanical devices; and flexible manufacturing cells.

AUTOMATION/ROBOTICS BASIC ELECTRICITY

Short Term Certificate

Program Code: CTS.ADM.AUT.BAS CIP CODE: 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I	3

TOTAL12

AUTOMATION/ROBOTICS BASIC ELECTRICITY

Long Term Certificate

Program Code: CTL.ADM.AUT.BAS CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I	3

TOTAL45

AUTOMATION/ROBOTICS AUTOMATION FUNDAMENTALS

Short Term Certificate

Program Code: CTS.ADM.AUT.FUN CIP CODE: 15.0613

AUTOMATION FUNDAMENTALS COURSE REQUIREMENTS:

ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I	3
ELT 232 Programmable Controls II	3
ILT 163 Digital Fundamentals	3

TOTAL12

AUTOMATION/ROBOTICS AUTOMATION FUNDAMENTALS

Long Term Certificate

Program Code: CTL.ADM.AUT.FUN CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I	3

AUTOMATION FUNDAMENTALS COURSE REQUIREMENTS:

ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I	3
ELT 232 Programmable Controls II	3
ILT 163 Digital Fundamentals	3

TOTAL57

AUTOMATION/ROBOTICS Short Term Certificate

Program Code: CTS.ADM.AUT.ROB CIP CODE: 15.0613

AUTOMATION/ROBOTICS COURSE REQUIREMENTS:

ILT 216 Industrial Robotics	3
ILT 217 Industrial Robotics Lab	2

ADM 250 Introduction to Flexible Manufacturing Cells	4
TOTAL	9

AUTOMATION/ROBOTICS

Long Term Certificate

Program Code: CTL.ADM.AUT.ROB

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

AUTOMATION FUNDAMENTALS COURSE REQUIREMENTS:

ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I	3
ELT 232 Programmable Controls II	3

AUTOMATION/ROBOTICS COURSE REQUIREMENTS:

ILT 216 Industrial Robotics	3
ILT 217 Industrial Robotics Lab	2

TOTAL	59
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AUTOMATION/ROBOTICS

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.AUT.ROB

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKQ 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS Requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
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ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

AUTOMATION FUNDAMENTALS COURSE REQUIREMENTS:

ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I	3
ELT 232 Programmable Controls II	3
ILT 163 Digital Fundamentals	3

AUTOMATION/ROBOTICS COURSE REQUIREMENTS:

ILT 216 Industrial Robotics	3
ILT 217 Industrial Robotics Lab	2
ADM 250 Introduction to Flexible Manufacturing Cells	4

TOTAL	76
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DESIGN DRAFTING TECHNOLOGY

With Concentration in Mechanical or Architectural Drafting

The Design Drafting Technology program prepares students for employment as entry level drafters. The program is totally Computer Assisted Drafting (CAD). Students will receive training in fundamentals of CAD drafting with introductory courses in the fields of mechanical and architectural drafting.

DESIGN DRAFTING TECHNOLOGY/MECHANICAL

Short Term Certificate

Program Code: CTS.ADM.DDT.MEC

CIP CODE: 15.0613

MECHANICAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD	3
DDT 111 Fundamentals of Drafting	3
DDT 122 Advanced Technical Drafting	3
DDT 124 Basic Technical Drafting	3
DDT 127 Intermediate CAD	3
DDT 128 Intermediate Technical Drafting	3
DDT 131 Basic Machine Drafting	3
DDT 233 Solids Modeling	3

TOTAL	24
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Programs of Study

DESIGN DRAFTING TECHNOLOGY/MECHANICAL

Long Term Certificate

Program Code: CTL.ADM.DDT.MEC CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MECHANICAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD.....	3
DDT 111 Fundamentals of Drafting	3
DDT 122 Advanced Technical Drafting	3
DDT 124 Basic Technical Drafting	3
DDT 127 Intermediate CAD	3
DDT 128 Intermediate Technical Drafting.....	3
DDT 131 Basic Machine Drafting.....	3
DDT 233 Solids Modeling.....	3

TOTAL57

DESIGN DRAFTING TECHNOLOGY/MECHANICAL

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.DDT.MEC CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MECHANICAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD.....	3
DDT 111 Fundamentals of Drafting	3
DDT 122 Advanced Technical Drafting	3
DDT 124 Basic Technical Drafting.....	3
DDT 127 Intermediate CAD	3
DDT 128 Intermediate Technical Drafting.....	3
DDT 131 Basic Machine Drafting.....	3
DDT 233 Solids Modeling.....	3

TOTAL67

DESIGN DRAFTING TECHNOLOGY/ARCHITECTURAL

Short Term Certificate

Program Code: CTS.ADM.DDT.ARC CIP CODE: 15.0613

ARCHITECTURAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD.....	3
DDT 111 Fundamentals of Drafting	3
DDT 127 Intermediate CAD	3
DDT 132 Architectural Drafting	3
DDT 150 Residential Drawing & Design	3
DDT 155 Residential Drawing.....	3
DDT 213 Civil Drafting.....	3
DDT 225 Structural Drafting.....	3

TOTAL24

DESIGN DRAFTING TECHNOLOGY/ARCHITECTURAL

Long Term Certificate

Program Code: CTL.ADM.DDT.ARC CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

ARCHITECTURAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD.....	3
DDT 111 Fundamentals of Drafting	3
DDT 127 Intermediate CAD	3
DDT 132 Architectural Drafting	3
DDT 150 Residential Drawing & Design	3
DDT 155 Residential Drawing.....	3
DDT 213 Civil Drafting.....	3
DDT 225 Structural Drafting.....	3

TOTAL57

DESIGN DRAFTING TECHNOLOGY/ARCHITECTURAL

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.DDT.ARC

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

ARCHITECTURAL DRAFTING COURSE REQUIREMENTS:

DDT 104 Introduction to CAD	3
DDT 111 Fundamentals of Drafting	3
DDT 127 Intermediate CAD	3
DDT 132 Architectural Drafting	3
DDT 150 Residential Drawing & Design	3
DDT 155 Residential Drawing	3
DDT 213 Civil Drafting	3
DDT 225 Structural Drafting	3

TOTAL67

ELECTRICAL TECHNOLOGY

The Associate of Applied Science Degree in Applied Technology with a major in Electrical Technology will prepare graduates to be an entry-level electrician/electrician's helper. Concepts covered in the major include AC/DC theory, wiring methods, conduit bending, NEC Codes, fundamentals of programmable logic controllers, and distribution systems.

**ELECTRICAL TECHNOLOGY
BASIC ELECTRICITY**

Short Term Certificate

Program Code: CTS.ADM.ELT.BAS

CIP CODE: 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

TOTAL12

**ELECTRICAL TECHNOLOGY
BASIC ELECTRICITY**

Long Term Certificate

Program Code: CTL.ADM.ELT.BAS

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

TOTAL45

**ELECTRICAL TECHNOLOGY
ENTRY LEVEL ELECTRICIAN**

Short Term Certificate

Program Code: CTS.ADM.ELT.ENT

CIP CODE: 15.0613

ENTRY LEVEL ELECTRICIAN COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 110 Wiring Methods	3
ELT 231 Programmable Controls I	3
ELT 241 National Electric Code	3

TOTAL15

**ELECTRICAL TECHNOLOGY
ENTRY LEVEL ELECTRICIAN**

Long Term Certificate

Program Code: CTL.ADM.ELT.ENT

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

Programs of Study

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

ENTRY LEVEL ELECTRICIAN COURSE REQUIREMENTS:

ELT 110 Wiring Methods	3
ELT 231 Programmable Controls I	3
ELT 241 National Electric Code	3

TOTAL54

ELECTRICAL TECHNOLOGY RESIDENTIAL/COMMERCIAL/INDUSTRIAL

Short Term Certificate

Program Code: CTS.ADM.ELT.RES **CIP CODE:** 15.0613

RESIDENTIAL/COMMERCIAL/INDUSTRIAL COURSE REQUIREMENTS:

ELT 104 Distribution Systems	3
ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 110 Wiring Methods	3
ELT 116 Residential Wiring OR ELT 118 Commercial/Industrial Wiring	3
ELT 244 Conduit Bending & Installation	3

TOTAL18

ELECTRICAL TECHNOLOGY RESIDENTIAL/COMMERCIAL/INDUSTRIAL

Long Term Certificate

Program Code: CTL.ADM.ELT.RES **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

ENTRY LEVEL ELECTRICIAN COURSE REQUIREMENTS:

ELT 110 Wiring Methods	3
ELT 231 Programmable Controls I	3
ELT 241 National Electric Code	3

RESIDENTIAL/COMMERCIAL/INDUSTRIAL COURSE REQUIREMENTS:

ELT 104 Distribution Systems	3
ELT 116 Residential Wiring OR ELT 118 Commercial/Industrial Wiring	3

TOTAL60

ELECTRICAL TECHNOLOGY

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.ELT

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

ENTRY LEVEL ELECTRICIAN COURSE REQUIREMENTS:

ELT 110 Wiring Methods	3
ELT 231 Programmable Controls I	3
ELT 241 National Electric Code	3

RESIDENTIAL/COMMERCIAL/INDUSTRIAL COURSE REQUIREMENTS:

ELT 104 Distribution Systems	3
ELT 110 Wiring Methods	3
ELT 116 Residential Wiring OR ELT 118 Commercial/Industrial Wiring	3

ELT 244 Conduit Bending & Installation.....	3
TOTAL	76

INDUSTRIAL MAINTENANCE/MECHANICAL

The Associate of Applied Science Degree in Applied Technology with a major in Industrial Maintenance/Mechanical will prepare graduates for employment as entry level industrial mechanics and millwrights. Concepts covered in this program include pumps, motors, motor controls, mechanical drives, preventive/predictive maintenance concepts, hydraulics, pneumatics, prints and mechanical drawings, and related safety.

INDUSTRIAL MAINTENANCE/MECHANICAL BASIC ELECTRICITY

Short Term Certificate

Program Code: CTS.ADM.IMTM.BA CIP CODE: 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

TOTAL12

INDUSTRIAL MAINTENANCE/MECHANICAL BASIC ELECTRICITY

Long Term Certificate

Program Code: CTL.ADM.IMTM.BA CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

TOTAL45

Programs of Study

INDUSTRIAL MAINTENANCE/MECHANICAL ELECTRO/MECHANICAL

Short Term Certificate

Program Code: CTS.ADM.IMTM.EL

CIP CODE: 15.0613

ELECTRO/MECHANICAL COURSE REQUIREMENTS:

ELT 118 Commercial/Industrial Wiring.....	3
INT 117 Principles of Industrial Mechanics	3
INT 126 Preventive/Predictive Maintenance	3
INT 127 Principles of Pumps & Piping.....	3
ARS 151 Welding Principles, Theory and Symbols	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3

TOTAL21

INDUSTRIAL MAINTENANCE/MECHANICAL ELECTRO/MECHANICAL

Long Term Certificate

Program Code: CTL.ADM.IMTM.EL

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

ELECTRO/MECHANICAL COURSE REQUIREMENTS:

ELT 118 Commercial/Industrial Wiring.....	3
INT 117 Principles of Industrial Mechanics	3
INT 126 Preventive/Predictive Maintenance	3
INT 127 Principles of Pumps & Piping.....	3
ARS 151 Welding Principles, Theory and Symbols	3

TOTAL60

INDUSTRIAL MAINTENANCE/MECHANICAL

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.IMTM

CIP CODE: 15.0613

Programs of Study

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

ELECTRO/MECHANICAL COURSE REQUIREMENTS:

ELT 118 Commercial/Industrial Wiring	3
INT 117 Principles of Industrial Mechanics	3
INT 126 Preventive/Predictive Maintenance	3
INT 127 Principles of Pumps & Piping	3
ARS 151 Welding Principles, Theory and Symbols	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3

TOTAL76

INDUSTRIAL MAINTENANCE/ELECTRICAL

The Associate of Applied Science Degree in Applied Technology with a major in Industrial Maintenance/Electrical will prepare graduates for employment as entry level industrial electricians. Concepts covered in the major include basic electrical concepts, motor controls, programmable logic controllers, and basic instrumentation principles.

INDUSTRIAL MAINTENANCE/ELECTRICAL BASIC ELECTRICITY

Short Term Certificate

Program Code: CTS.ADM.IMTE.BA **CIP CODE:** 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

TOTAL12

INDUSTRIAL MAINTENANCE/ELECTRICAL BASIC ELECTRICITY

Long Term Certificate

Program Code: CTL.ADM.IMTE.BA

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

TOTAL45

INDUSTRIAL MAINTENANCE/ELECTRICAL ELECTRO/ELECTRONICS

Short Term Certificate

Program Code: CTS.ADM.IMTE.EL

CIP CODE: 15.0613

ELECTRO/ELECTRONICS COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 118 Commercial/Industrial Wiring	3
ELT 212 Motor Controls II	3
ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I	3
ELT 232 Programmable Controls II	3
ILT 163 Digital Fundamentals	3
ILT 214 Control and Troubleshooting Flow, Level, Temperature, Pressure and Level Processes	3

TOTAL27

INDUSTRIAL MAINTENANCE/ELECTRICAL ELECTRO/ELECTRONICS

Long Term Certificate

Program Code: CTL.ADM.IMTE.EL

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

ELECTRO/ELECTRONICS COURSE REQUIREMENTS:

ELT 118 Commercial/Industrial Wiring.....	3
ELT 212 Motor Controls II.....	3
ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I.....	3
ELT 232 Programmable Controls II.....	3

TOTAL60

INDUSTRIAL MAINTENANCE/ELECTRICAL

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.IMTE CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

ELECTRO/ELECTRONICS COURSE REQUIREMENTS:

ELT 118 Commercial/Industrial Wiring.....	3
ELT 212 Motor Controls II.....	3
ELT 221 Electronics for Electricians	3
ELT 231 Programmable Controls I.....	3

ELT 232 Programmable Controls II.....	3
ILT 163 Digital Fundamentals.....	3
ILT 214 Control and Troubleshooting Flow, Level, Temperature, Pressure and Level Processes.....	3
TOTAL	76

**INDUSTRIAL MAINTENANCE/
AIR CONDITIONING & REFRIGERATION**

The Associate of Applied Science Degree in Applied Technology with a major in Industrial Maintenance/Air Conditioning & Refrigeration will prepare graduates for employment as entry level HVAC technicians. Concepts covered in the major include fundamentals of electric and gas heating systems, refrigerant transition and recovery, commercial/industrial wiring, and NEC codes.

**INDUSTRIAL MAINTENANCE/
AIR CONDITIONING & REFRIGERATION
BASIC ELECTRICITY**

Short Term Certificate

Program Code: CTS.ADM.IMTA.BA CIP CODE: 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

TOTAL12

**INDUSTRIAL MAINTENANCE/
AIR CONDITIONING & REFRIGERATION
BASIC ELECTRICITY**

Long Term Certificate

Program Code: CTL.ADM.IMTA.BA CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3

Programs of Study

ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3
TOTAL	45

INDUSTRIAL MAINTENANCE/ AIR CONDITIONING & REFRIGERATION HVAC

Short Term Certificate

Program Code: CTS.ADM.IMTA.HV CIP CODE: 15.0613

HVAC COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 147 Refrigerant Transition & Recovery Theory.....	3
ACR 205 System Sizing & Air Distribution.....	3
ELT 118 Commercial/Industrial Wiring.....	3
ELT 241 National Electrical Code.....	3
TOTAL	21

INDUSTRIAL MAINTENANCE/ AIR CONDITIONING & REFRIGERATION HVAC

Long Term Certificate

Program Code: CTL.ADM.IMTA.HV CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition.....	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective.....	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety.....	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals.....	3
ELT 109 AC Fundamentals.....	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

HVAC COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 147 Refrigerant Transition & Recovery Theory.....	3
ELT 118 Commercial/Industrial Wiring.....	3

TOTAL60

INDUSTRIAL MAINTENANCE/ AIR CONDITIONING & REFRIGERATION

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.IMTA

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition.....	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective.....	3
Social Science Elective.....	3
Natural Science Elective.....	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety.....	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals.....	3
ELT 109 AC Fundamentals.....	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

HVAC COURSE REQUIREMENTS:

ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems.....	3
ACR 120 Fundamentals of Electric Heating Systems.....	3
ACR 147 Refrigerant Transition & Recovery Theory.....	3
ACR 205 System Sizing & Air Distribution.....	3
ELT 118 Commercial/Industrial Wiring.....	3
ELT 241 National Electrical Code.....	3

TOTAL76

INDUSTRIAL MAINTENANCE/INSTRUMENTATION

The Associate of Applied Science Degree in Applied Technology with a major in Industrial Maintenance/Instrumentation will prepare graduates for employment as entry level instrumentation technicians. Concepts covered in the major include electronics for electricians; instrumentation circuits and systems; transducers; detectors; actuators; control devices; and fundamentals of pressure, force, weight, motion, liquid level, and fluid flow.

**INDUSTRIAL MAINTENANCE/INSTRUMENTATION
BASIC ELECTRICITY**

Short Term Certificate

Program Code: CTS.ADM.IMTI.BA CIP CODE: 15.0613

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

TOTAL12

**INDUSTRIAL MAINTENANCE/INSTRUMENTATION
BASIC ELECTRICITY**

Long Term Certificate

Program Code: CTL.ADM.IMTI.BA CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS Requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines.....	3
ELT 209 Motor Controls I.....	3

TOTAL45

INDUSTRIAL MAINTENANCE/INSTRUMENTATION

Short Term Certificate

Program Code: CTS.ADM.IMTI.IN CIP CODE: 15.0613

INSTRUMENTATION COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ILT 103 Introduction to Instrumentation Technology	3
ILT 104 Industrial Instrumentation.....	3
ILT 105 Industrial Instrumentation Lab	2
ILT 108 Introduction to Instrumentation & Process Control	3
ILT 216 Industrial Robotics.....	3
ILT 217 Industrial Robotics Lab	2
ELT 221 Electronics for Electricians	3

TOTAL25

INDUSTRIAL MAINTENANCE/INSTRUMENTATION

Long Term Certificate

Program Code: CTL.ADM.IMTI.IN CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 209 Motor Controls I.....	3

INSTRUMENTATION COURSE REQUIREMENTS:

ILT 103 Introduction to Instrumentation Technology	3
ILT 104 Industrial Instrumentation.....	3
ILT 105 Industrial Instrumentation Lab	2
ILT 108 Introduction to Instrumentation & Process Control	3
ILT 216 Industrial Robotics.....	3
ILT 217 Industrial Robotics Lab	2

TOTAL58

INDUSTRIAL MAINTENANCE/INSTRUMENTATION

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.IMTI CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3

Programs of Study

ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

BASIC ELECTRICITY COURSE REQUIREMENTS:

ELT 108 DC Fundamentals	3
ELT 109 AC Fundamentals	3
ELT 117 AC/DC Machines	3
ELT 209 Motor Controls I	3

INSTRUMENTATION COURSE REQUIREMENTS:

ILT 103 Introduction to Instrumentation Technology	3
ILT 104 Industrial Instrumentation	3
ILT 105 Industrial Instrumentation Lab	2
ILT 108 Introduction to Instrumentation & Process Control	3
ILT 216 Industrial Robotics	3
ILT 217 Industrial Robotics Lab	2
ELT 221 Electronics for Electricians	3

TOTAL	74
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MACHINE TOOL TECHNOLOGY

With Concentration in Manual Machining, OR Precision Inspection, OR CNC Turning, OR CNC Milling, OR CNC CAM, OR CNC EDM

The Machine Tool Technology program is a study of the process of using machine tools to manufacture useful products and parts. Students will acquire specialized knowledge and skills in many areas including mathematics, print reading, physics, measuring instruments, cutting tools, and machine tools. Graduates will have the ability to turn rough material into precision finished products and parts.

MACHINE TOOL TECHNOLOGY/MACHINING FUNDAMENTALS

Short Term Certificate

Program Code: CTS.ADM.MTT.FUN CIP CODE: 15.0613

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II	3
MTT 150 Introduction to Machine Shop II Lab	3

TOTAL	15
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MACHINE TOOL TECHNOLOGY/MACHINING FUNDAMENTALS

Long Term Certificate

Program Code: CTL.ADM.MTT.FUN CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II	3
MTT 150 Introduction to Machine Shop II Lab	3

TOTAL	48
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MACHINE TOOL TECHNOLOGY/MANUAL MILLING

Short Term Certificate

Program Code: CTS.ADM.MTT.MIL CIP CODE: 15.0613

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
MTT 138 Milling I Lab	3

TOTAL	6
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MACHINE TOOL TECHNOLOGY/MANUAL MILLING

Long Term Certificate

Program Code: CTL.ADM.MTT.MIL CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II	3
MTT 150 Introduction to Machine Shop II Lab	3

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
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MTT 138 Milling I Lab	3
TOTAL	54

MACHINE TOOL TECHNOLOGY/MANUAL TURNING

Short Term Certificate

Program Code: CTS.ADM.MTT.TUR CIP CODE: 15.0613

MANUAL TURNING COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 135 Engine Lathe I Lab	3

TOTAL6

MACHINE TOOL TECHNOLOGY/MANUAL MACHINING

Long Term Certificate

Program Code: CTL.ADM.MTT.TUR CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II	3
MTT 150 Introduction to Machine Shop II Lab	3

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
MTT 138 Milling I Lab	3

MANUAL TURNING COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 135 Engine Lathe I Lab	3

TOTAL60

MACHINE TOOL TECHNOLOGY/PRECISION GRINDING

Short Term Certificate

Program Code: CTS.ADM.MTT.GRI CIP CODE: 15.0613

PRECISION GRINDING COURSE REQUIREMENTS:

MTT 162 Precision Grinding	3
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MTT 163 Precision Grinding Lab	3
TOTAL	6

MACHINE TOOL TECHNOLOGY/MANUAL MACHINING

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.MTT.MAN CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading	3
MTT 147 Introduction to Machine Shop I	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II	3
MTT 150 Introduction to Machine Shop II Lab	3

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
MTT 138 Milling I Lab	3

MANUAL TURNING COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 135 Engine Lathe I Lab	3

PRECISION GRINDING COURSE REQUIREMENTS:

MTT 162 Precision Grinding	3
MTT 163 Precision Grinding Lab	3

TOTAL76

MACHINE TOOL TECHNOLOGY/PRECISION INSPECTION

Short Term Certificate

Program Code: CTS.ADM.MTT.INS CIP CODE: 15.0613

PRECISION INSPECTION COURSE REQUIREMENTS:

MTT 107 Machining Calculations	3
MTT 108 Machinist Handbook Functions I	3
MTT 128 Geometric Dimensioning & Tolerancing	3
MTT 130 Machining Calculations II	3

Programs of Study

MTT 281 Special Topics in Machine Tool Technology.....	3
TOTAL	15

MACHINE TOOL TECHNOLOGY/PRECISION INSPECTION

Long Term Certificate

Program Code: CTL.ADM.MTT.INS CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab	3

PRECISION INSPECTION COURSE REQUIREMENTS:

MTT 107 Machining Calculations	3
MTT 108 Machinist Handbook Functions I	3
MTT 128 Geometric Dimensioning & Tolerancing.....	3
MTT 130 Machining Calculations II	3
MTT 281 Special Topics in Machine Tool Technology.....	3

TOTAL57

MACHINE TOOL TECHNOLOGY/PRECISION INSPECTION

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.MTT.INS CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer	

Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II.....	3
MTT 150 Introduction to Machine Shop II Lab.....	3

PRECISION INSPECTION COURSE REQUIREMENTS:

MTT 107 Machining Calculations	3
MTT 108 Machinist Handbook Functions I	3
MTT 128 Geometric Dimensioning & Tolerancing.....	3
MTT 130 Machining Calculations II	3
MTT 281 Special Topics in Machine Tool Technology.....	3

TOTAL73

MACHINE TOOL TECHNOLOGY/CNC TURNING

Short Term Certificate

Program Code: CTS.ADM.MTT.CTU CIP CODE: 15.0613

CNC TURNING COURSE REQUIREMENTS:

MTT 140 Basic CNC Turning Programming I	3
MTT 212 Advanced CNC Turning	3
MTT 243 CNC Turning Lab I.....	3
MTT 244 CNC Turning Lab II.....	3

TOTAL12

MACHINE TOOL TECHNOLOGY/CNC TURNING

Long Term Certificate

Program Code: CTL.ADM.MTT.CTU CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab	3

MANUAL TURNING COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 135 Engine Lathe I Lab.....	3

CNC TURNING COURSE REQUIREMENTS:

MTT 140 Basic CNC Turning Programming I	3
MTT 212 Advanced CNC Turning	3
MTT 243 CNC Turning Lab I	3
MTT 244 CNC Turning Lab II.....	3

TOTAL60

MACHINE TOOL TECHNOLOGY/CNC TURNING

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.MTT.CTU CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3
MTT 149 Introduction to Machine Shop II.....	3
MTT 150 Introduction to Machine Shop II Lab.....	3

MANUAL TURNING COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 135 Engine Lathe I Lab.....	3

CNC TURNING COURSE REQUIREMENTS:

MTT 140 Basic CNC Turning Programming I	3
MTT 212 Advanced CNC Turning	3
MTT 243 CNC Turning Lab I.....	3
MTT 244 CNC Turning Lab II.....	3

TOTAL76

MACHINE TOOL TECHNOLOGY/CNC MILLING

Short Term Certificate

Program Code: CTS.ADM.MTT.CMI CIP CODE: 15.0613

CNC MILLING COURSE REQUIREMENTS:

MTT 141 Basic CNC Milling Programming I	3
MTT 213 Advanced CNC Milling.....	3
MTT 241 CNC Milling Lab I	3
MTT 242 CNC Milling Lab II	3

TOTAL12

MACHINE TOOL TECHNOLOGY/CNC MILLING

Long Term Certificate

Program Code: CTL.ADM.MTT.CMI CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3

*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
MTT 138 Milling I Lab	3

CNC MILLING COURSE REQUIREMENTS:

MTT 141 Basic CNC Milling Programming I	3
MTT 213 Advanced CNC Milling.....	3
MTT 241 CNC Milling Lab I	3
MTT 242 CNC Milling Lab II	3

TOTAL60

MACHINE TOOL TECHNOLOGY/CNC MILLING

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.MTT.CMI CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
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Programs of Study

MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3
MTT 149 Introduction to Machine Shop II.....	3
MTT 150 Introduction to Machine Shop II Lab.....	3

MANUAL MILLING COURSE REQUIREMENTS:

MTT 137 Milling I	3
MTT 138 Milling I Lab	3

CNC MILLING COURSE REQUIREMENTS:

MTT 141 Basic CNC Milling Programming I.....	3
MTT 213 Advanced CNC Milling	3
MTT 241 CNC Milling Lab I	3
MTT 242 CNC Milling Lab II	3

TOTAL76

MACHINE TOOL TECHNOLOGY/ MANUAL MACHINING CONCEPTS

Short Term Certificate

Program Code: CTS.ADM.MTT.CON **CIP CODE:** 15.0613

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 137 Milling I	3

TOTAL6

MACHINE TOOL TECHNOLOGY/ MANUAL MACHINING CONCEPTS

Long Term Certificate

Program Code: CTL.ADM.MTT.CON **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab.....	3
MTT 149 Introduction to Machine Shop II.....	3
MTT 150 Introduction to Machine Shop II Lab.....	3

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 137 Milling I	3

TOTAL54

MACHINE TOOL TECHNOLOGY/CNC CAM

Short Term Certificate

Program Code: CTS.ADM.MTT.CAM **CIP CODE:** 15.0613

CNC CAM COURSE REQUIREMENTS:

MTT 109 Orientation to Computer Aided Manufacturing	3
MTT 218 Computer Integrated Machining (CIM).....	3
MTT 219 CNC Graphics: Turning.....	3
MTT 220 CNC Graphics: Milling	3

TOTAL12

MACHINE TOOL TECHNOLOGY/CNC CAM

Long Term Certificate

Program Code: CTL.ADM.MTT.CAM **CIP CODE:** 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS Requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems.....	3
ADM 106 Quality Control Concepts.....	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3

MTT 148 Introduction to Machine Shop I Lab3

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I3
MTT 137 Milling I3

CNC CAM COURSE REQUIREMENTS:

MTT 109 Orientation to Computer Aided Manufacturing3
MTT 218 Computer Integrated Machining (CIM).....3
MTT 219 CNC Graphics: Turning.....3
MTT 220 CNC Graphics: Milling3

TOTAL60

MACHINE TOOL TECHNOLOGY/CNC CAM

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.MTT.CAM CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition3
MTH 103 Introduction to Technical Mathematics.....3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....1
SPH 107 Fundamentals of Public Speaking.....3
Humanities Elective3
Social Science Electives3
Natural Science Elective3
*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety3
ADM 101 Precision Measurement.....3
ADM 102 Computer Aided Design.....3
ADM 103 Introduction to Computer
Integrated Manufacturing/Materials & Processes.....3
ADM 104 Introduction to Thermal/Electrical Principles.....3
ADM 105 Fluid Systems.....3
ADM 106 Quality Control Concepts.....3
*CIS 146 Microcomputer Applications.....3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....3
MTT 147 Introduction to Machine Shop I.....3
MTT 148 Introduction to Machine Shop I Lab.....3
MTT 149 Introduction to Machine Shop II.....3
MTT 150 Introduction to Machine Shop II Lab.....3

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I3
MTT 137 Milling I3

CNC CAM COURSE REQUIREMENTS:

MTT 109 Orientation to Computer Aided Manufacturing3
MTT 218 Computer Integrated Machining (CIM).....3
MTT 219 CNC Graphics: Turning.....3
MTT 220 CNC Graphics: Milling3

TOTAL76

MACHINE TOOL TECHNOLOGY/CNC EDM

Short Term Certificate

Program Code: CTS.ADM.MTT.EDM CIP CODE: 15.0613

CNC EDM COURSE REQUIREMENTS:

MTT 139 Introduction to CNC3
MTT 140 Basic CNC Turning Programming I3
MTT 141 Basic CNC Milling Programming I.....3
MTT 144 Electrical Discharge Machining I3

TOTAL12

MACHINE TOOL TECHNOLOGY/CNC EDM

Long Term Certificate

Program Code: CTL.ADM.MTT.EDM CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition3
SPH 107 Fundamentals of Public Speaking.....3
Natural Science Elective3
*CIS requirement is included in the Applied Technology Core

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety3
ADM 101 Precision Measurement.....3
ADM 102 Computer Aided Design.....3
ADM 103 Introduction to Computer
Integrated Manufacturing/Materials & Processes.....3
ADM 104 Introduction to Thermal/Electrical Principles.....3
ADM 105 Fluid Systems.....3
ADM 106 Quality Control Concepts.....3
*CIS 146 Microcomputer Applications.....3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....3
MTT 147 Introduction to Machine Shop I.....3
MTT 148 Introduction to Machine Shop I Lab.....3

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I3
MTT 137 Milling I3

CNC EDM COURSE REQUIREMENTS:

MTT 139 Introduction to CNC3
MTT 140 Basic CNC Turning Programming I3
MTT 141 Basic CNC Milling Programming I.....3
MTT 144 Electrical Discharge Machining I3

TOTAL60

MACHINE TOOL TECHNOLOGY/CNC EDM

**Associate of Applied Science Degree
Applied Technology**

Program Code: AP.ADM.MTT.EDM CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition3
MTH 103 Introduction to Technical Mathematics.....3
WKO 107/ORI 101 Work Skill Preparation/Orientation.....1

Programs of Study

SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

MACHINING FUNDAMENTALS COURSE REQUIREMENTS:

MTT 121 Blueprint Reading.....	3
MTT 147 Introduction to Machine Shop I.....	3
MTT 148 Introduction to Machine Shop I Lab	3
MTT 149 Introduction to Machine Shop II.....	3
MTT 150 Introduction to Machine Shop II Lab.....	3

MANUAL MACHINING CONCEPTS COURSE REQUIREMENTS:

MTT 134 Engine Lathe I	3
MTT 137 Milling I	3

CNC EDM COURSE REQUIREMENTS:

MTT 139 Introduction to CNC	3
MTT 140 Basic CNC Turning Programming I	3
MTT 141 Basic CNC Milling Programming I	3
MTT 144 Electrical Discharge Machining I	3

TOTAL	76
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PROCESS TECHNOLOGY

This program is designed for individuals seeking employment in the process industry as a Process Technician. The process industry plays a significant role in U. S. businesses and our economy, serving the pharmaceutical, food and beverage, textile, chemical and petroleum processing, power production, plastic, paint, cosmetic, and other sectors.

PROCESS TECHNOLOGY

Short Term Certificate

Program Code: CTS.ADM.PCT

CIP CODE: 15.0613

PROCESS TECHNOLOGY COURSE REQUIREMENTS:

PCT 100 Fundamentals of Process Technology	3
PCT 110 Process Tech I – Equipment	4
PCT 115 Instrumentation I	3
PCT 215 Instrumentation II	4
PCT 220 Process Tech II – Systems	4
PCT 230 Process Tech III – Operations.....	4
PCT 240 Process Troubleshooting	4
Natural Science or Technical Elective	3

TOTAL	29
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PROCESS TECHNOLOGY

Long Term Certificate

Program Code: CTL.ADM.PCT

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
SPH 107 Fundamentals of Public Speaking.....	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

PROCESS TECHNOLOGY COURSE REQUIREMENTS:

PCT 100 Fundamentals of Process Technology	3
PCT 110 Process Tech I – Equipment	4
PCT 115 Instrumentation I	3
PCT 215 Instrumentation II	4
PCT 220 Process Tech II – Systems	4
PCT 230 Process Tech III – Operations.....	4
PCT 240 Process Troubleshooting	4

TOTAL	59
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PROCESS TECHNOLOGY

Associate of Applied Science Degree Applied Technology

Program Code: AP.ADM.PCT

CIP CODE: 15.0613

GENERAL EDUCATION CORE REQUIREMENTS:

ENG 101 English Composition	3
MTH 103 Introduction to Technical Mathematics.....	3
WKO 107/ORI 101 Work Skill Preparation/Orientation	1
SPH 107 Fundamentals of Public Speaking.....	3
Humanities Elective	3
Social Science Elective	3
Natural Science Elective	3
*CIS requirement is included in the Applied Technology Core	

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS:

ADM 100 Industrial Safety	3
ADM 101 Precision Measurement.....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Introduction to Computer Integrated Manufacturing/Materials & Processes.....	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
*CIS 146 Microcomputer Applications.....	3

PROCESS TECHNOLOGY COURSE REQUIREMENTS:

PCT 100 Fundamentals of Process Technology	3
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PCT 110 Process Tech I – Equipment	4
PCT 115 Instrumentation I	3
PCT 215 Instrumentation II	4
PCT 220 Process Tech II – Systems	4
PCT 230 Process Tech III – Operations	4
PCT 240 Process Troubleshooting	4
Natural Science or Technical Elective	3
TOTAL	72

END OF APPLIED TECHNOLOGY PROGRAM OPTIONS

BARBERING

Basic Barbering Certificate

Program Code: CT.BARB

CIP Code: 12.0402

This is a certificate program which prepares students for employment in the profession of barbering. Students must complete both certificates to qualify for a barbering license. This program will provide students with basic knowledge of barbering. Emphasis is placed on safety, sanitation and hygiene and the care and use of barbering tools. Students will gain “hands on” experience in basic barbering skills.

BAR 110 Orientation to Barbering	3
BAR 111 Science of Barbering	3
BAR 112 Bacteriology and Sanitation OR COS 111 Cosmetology Science	3
BAR 113 Barber-Styling Lab	3
BAR 114 Advanced Barber-Styling Lab	3
BAR 120 Properties of Chemistry OR COS 121 Colorimetry	3
BAR 121 Chemical Hair Processing OR COS 123 Cosmetology Salon Practices	3
BAR 122 Hair Coloring Chemistry OR COS 121 Colorimetry	3
BAR 124 Hair Coloring Methodology Lab OR COS 122 Colorimetry Applications	3
TOTAL CREDITS	27

BARBERING

Advanced Barbering Certificate

The advanced certificate in barbering is designed to allow the student to develop knowledge in barber shop management skills and employment skills. Coursework is designed to allow the student to gain advance skills in barbering and hair design and to prepare students to pass the state board license test for barbering.

Program Code: CT.BARB.ADV

CIP Code: 12.0402

BAR 130 Marketing and Business Management OR COS 124 Introduction to Salon Management	3
BAR 131 Structure and Disorders of Nails OR COS 151 Nail Care	3
BAR 132 Hair Styling and Design OR COS 114 Chemical Methodology Lab	3

BAR 133 Hair Styling and Management Lab OR COS 112 Cosmetology Science and Art Lab	3
BAR 140 Practicum	2
BAR 141 Practicum	2
TOTAL CREDITS	16

BUSINESS ADMINISTRATION

Option I

Accounting Technology

Associate of Applied Science Degree

Program Code: AP.BUS.ACCT

CIP Code: 52.0201

This program is designed primarily for students who plan to seek employment in financial or managerial accounting. This program is also appropriate for students who are employed and who wish to upgrade their understanding of accounting principles and practices. Although the program is not designed primarily for transfer, many of the courses are transferable to some senior institutions.

GENERAL EDUCATION CORE REQUIREMENTS:

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
BUS 215 Business Communications	3
MTH Elective (to be selected from MTH 110-115 OR MTH 120 through MTH 126)	3-4
ECO 231 Principles of Macroeconomics	3
SPH 107 Fundamentals of Public Speaking	3
CIS 146 Microcomputer Applications	3
CIS Computer Information Systems Elective	3
Humanities/Fine Arts Elective	3
Total	25-26

MAJOR COURSE REQUIREMENTS:

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
BUS 246 Accounting on the Microcomputer	3
BUS 248 Managerial Accounting	3
*BUS 253 Individual Income Tax	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 275 Principles of Management	3
CIS 147 Advanced Microcomputer Applications	3
ECO 232 Principles of Microeconomics	3
CIS 111 Word Processing Software Applications or CIS 113 Spreadsheet Software Applications	3
BUS Electives	6
Total	39

TOTAL CREDITS **64-65**

*Course offered on Decatur Campus, Spring Semester.

Programs of Study

BUSINESS ADMINISTRATION Option II Business Administration

Associate of Applied Science Degree

Program Code: AP.BUAD

CIP Code: 52.0201

This program is designed primarily for students who plan to seek employment in a business-related field. This program is also appropriate for students who are employed and wish to upgrade their business skills and knowledge. Although this program is not designed for transfer, many of the courses are transferable to some senior institutions.

GENERAL EDUCATION CORE REQUIREMENTS:

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
BUS 215 Business Communications	3
MTH Elective (to be selected from MTH 110-115 OR MTH 120-126)	3-4
ECO 231 Principles of Macroeconomics	3
SPH 107 Fundamentals of Public Speaking	3
CIS 146 Microcomputer Applications	3
CIS Computer Information Systems Elective	3
Humanities/Fine Arts Elective	3
Total	25-26

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 275 Principles of Management	3
BUS 285 Principles of Marketing	3
BUS Business Electives	6
BUS 190 Workshops	6
ECO 232 Principles of Microeconomics	3
Electives (To be selected from the following BUS, CIS, OAD, QCT, RLS, TRT)	6
Total	39

TOTAL CREDITS64-65

BUSINESS ADMINISTRATION Option III Entrepreneurship

Associate of Applied Science Degree

Program Code: AP.BUS.ENTREP

CIP Code: 52.0201

This program provides training for persons who are ready to become self-employed. It is particularly recommended for people who are currently operating or are employed in the small business sector. The program is not designed for transfer, although some of the courses may transfer to some senior institutions. NOTE: Required courses may not be at all sites every semester. Due to limited course

offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes at various campus sites.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
BUS 215 Business Communications	3
MTH elective (to be selected from MTH 110-115 OR MTH 120-126)	3-4
ECO 231 Principles of Macroeconomics	3
SPH 107 Fundamentals of Public Speaking	3
CIS 146 Microcomputer Applications	3
CIS Computer Information Systems Elective	3
Humanities/Fine Arts Elective	3
Total	25-26

MAJOR COURSE REQUIREMENTS

ECO 232 Principles of Microeconomics	3
BUS 190L Developing a Business Plan	1
BUS 190M Evaluating the Entrepreneurial Personality	1
BUS 193 Business Co-Op I	1
BUS 194 Business Co-Op II	1
BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
BUS 246 Accounting on the Microcomputer	3
BUS 248 Managerial Accounting	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 275 Principles of Management	3
BUS 279 Small Business Management	3
BUS 285 Principles of Marketing	3
*BUS 190 Management Workshop Electives	3
Total	40

TOTAL CREDITS65-66

BUSINESS ADMINISTRATION

Certificate

Entrepreneurship

Program Code: CT.ENTRE

CIP Code: 52.0201

This certificate program is designed to give individuals essential skills for developing and operating a small business.

ORI 101 Orientation to College	1
BUS 190F Organizational Communications	1
BUS 190G Interpersonal Relationships	1
BUS 190L Developing a Business Plan	1
BUS 190N Financing an Entrepreneurial Enterprise	1
BUS 190M Evaluating the Entrepreneurial Personality	1
BUS 190W Customer Service	1
BUS 190Y Leadership Skills	1
BUS 241 Principles of Accounting I	3

BUS 263 Legal and Social Environment of Business.....	3
BUS 279 Small Business Management	3
TOTAL CREDITS	17

BUSINESS ADMINISTRATION Option IV Management

Associate of Applied Science Degree

Program Code: AP.BUS.MGT CIP Code: 52.0201

This program provides training and experience for persons who are currently operating a small business or who wish to become employed in the small business sector with management responsibilities. It also provides training for those who are employed or who are seeking employment in management positions. The program is not designed for transfer, although some of the courses may transfer to some senior institutions. NOTE: Required courses may not be at all sites every semester. Due to limited course offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes at various campus sites.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
BUS 215 Business Communications	3
MTH Elective (to be selected from MTH 110-115 OR MTH 120-126)	3-4
ECO 231 Principles of Macroeconomics	3
SPH 107 Fundamentals of Public Speaking.....	3
CIS 146 Microcomputer Applications.....	3
CIS Computer Information Systems Elective.....	3
Humanities/Fine Arts Elective	3
Total.....	25-26

MAJOR COURSE REQUIREMENTS

BUS 190 Management Workshop Electives.....	5
ECO 232 Principles of Microeconomics	3
BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
BUS 248 Managerial Accounting	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 275 Principles of Management.....	3
BUS 279 Small Business Management	3
BUS 285 Principles of Marketing.....	3
CIS or BUS Elective	3
Total	38

TOTAL CREDITS63-64

Programs of Study

BUSINESS ADMINISTRATION Option V Real Estate Sales and Management

Associate of Applied Science Degree

Program Code: AP.BUS.REAL.ESTATE CIP Code: 52.0201

This program offers persons employed in the real estate field opportunities to pursue related course work. It provides basic information for those interested in entering the real estate professions as well. RLS 101 Real Estate Principles (as approved by the Alabama Real Estate Commission) is a pre-licensure course for those interested in selling.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
BUS 215 Business Communications	3
MTH Elective (to be selected from MTH 110-115 OR MTH 120-126)	3-4
ECO 231 Principles of Macroeconomics	3
SPH 107 Fundamentals of Public Speaking.....	3
CIS 146 Microcomputer Applications.....	3
CIS Computer Information Systems Elective.....	3
Humanities/Fine Arts Elective	3
Total.....	25-26

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 263 The Legal and Social Environment of Business	3
BUS 271 Business Statistics I	3
BUS 275 Principles of Management.....	3
BUS 279 Small Business Management	3
BUS 285 Principles of Marketing.....	3
ECO 232 Principles of Microeconomics	3
RLS 101 Real Estate Principles	4
RLS 110 Real Estate Finance.....	3
RLS 125 Real Estate Law	4
RLS or BUS Electives	3
Total	37

TOTAL CREDITS62-63

BUSINESS ADMINISTRATION Option VI Paralegal

Associate of Applied Science Degree

Program Code: AP.BUS.PRL CIP Code: 52.0201

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
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Programs of Study

ENG 101 English Composition I	3
ENG 102 English Composition II	3
SPH 107 Fundamentals of Public Speaking.....	3
Humanities/Fine Arts Elective	3
Social/Behavioral Science Elective.....	6
MTH Elective (to be selected from MTH 110-115 OR MTH 120-126)	3-4
Total.....	21-22

MAJOR COURSE REQUIREMENTS

BUS 215 Business Communications	3
BUS 241 Principles of Accounting I	3
BUS 263 The Legal and Social Environment of Business OR PRL 150 Commercial Law	3
BUS 275 Principles of Management OR PRL 282 Law Office Management and Procedures	3
CIS 146 Microcomputer Applications	3
CIS Elective (CIS 147 or CIS 197 Recommended)	3
PRL 160 Criminal Law and Procedure OR CRJ 150 Introduction to Corrections.....	3
PRL 210 Real Property Law OR RLS 101 Real Estate Principle	3
PRL Elective	3
PRL Electives (Choose from PRL 101, 102, 230, 240 or 262)	15
Total	42

TOTAL CREDITS63-64

CHILD DEVELOPMENT

Associate of Applied Science Degree

Program Code: AP.CHD

CIP Code: 19.0708

This program is designed primarily for students who plan to seek employment in preschool or school age programs. All students are required to complete the General Education Core Requirements and the Child Development Common Core courses.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
ENG 102 English Composition II	3
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 101, THR 120)	3
SPH 107 Fundamentals of Public Speaking.....	3
MTH 116 Mathematical Applications <u>OR</u> MTH 112 Precalculus Algebra	3
BIO 103 Principles of Biology I.....	4
CIS 146 Microcomputer Applications	3
History Elective.....	3
PSY 200 General Psychology	3
Total General Credit Hours	29

MAJOR COURSE REQUIREMENTS

CHD 202 Children's Creative Experiences	3
CHD 203 Children's Literature and Language Development	3
CHD 204 Methods and Materials for Teaching Children	3
CHD 205 Program Planning for Educating Young Children	3
CHD 206 Children's Health and Safety	3
CHD 209 Infant and Toddler Education Programs.....	3
CHD 210 Educating Exceptional Children	3
CHD 215 Supervised Practical Experiences in Child Development	3
PSY 211 Child Growth and Development Principles.....	3
Child Development Electives	6
Choose <u>two</u> (2) of the following:	
CHD 100 Introduction of Early Care and Education of Children.....	3
CHD 214 Families and Communities in Early Childcare and Education Programs	3
CHD 220 Parenting Skills	3
General Electives	6
Total Credit Hours	39

TOTAL CREDITS68

Students also have the option of completing the following specialty course requirements for additional professional training.

Administration

CHD 208 Administration of Child Development Programs	3
BUS 263 The Legal and Social Environment of Business	3
BUS 275 Principles of Management.....	3
BUS 279 Small Business Management	3

Total Administration Credit Hours12

CHILD DEVELOPMENT CDA Credential

This program meets the needs of those students interested in the 120 clock hours of formal training necessary for the nationally recognized CDA credential. This CDA Credential is awarded by the Council for Early Childhood Professional Recognition in Washington, D.C.

CHD 202 Children's Creative Experiences.....	3
CHD 204 Methods and Materials for Teaching Preschool Children	3
CHD 206 Children's Health and Safety.....	3

CHILD DEVELOPMENT Certificate

Program Code: CT.CHD

CIP Code: 19.0708

This program is designed to enrich the child care student/worker and serve as an intermediate step for those individuals continuing their work toward an associate degree in Child Development.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
*COM 100 Introductory Technical English OR ENG 101 English Composition I	3
MTH 116 Mathematical Applications OR MTH 112 Precalculus Algebra	3
*OAD 101 Beginning Keyboarding OR CIS 146 Microcomputer Applications.....	3

MAJOR COURSE REQUIREMENTS

PSY 211 Child Growth and Development Principles.....	3
CHD 202 Children's Creative Experiences.....	3
CHD 204 Methods and Materials for Teaching Children.....	3
CHD 205 Program Planning for Educating Young Children	3
CHD 210 Educating Exceptional Children	3
Total Credits	25

*Students who may want to pursue the Child Development Associate of Applied Science degree should take ENG 101 and CIS 146 course options.

CLINICAL LABORATORY TECHNOLOGY (CLT)

Associate of Applied Science Degree

Program Code: AP.CLT

CIP Code: 51.1004

A clinical (or medical) laboratory technician is an integral part of the healthcare team. The responsibilities of a CLT (or MLT) include processing and analyzing blood, body fluid or other specimens in order to provide accurate and timely information to the ordering physician. The clinical information produced by the clinical laboratory technician is utilized to make diagnostic and treatment decisions. The program can be completed in five (5) semesters for a total of 73 semester hours.

The College is seeking accreditation from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) for the clinical laboratory technology program. Graduates, upon successful completion of an accredited program, will be eligible to take a nationally-recognized certificate exam. The ASCP (American Society for Clinical Pathologists) Medical Laboratory Technician (MLT) certification exam is one example. Be advised that a criminal and/or drug history could result in denial of permission to take the credentialing examination.

Students may be required to submit to drug and alcohol testing or a criminal and credit history background check as a precondition to beginning a clinical site experience as stipulated by contracts between the health agencies and Calhoun Community College, Department of Allied Health. The fees for any required testing are the responsibility of the student. Written guidelines for the screening process will be provided to the student when required as a precondition for clinical training.

POLICIES AND CURRICULUM

Policies and Curriculum for the Associate Degree Clinical Laboratory Technology program are subject to change at any time. Written

notice will be given to all students enrolled in CLT courses prior to implementation of change.

PROGRAM CURRICULUM

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
ENG 102 English Composition II OR Humanities Elective	3
MTH 100 Intermediate College Algebra	3
BIO 201 Anatomy and Physiology I.....	4
BIO 202 Anatomy and Physiology II.....	4
Speech Elective (Choose from SPH 106 OR 107 OR 116	3
PSY 200 General Psychology	3
TOTAL	24

MAJOR COURSE REQUIREMENTS

CLT 100 Phlebotomy OR CLT 106 Clinical Calculations & Statistics	2
CLT 111 Urinalysis & Body Fluids	3
CLT 121 Hematology.....	5
CLT 131 Laboratory Techniques.....	3
CLT 141 Microbiology I.....	5
CLT 142 Microbiology II.....	5
CLT 151 Clinical Chemistry	5
CLT 161 Integrated Laboratory Simulation.....	2
CLT 181 Immunology.....	2
CLT 191 Immunohematology	5
CLT 294 Practicum I (U/A & Heme)	3
CLT 295 Practicum II (Micro).....	3
CLT 296 Practicum III (Blood Bank).....	3
CLT 297 Practicum IV (Chemistry).....	3
TOTAL	49
TOTAL CREDITS	73

ADMISSION REQUIREMENTS

Applicants must meet the minimum admission standards to be considered for selection. After meeting all minimum requirements, applicants are rank-ordered using a 100-point system. Applicants not meeting minimum admission standards *will not be considered*. Minimum admission standards for the Associate Degree Clinical Laboratory Technology Program include:

1. Unconditional admission to the college.
2. Receipt of completed application for the Associate Degree Clinical Lab Technology Program by posted deadlines.
3. A minimum of 2.50 cumulative Grade Point Average (GPA) on college work attempted within the last two years.
4. A minimum of 2.50 high school Grade Point Average (GPA) for students without prior college work.
5. NOTE: GED is acceptable in lieu of high school transcript.
6. Eligibility for English 101 and Math 100 as determined by college policy.
7. Good standing with college.
8. Meeting the essential functions or technical standards required

Programs of Study

for CLT.

9. A score of 76 or higher on the COMPASS Reading Examination (or related ACT Reading Score of 17 or higher).
10. Keyboarding skill of at least 25 words per minute as determined by typing test; or completion of a keyboarding, word processing, or computer applications course.

SELECTION PROCESS

Since class size is limited, the Admission Committee will evaluate each applicant's academic performance and select applicants with the strongest academic record. A 100-point system is used to evaluate academic standing based on the following calculation of points for students meeting Minimum Admission Requirements:

1. **Points for grades in selected college or high school courses (maximum 90):** A = 30 points, B = 20 points, C = 10 points

College courses are

MTH 100 or higher
BIO 103 or BIO 201 or BIO 202
CHM 104 or CHM 111 or higher

High school courses are:

Algebra II or higher-level math
Highest level Biology
Chemistry

2. **Additional Points (maximum 10 points)**

Students may be awarded up to 10 points as determined for

Completion of Phlebotomy Course.....5 points
Transcript or certificate of completion must be provided

Calhoun Points – Credit hours completed at this college up to 5 points

>11 hrs=5, 9-11 hrs=4, 6-8 hrs=3, <6 hrs=2

(At distance sites, use your local college points – Central Alabama or Southern Union. Points awarded only for credit hours completed – not currently enrolled)

3. Applicant's cumulative GPA may be considered in the selection process. Applicant may be requested to provide a letter of recommendation from faculty or employer. This letter of recommendation may be considered in the selection process.

ENROLLMENT REQUIREMENTS FOR CLT AAS DEGREE PROGRAM

Once enrolled in the CLT program and prior to being scheduled for any laboratory or clinical experience, the student must

1. Provide a current Student Health Form (provided) that has been completed by a licensed physician or nurse practitioner which will include documentation of:
 - Two-step Mantoux skin test (PPD) or chest X-ray,
 - Immunity or vaccination for rubella, tetanus, and varicella-zoster, and
 - Ability to perform essential functions as listed on health form.
2. Present proof that they have received the three (3) Hepatitis B vaccinations or proof of immunity to the Hepatitis B virus. If a student chooses not to receive the Hepatitis B vaccine, they must sign a form indicating their refusal (waiver form).

3. Provide proof of purchase of professional liability insurance through the College as required by CLT program.
4. In addition to the above College requirements, the contracts between Calhoun Community College and area healthcare providers may require proof of the following prior to students being scheduled for or attending a clinical experience:
 - Current cardiopulmonary resuscitation (CPR) course completion,
 - Drug and / or alcohol abuse testing, and
 - Criminal background check.
5. Fees / costs for all of the above enrollment requirements will be the sole responsibility of the student.

ENROLLMENT REQUIREMENTS FOR CLT 100 – PHLEBOTOMY COURSE ONLY

Once enrolled in the CLT 100 - Phlebotomy course and prior to being scheduled for any laboratory or clinical experience, the student must

1. Provide a current Student Health Form (provided) that has been completed by a licensed physician or nurse practitioner which will include documentation of
 - Two-step Mantoux skin test (PPD) or chest X-ray,
 - Immunity or vaccination for rubella, tetanus, and varicella-zoster, and
 - Ability to perform essential functions as listed on health form.
2. Present proof that they have received the three (3) Hepatitis B vaccinations or proof of immunity to the Hepatitis B virus. If a student chooses not to receive the Hepatitis B vaccine, they must sign a form indicating their refusal (waiver form).
3. Provide proof of purchase of professional liability insurance through the College as required by CLT 100 - Phlebotomy course. The insurance fee must be paid with tuition.
4. In addition to the above College requirements, the contracts between Calhoun Community College and area healthcare providers may require proof of the following prior to students being scheduled for or attending a clinical experience:
 - Current cardiopulmonary resuscitation (CPR) course completion,
 - Drug and / or alcohol abuse testing, and
 - Criminal background check.
5. Fees / costs for all of the above course requirements will be the sole responsibility of the student.

ESSENTIAL FUNCTIONS

Requirements for students entering and participating in the Clinical Laboratory Technology program include but are not limited to the ability to

1. lift 40 pounds
2. hear high and low frequency sounds within normal range, with or without corrective devices.
3. see with 20/40 visual acuity, with or without corrective lenses.
4. feel veins and pulses.
5. smell body and environmental odors.
6. coordinate eye and hand movements.
7. coordinate motor movements.
8. see different color spectrums.
9. read, comprehend and write legibly in the English language.
10. send and receive verbal messages in the English language and to respond appropriately.

11. perform correctly simple mathematical computations.
12. walk and transport equipment without assistance.
13. reach and position overhead equipment used in the laboratory.
14. be oriented to reality and not be mentally impaired by mind-altering substances.

PROGRESSION IN THE PROGRAM

Students are expected to meet co-requisite requirements to progress in the program. Students must maintain a 2.0 GPA in all courses taken and/or transferred to Calhoun to continue in the program. Once accepted in to the CLT program, all coursework requires a grade of C or better to continue.

COMPUTER GRAPHICS

Option I Graphic Design

Associate of Applied Science Degree

Program Code: AP.CMP.GRAPHICS

CIP Code: 50.0401

This program is for those interested in refining artistic talents and in preparing a professional quality portfolio in order to strengthen employment possibilities. Courses in graphic design, advertising, computer graphics and technical illustration are emphasized in this program. Some courses are offered only once a year in the day program on the Decatur campus. Students should plan schedules with the advice of the art faculty.

A formal review of a professional quality portfolio of the student's work is required upon completion of the program of study.

Year I (Fall)

ART 113 Drawing I	3
ART 121 Two Dimensional Composition I	3
ART 221 Computer Graphics I	3
VCM 180 Introduction to Graphic Design	3
ORI 101 Orientation to College	1
Choose one (1) General Education Course	3
Total	16

Year I (Spring)

ART 114 Drawing II	3
ART 253 Graphic Design I	3
VCM 150 Typography	3
VCM 232 Advanced Computer Graphics	3
ART 203 Art History I	3
Choose one (1) course from General Education Courses	3
Total	18

Year II (Fall)

VCM 250 Introduction to Technical Illustration	3
ART 254 Graphic Design II	3
ART 216 Printmaking I	3
VCM 145 Introduction to Digital Photography	3
Choose two (2) General Education Courses	6
Total	18

Year II (Spring)

VCM 251 Technical Illustration	3
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ART 204 Art History I	3
ART 126 Color	3
VCM 146 Digital Photography	3
ART 291 Supervised Study I	1
ART 299 Portfolio	1
Total	14

General Education Core Requirements

ENG 101 English Composition I	3
MTH Elective (to be selected from MTH 110-116 OR MTH 120-MTH 126)	3
Humanities Elective	3
SPH 107 Fundamentals of Public Speaking	3
Social Science Elective	3

TOTAL CREDITS66

COMPUTER GRAPHICS

Option II Computer Graphics/Electronic Imaging

Associate of Applied Science Degree

Program Code: AP.CMP.IMAGE

CIP Code: 50.0401

This program is for those interested in refining artistic talents and in preparing a professional quality portfolio in order to strengthen employment possibilities. Courses in graphic design, advertising, computer graphics, technical illustration, and multimedia production are emphasized in this program. Some courses are offered only once a year in the day program on the Decatur campus. Students should plan schedules with the advice of the art faculty.

A formal review of a professional quality portfolio of the student's work is required upon completion of the program of study. Option II offers a greater emphasis on Computer Graphics/Electronic Imaging.

Year I (Fall)

ART 113 Drawing I	3
ART 121 Two Dimensional Composition I	3
ART 221 Computer Graphics I	3
VCM 180 Introduction to Graphic Design	3
ORI 101 Orientation to College	1
ART 203 Art History I	3
Total	16

Year I (Spring)

ART 253 Graphic Design I	3
VCM 150 Typography	3
VCM 232 Advanced Computer Graphics	3
ART 204 Art History II	3
Choose two (2) General Education Course	6
Total	18

Year II (Fall)

VCM 250 Introduction to Technical Illustration	3
VCM 145 Introduction to Digital Photography	3
VCM 281 Digital Design	3
VCM 285 Multimedia Production	3
Choose two (2) General Education Courses	6
Total	18

Programs of Study**Year II (Spring)**

VCM 251 Technical Illustration.....	3
VCM 286 Advanced Multimedia Production	3
VCM 282 Advanced Digital Design	3
ART 254 Graphic Design II	3
ART 299 Portfolio.....	1
VCM 146 Digital Photography	3
Total.....	16

General Education Course Requirements

ENG 101 English Composition I	3
MTH Elective (to be selected from MTH 110-116 OR MTH 120-MTH 126)	3
SPH 107 Fundamentals of Public Speaking.....	3
Social Science Elective	3

TOTAL CREDITS68

**COMPUTER GRAPHICS
Option III
Graphic Animation/Electronic Imaging**

Associate of Applied Science Degree**Program Code: AP.CMP.ANIMA****CIP Code: 50.0401****Year I (Fall)**

ART 113 Drawing I.....	3
ART 121 Two Dimensional Composition I.....	3
ART 221 Computer Graphics I	3
VCM 180 Introduction to Graphic Design	3
ORI 101 Orientation to College.....	1
Choose one (1) General Education Course	3
Total.....	16

Year I (Spring)

ART 253 Graphic Design I.....	3
CAT 182 3D (Graphics and Animation).....	3
VCM 232 Advanced Computer Graphics	3
ART 203 Art History I	3
Choose one (1) course from General Education Courses	3
Total.....	15

Year II (Fall)

VCM 250 Introduction to Technical Illustration	3
VCM 145 Introduction to Digital Photography.....	3
VCM 281 Digital Design	3
VCM 285 Multimedia Production	3
ART 283 Graphic Animation I	3
Choose one (1) course from General Education Courses	3
Total.....	18

Year II (Spring)

VCM 251 Technical Illustration.....	3
VCM 286 Advanced Multimedia Production	3
VCM 282 Advanced Digital Design	3
ART 284 Graphic Animation II	3
ART 299 Portfolio.....	1
ART 204 Art History II.....	3
Choose one (1) course from General Education Courses	3
Total.....	19

General Education Core

ENG 101	3
MTH Elective: 110-115 or 120-126 (Choose one).....	3-4
SPH 107 Fundamentals of Public Speaking.....	3
Social Science Elective	3

TOTAL CREDITS.....68

**COMPUTER INFORMATION SYSTEMS
Option I
Microcomputer Applications**

Associate of Applied Science Degree**Program Code: AP.CIS.MICRO****CIP Code: 11.0101**

This program of study is under revision, please consult with CIS Department before registering.

This program is designed for students seeking employment in the field of the technical concentration. The program is not designed for transfer, although many of the courses are transferable to some senior institutions. NOTE: Required courses may not be available every semester. Due to limited course offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
BUS 215 Business Communications.....	3
SPH 107 Fundamentals of Public Speaking	3
MTH Elective (to be selected from MTH 110 through 115 OR MTH 120 through 126)	3
CIS 146 Microcomputer Applications	3
CIS Elective.....	3
ECO 231 Principles of Macroeconomics	3
Humanities/Fine Arts Elective.....	3

Total.....25

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I.....	3
BUS 242 Principles of Accounting II.....	3
CIS 147 Advanced Microcomputer Applications	3
CIS 148 Visual Basic Applications.....	3
CIS 150 Introduction to Computer Logic and Programming.....	3
CIS 197C Dreamweaver	3
CIS 111 Word Processing Software Applications	3
CIS 113 Spreadsheet Software Applications	3
CIS 249 Microcomputer Operating Systems.....	3
CIS 268 Software Support.....	3
CIS 269 Hardware Support	3
CIS 161 Introduction to Networking Communications OR CIS 270 Cisco I	3
CIS Electives (Choose from: CIS 207, CIS 209, CIS 212, CIS 213, CIS 250, CIS 251, CIS 252, CIS 255)	6

Total.....42

TOTAL CREDITS67

COMPUTER INFORMATION SYSTEMS
Option II
Programming

Associate of Applied Science Degree

Program Code: AP.CIS.PROG

CIP Code: 11.0101

This program of study is under revision, please consult with CIS Department before registering.

This program is designed for students seeking employment in the field of the technical concentration. The program is not designed for transfer, although many of the courses are transferable to some senior institutions. NOTE: Required courses may not be available every semester. Due to limited course offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
BUS 215 Business Communications.....	3
SPH 107 Fundamentals of Public Speaking	3
MTH Elective (to be selected from MTH 110 through 115 OR MTH 120 through 126)	3
CIS 146 Microcomputer Applications	3
ECO 231 Principles of Macroeconomics.....	3
Humanities/Fine Arts Elective.....	3
Total.....	22

MAJOR COURSE REQUIREMENTS

BUS 241 Principles of Accounting I	3
BUS 242 Principles of Accounting II	3
CIS 147 Advanced Microcomputer Applications.....	3
CIS 150 Introduction to Computer Logic and Programming.....	3
CIS 212 Visual Basic.....	3
CIS 222 Database Management Systems	3
CIS 249 Microcomputer Operating Systems.....	3
CIS 251 C++ Programming.....	3
CIS 252 Advanced C++ Programming.....	3
CIS 255 JAVA Programming.....	3
CIS 268 Software Support	3
CIS 269 Hardware Support	3
CIS 161 Introduction to Networking Communications OR CIS 270 Cisco I	3
CIS Electives (Choose from: CIS 148, CIS 207, CIS 213, CIS 279, CIS 280, CIS 296, CIS 297, CIS 299)	6
Total.....	45

TOTAL CREDITS67

COMPUTER INFORMATION SYSTEMS
Option III
Networking Technology

Associate of Applied Science Degree

Program Code: AP.CIS.NET

CIP Code: 11.0101

This program of study is under revision, please consult with CIS Department before registering.

This program is designed for students seeking employment in the field of the technical concentration. The program is not designed for transfer, although many of the courses are transferable to some senior institutions. NOTE: Required courses may not be available every semester. Due to limited course offerings, degree seeking students may find it necessary to extend completion timelines and attend both day and evening classes.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I.....	3
BUS 215 Business Communications.....	3
SPH 107 Fundamentals of Public Speaking	3
MTH Elective (to be selected from MTH 110 through 115 OR MTH 120 through 126)	3
CIS 146 Microcomputer Applications	3
ECO 231 Principles of Macroeconomics.....	3
Humanities/Fine Arts Elective.....	3
Total.....	22

MAJOR COURSE REQUIREMENTS

CIS 150 Introduction to Computer Logic and Programming.....	3
CIS 212 Visual Basic.....	3
CIS 249 Microcomputer Operating Systems.....	3
CIS 251 C++ Programming	3
CIS 268 Software Support	3
CIS 269 Hardware Support	3
CIS 270 CISCO I	3
CIS 271 CISCO II	3
CIS 272 CISCO III	3
CIS 273 CISCO IV	3
CIS 279 Network Infrastructure Design	3
CIS 280 Network Security.....	3
CIS 289 Wireless Networking	3
CIS Electives (Choose from: CIS 171, CIS 172, CIS 282, CIS 296, CIS 297, CIS 299)	6
Total.....	45

TOTAL CREDITS67

Programs of Study

COMPUTER INFORMATION SYSTEMS

CISCO Preparation Certificate

Program Code: CT.CIS.CISCO

CIP Code: 11.0101

***This program of study is under revision, please consult with CIS Department before registering.**

This certificate option provides courses preparing students for the CCNA (Cisco Certified Network Associate) exam series. CCNA certification is one of the most prestigious and in-demand IT certifications in the nation and is widely respected by network professionals. Completion of this certificate indicates a foundation in and apprentice knowledge of Cisco networking.

CIS 270 CISCO I	3
CIS 271 CISCO II	3
CIS 272 CISCO III	3
CIS 273 CISCO IV	3
CIS 289 Wireless Networking	3

TOTAL CREDITS15

COMPUTER INFORMATION SYSTEMS

Computer Technician Preparation Certificate

Program Code: CT.CIS.COMPTECH

CIP Code: 11.0101

***This program of study is under revision, please consult with CIS Department before registering.**

This certificate is preparation for the A+ Certification Exam.

CIS 171 Fundamentals of UNIX/LINUX I	3
CIS 172 Fundamentals of UNIX/LINUX II	3
CIS 249 Microcomputer Operating Systems	3
CIS 268 Software Support	3
CIS 269 Hardware Support	3
CIS 280 Network Security	3

TOTAL CREDITS18

COMPUTER INFORMATION SYSTEMS

Software Applications Certificate

Program Code: CT.CIS.SOFTWARE

CIP Code: 11.0101

The Software Applications Certificate is designed for students seeking instruction in various types of Microsoft software in preparation for the Microsoft Office Specialist exams. Instruction is designed for those seeking to be more employable in the job market or to enhance current computer skills. While the certificate focuses on Microsoft Office Specialist objectives, vendor-sponsored testing is not a requirement for certificate completion.

ORI 101 Orientation to College	1
CIS 111 Word Processing Software Applications	3
CIS 113 Spreadsheet Software Applications	3
CIS 197V Microsoft Word Expert	3

CIS 197Y Microsoft Excel Expert	3
CIS 115 Presentation Graphics Software Applications	3
CIS 117 Database Management Software Applications	3

TOTAL CREDITS19

COSMETOLOGY

Certificate

Program Code: CT.COS

CIP Code: 12.0401

This program has been constructed to give the student knowledge and skills that are required to become a licensed cosmetologist. The length of the program is 1200 credit unit hours. Students entering cosmetology must have a high school diploma or hold an equivalency certificate, and have the approved health card. A Skin Test is required to meet State Cosmetology Board regulations.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College	1
ENG 101 English Composition I	3
SPH 107 Fundamentals of Public Speaking OR	
SPH 116 Introduction to Interpersonal Communication	3
MTH 100 Intermediate College Algebra OR	
MTH 116 Mathematical Applications	3
CIS Computer Information Systems Elective	3

Total13

MAJOR COURSE REQUIREMENTS

BAR 114 Advanced Barber-Styling Lab OR	
BAR 132 Hairstyling and Design	3
COS 111 Introduction to Cosmetology	3
COS 112 Introduction to Cosmetology Lab	3
COS 113 Theory of Chemical Services	3
COS 114 Chemical Services Lab	3
COS 115 Hair Coloring Theory	3
COS 116 Hair Coloring Lab	3
COS 117 Basic Spa Techniques	3
COS 118 Basic Spa Techniques Lab	3
COS 119 Business of Cosmetology	3
COS 123 Cosmetology Salon Practices	3
COS 141 Applied Chemistry for Cosmetology	3
COS 142 Applied Chemistry for Cosmetology Lab	3
COS 143 Specialty Hair Prep Techniques	3
COS 144 Hair Shaping and Design	3
COS 167 State Board Review	3

Total48

TOTAL CREDITS61

COSMETOLOGY/INSTRUCTOR TRAINING

Certificate

Program Code: CT.COS.INSTRUCT

CIP Code: 12.0499

A teacher-training program for licensed cosmetologists. Upon completion of this program, the graduate is eligible to take the Alabama Instructor Examination.

CIT 211 Teaching and Curriculum Development	3
CIT 212 Teacher Mentorship	3
CIT 213 Lesson Plan Development.....	3
CIT 221 Lesson Plan Implementation.....	3
CIT 222 Instructional Materials and Methods.....	3
CIT 223 Instructional Materials and Methods Applications	3
TOTAL CREDITS	19

COSMETOLOGY/NAIL TECHNOLOGY

Certificate

Program Code: CT.COS.NAIL

CIP Code: 12.0410

This program of training is designed for the student who is preparing for a career in manicuring, pedicuring, and artificial nail application.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
SPH 107 Fundamentals of Public Speaking OR	
SPH 116 Introduction to Interpersonal Communication.....	3
MTH Elective (numbered 100 or higher)	3-4
CIS Computer Information Systems Elective.....	3
Total	10-11

MAJOR COURSE REQUIREMENTS

COS 151 Nail Care.....	3
COS 152 Nail Care Applications.....	3
COS 153 Nail Art	3
COS 154 Nail Art Applications	3
COS 190 Internship in Cosmetology	3
COS 191 Co-Op.....	3
Total	18
TOTAL CREDITS	28-29

DENTAL ASSISTING

Associate of Applied Science Degree

Program Code: AP.DNT

CIP Code: 51.0601

Dental Assisting is a dental auxiliary field. As auxiliary team members, students in the Dental Assisting program are taught to be generalists. They perform a variety of functions in the dental office requiring communication skills, critical thinking and sound judgment. Dental

Assistants may provide chairside assistance to the dentist, perform work in the dental laboratory, provide oral hygiene instruction, assist with radiological procedures and/or perform office managerial duties. Through evaluation techniques, Dental Assistants enhance the quality of care the patient receives.

The Associate of Applied Science degree is awarded to the student who completes the general education core requirements and major course requirements for dental assisting. This can be accomplished in four semesters. A three-semester certificate program is also available. Graduates of either program are eligible to apply to take the certification examination administered by the Dental Assisting National Board.

The Dental Assisting program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. The Dental Assisting program is operated with the approval of the Board of Dental Examiners of Alabama.

PROGRAM OBJECTIVES

Program objectives, as defined by the Dental Assisting program, are utilized to prepare individuals in the program to become competent dental assisting practitioners. Upon successful completion of the Dental Assisting program, graduates will be able to:

1. Utilize effective communicative skills.
2. Participate as a member of the dental health team in the coordination and delivery of patient care.
3. Teach the patient adequate nutrition as it relates to health and the teeth.
4. Perform four-handed assisting skills to assist the dentist in general dentistry.
5. Perform common laboratory procedures.
6. Implement beginning skills for assisting in the dental specialties.
7. Expose, process and mount dental radiographs.
8. Demonstrate skills in organizing and maintaining the secretarial assistant position.
9. Assist the dentist during office emergencies.
10. Demonstrate acceptable behavior by practicing within the ethical and legal guidelines of the Dental Assistant.
11. Participate in continuing education by:
 - a. reading current literature.
 - b. attending continuing education programs through formal and/or informal educational experiences.
 - c. networking with members of the dental health team to impart knowledge.

Admission to the program: Applicants must meet the admission requirements of Calhoun Community College. Applicants must have a 2.5 grade point average, must be eligible to take English 101 and Math 100 OR Math 112 OR Math 116 or have permission of the Dental Assisting instructor. Program application can be downloaded from the Calhoun website and submitted to the Dental Assistant Director. Deadline for application submission is June 15th. Dental Assisting classes are admitted once a year, fall semester. For more information/appointment, contact the Dental Assisting Director, 256/306-2812 or the Allied Health Department, 306-2786.

Students enrolled in the Dental Assisting program fall semester will be required to:

1. Provide evidence of current cardiopulmonary resuscitation (CPR) course completion. CPR course completion must be

Programs of Study

- maintained throughout the program.
2. Submit a current student Health Examination form completed appropriately by a licensed physician. Form furnished by Allied Health Department.
3. Provide medical verification of two-step Mantoux skin test (chest x-ray if positive) indicating he/she is free of tuberculosis.
4. Provide documentation of immunity for Rubeola, Mumps, and Rubella (measles).
5. Provide verification of immunization for hepatitis B and/or show positive antibodies, or sign a waiver.
6. Purchase radiation badge.
7. Purchase professional liability insurance through the college by the first week of classes. (Forms available in the Allied Health Department)
8. Arrange reliable transportation to and from clinical facilities as required by the program.
9. Abide by the policies of the College and Dental Assisting Policy Manual.

Progression in the Program: Students are expected to meet pre-requisite/co-requisite requirements to progress in the program. Students must attain a minimum grade of "C" in theory for each Dental Assisting course and earn a grade of "Satisfactory" for Dental Assisting courses with that component.

Readmission to the Program: A student may be readmitted to a Dental Assisting program one time following a failure of or withdrawal from a Dental Assisting course. Students who are currently returning following a failure are considered to be using their second and final opportunity to complete the Dental Assisting Program. Students may apply for readmittance within one year of original entry by submitting a letter of intent to the Program Director.

The readmission of a student is based on availability of space and the student-teacher ratio, provided the student is eligible to return. Any student requesting readmission must have a minimum Grade Point Average of 2.5 on all course work attempted. All requirements for students enrolling in the program will apply to students returning to the Dental Assisting program. Students who re-enter the program may be subject to following the current curriculum.

To be readmitted to the Dental Assisting program, the student must contact the program director at 256-306-2812 to schedule an appointment to discuss readmission.

Policy/Curriculum Changes: Policies/Curriculum changes in the Dental Assisting program are subject to change at any given time. Written documentation will be provided to students currently enrolled in the program prior to change in policy/curriculum.

Fall	Cr. Hrs.
ORI 101 Orientation to College	1
DNT 100 Introduction to Dental Assisting	2
DNT 101 Preclinical Procedures I	3
DNT 102 Dental Materials	3
DNT 103 Anatomy and Physiology for Dental Assistants	3
DNT 104 Basic Sciences for Dental Assisting	2
*PSY 200 General Psychology	3

Spring	Cr. Hrs.
DNT 111 Clinical Practice I	5

DNT 112 Dental Radiology	3
DNT 113 Dental Health Education	2
DNT 116 Preclinical Procedures II	2
DNT 124 Clinically Applied Infection Control and OSHA Standards	1
*MTH Elective (May choose from the following)	3
MTH 100 Intermediate College Algebra	
MTH 112 Precalculus Algebra	
MTH 116 Mathematical Applications	
*SPH 107 Fundamentals of Public Speaking	3
Summer	Cr. Hrs.
DNT 121 Dental Office Procedures	4
DNT 122 Clinical Practice II	4
DNT 123 Dental Assisting Seminar	4
*ENG 101 English Composition I	3
General Education Core Requirements in addition to courses listed above (required for AAS Degree):	

*Natural Science elective	4
*CIS elective	3
*Humanities/Fine Arts elective	3
*History or Social Science or Behavioral Science elective	3

TOTAL CREDITS **64**

*General Education Core Courses may be completed prior to entering the program.

DENTAL ASSISTING

Certificate

Program Code: CT.DNT

CIP Code: 51.0601

Dental Assisting is a dental auxiliary field. As auxiliary team members, students in the Dental Assisting program are taught to be generalists. They perform a variety of functions in the dental office requiring communication skills, critical thinking and sound judgment. Dental Assistants may provide chairside assistance to the dentist, perform work in the dental laboratory, provide oral hygiene instruction, assist with radiological procedures and/or perform office managerial duties. Through evaluation techniques, Dental Assistants enhance the quality of care the patient receives.

Certificates are programs of study designed to give students specific skills in a technology. Should students later wish to pursue a degree program, all courses within the certificate will apply toward the degree.

The Dental Assisting program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. The Dental Assisting program is operated with the approval of the Board of Dental Examiners of Alabama.

PROGRAM OBJECTIVES

Program objectives, as defined by the Dental Assisting program, are utilized to prepare individuals in the program to become competent dental assistant practitioners. Upon successful completion of the

Dental Assisting program graduates will be able to

1. Utilize effective communicative skills.
2. Participate as a member of the dental health team in the coordination and delivery of patient care.
3. Teach the patient adequate nutrition as it relates to health and the teeth.
4. Perform four-handed assisting skills to assist the dentist in general dentistry.
5. Perform common laboratory procedures.
6. Implement beginning skills for assisting in the dental specialties.
7. Expose, process and mount dental radiographs.
8. Demonstrate skills in organizing and maintaining the secretarial assistant position.
9. Assist the dentist during office emergencies.
10. Demonstrate acceptable behavior by practicing within the ethical and legal guidelines of the Dental Assistant.
11. Participate in continuing education by:
 - a. reading current literature.
 - b. attending continuing education programs through formal and/or informal educational experiences.
 - c. networking with members of the dental health team to impart knowledge.

Admission to the program: Applicants must meet the admission requirements of Calhoun Community College. Applicants must have a 2.5 grade point average, must be eligible to take English 101 and Math 100, OR Math 112 OR Math 116 or have permission of the Dental Assisting instructor. Program application can be downloaded from the Calhoun website-dental section and submitted to the Dental Assisting Director. Deadline for program submission is June 15th. Dental Assisting classes are admitted once a year, fall semester. For more information/appointment, contact the Dental Assisting Director, 256/306-2812 or the Allied Health Department, 306-2786.

Programs of Study

Students enrolled in the Dental Assisting program fall semester will be required to

1. Provide evidence of current cardiopulmonary resuscitation (CPR) course completion. CPR course completion must be maintained throughout the program.
2. Submit a current student Health Examination form completed appropriately by licensed physician. Form furnished by Allied Health Department.
3. Provide medical verification of two-step Mantoux skin test (chest x-ray if positive) indicating he/she is free of tuberculosis.
4. Provide documentation of immunity for Rubeola, Mumps, and Rubella (Measles).
5. Provide verification of immunization for hepatitis B and/or show positive antibodies, or sign a waiver.
6. Purchase radiation badge.
7. Purchase professional liability insurance through the college by the first week of class. (Forms available in the Allied Health Department)
8. Arrange reliable transportation to and from clinical facilities as required by the program.
9. Abide by the policies of the College and Dental Assisting Policy Manual.

When there is probable cause, the Allied Health Department reserves the right to require a prospective student, a student currently enrolled in the program, or a returning student to submit to psychological test-

ing/counseling, a drug screening, and/or a physical examination by a licensed physician at the student's expense and to submit a report of the outcome to the Allied Health Department. The Allied Health Department will provide a specific form for this purpose when applicable. All reports will be reviewed by the Dental Assisting instructor/Allied Health Department to determine if a student may be admitted, readmitted, or retained in the dental program.

Progression in the Program: Students are expected to meet pre-requisite/co-requisite requirements to progress in the program. Students must attain a minimum grade of "C" in theory for each Dental Assisting course and earn a grade of "Satisfactory" for Dental Assisting courses with that component.

Readmission to the Program: A student may be readmitted to a Dental Assisting program one time following a failure of or withdrawal from a Dental Assisting course. Students who are currently returning following a failure are considered to be using their second and final opportunity to complete the Dental Assisting program. Students may apply for readmittance within one year of original entry by submitting a letter of intent to the Program Director.

The readmission of a student is based on availability of space and the student-teacher ratio, provided the student is eligible to return. Any student requesting readmission must have a minimum Grade Point Average of 2.5 on all course work attempted. All requirements for students enrolling in the program will apply to students returning to the Dental Assisting Program. Students who re-enter the program may be subject to follow the current curriculum.

To be readmitted to the Dental Assisting program, the student must contact the program director at (256/306-2812) to schedule an appointment to discuss readmission.

Policy/Curriculum Changes: Policies/Curriculum changes in the Dental Assisting program are subject to change at any given time. Written documentation will be provided to students currently enrolled in the program prior to change in policy/curriculum.

Fall	Cr. Hrs.
ORI 101 Orientation to College	1
DNT 100 Introduction to Dental Assisting	2
DNT 101 Preclinical Procedures I	3
DNT 102 Dental Materials	3
DNT 103 Anatomy and Physiology for Dental Assistants	3
DNT 104 Basic Sciences for Dental Assisting	2
*PSY 200 General Psychology	3
Spring	Cr. Hrs.
DNT 111 Clinical Practice I	5
DNT 112 Dental Radiology	3
DNT 113 Dental Health Education	2
DNT 116 Preclinical Procedures II	2
DNT 124 Clinically Applied Infection Control and OSHA Standards	1
*MTH Elective (May choose from the following)	3
MTH 100 Intermediate College Algebra	
MTH 112 Precalculus Algebra	
MTH 116 Mathematical Applications	
*SPH 107 Fundamentals of Public Speaking	3

Summer	Cr. Hrs.
DNT 121 Dental Office Procedures	4

Programs of Study

DNT 122 Clinical Practice II.....	4
DNT 123 Dental Assisting Seminar	4
*ENG 101 English Composition I	3
TOTAL CREDITS	51

* General Education Core Courses may be completed prior to entering the program.

EMERGENCY MEDICAL SERVICES (EMS)

Certificate Associate in Applied Science

The Emergency Medical Services (EMS) program, approved by the Alabama Department of Public Health, utilizes nationally-recognized standards to provide students not only knowledge about the critical differences between the physiology, the pathophysiology, and the clinical symptoms of infants, children, adolescents, adults, and the elderly as they relate to pre-hospital emergency patient care situations, but also skills in the emergency medical care of these patients. EMS education includes legal/ethical considerations and treatment modalities/protocols within the scope of practice of the Emergency Medical Technician (EMT).

Students enrolled in the Emergency Medical Services Program may choose to earn a certificate or to earn the Associate in Applied Science degree in Emergency Medical Services. The first certificate of completion is the EMT-Basic (EMT-B) and the second is Paramedic. Upon successful completion of each certificate, the student is eligible to apply to take the National Registry Examination at his/her respective level of training. Upon successful completion of the examination, the student will be eligible to apply for licensure to practice in the State of Alabama as an EMT-B or Paramedic.

To be granted an Associate in Applied Science degree, a student must successfully complete both levels of Emergency Medical Technician training and complete the general education course requirements as outlined for the program. The Emergency Medical Services Programs are fully approved by the Alabama State Department of Public Health, Emergency Medical Services Division.

As vital members of the Emergency Medical Services (EMS) team, EMTs provide prehospital emergency care to the ill and injured patient, continuing that care until the patient is under the care of a higher level of care.

Basic EMTs have the knowledge and skills to provide basic life support to all patients whether the problem is trauma, cardiac, or medical. EMTs can splint fractures, bandage wounds, and stabilize a patient for transport to a medical facility.

Paramedics are the highest level of prehospital care in the EMS system. Paramedics record and interpret EKG findings, treat cardiac arrests with defibrillation and cardioversion, reduce shock by intravenous fluid administration, provide ventilations and airway protection by endotracheal intubation and administer pharmacological therapy. Paramedics serve as team leaders on EMS units.

The EMS curriculum for EMT-Basic and Paramedic follows the National Standard Curriculum as developed by the U.S. Department of Transportation and meets the approval of the Alabama Department of

Public Health, Emergency Medical Services Division. EMS courses are open to qualified students who meet the general admission and entry-level requirements. All students must complete the COMPASS or ASSET prior to admission into the EMS Program. All EMS students must be certified in CPR at the Health Care Provider level (or equivalent) and have completed OSHA Bloodborne Pathogens before entering the clinical areas. Passing score for all EMS courses is 75%. Graduates are eligible to apply for the National Registry Examination, passing of which is required for state licensure in Alabama.

Graduates of the EMS program find employment with ambulance services, hospitals, fire departments, rescue squads and industrial safety. Other opportunities for employment include emergency clinics, insurance companies, fire service agencies and law enforcement agencies.

In order to be eligible to attend clinicals, each student must attend a clinical orientation session. Date, time and location for clinical orientation sessions will be published each semester.

It is recommended that all students enrolling in EMS courses and REQUIRED that students registering for EMP courses make an appointment with a member of the EMS faculty prior to enrollment for counseling.

For more information, visit www.calhoun.edu or contact Ann Wagnon, EMS secretary at 256-306-2786, e-mail aww@calhoun.edu or Mark Branon at (256) 306-2854, e-mail msb@calhoun.edu.

EMT-BASIC CERTIFICATE

Program Code: CT.EMT BASIC

CIP Code: 51.0904

The EMT-Basic portion of the program is one semester in length and consists of the following courses, which are taught concurrently three days/evenings per week and must be successfully completed for eligibility for NREMT exam.

EMS 116 EMS Basic Theory and Lab	9
EMS 117 EMS Basic Clinical Competencies	1
Total hours for EMT-Basic Certificate	10

EMERGENCY MEDICAL PARAMEDIC CERTIFICATE

Program Code: CT.EMT.PARA

CIP Code: 51.0904

The Emergency Medical Paramedic (EMP) certificate level consists of 14 core EMS courses, a math and an English course at or above the 100 level. Each semester builds on the preceding semester. Students must successfully pass all courses to be eligible for the National Registry Examination for Paramedics. Students must have a grade of "C" or higher for a math and an English course - 100 level or above. Students are encouraged to complete ENG 101 to satisfy the English requirement and either MTH 100 OR MTH 112 OR MTH 116 to satisfy the mathematics requirement. Completion of these courses will also satisfy the English and mathematics requirements in the Paramedic Associate of Applied Science degree. The courses for the EMP certificate include the following:

Paramedic Semester One

EMP 189 Applied Anatomy and Physiology for the Paramedic	4
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EMP 194 Paramedic Pharmacology	2
EMP 199 Cardiovascular Electrophysiology	3
EMP 203 Cardiovascular Patient Management	3
ENG 101 English Composition I	3

Paramedic Semester Two

EMP 192 Paramedic Operations	3
EMP 193 Patient Assessment and Management	3
EMP 195 Advanced Trauma Management	6
MTH Elective (Choose from MTH 100, 112 or 116)	3

Paramedic Semester Three

EMP 191 Paramedic Preparatory	2
*EMP 200 Medical Patient Management IIA	6
EMP 198 Medical Patient Management I	3

Paramedic Semester Four

EMP 204 Transition to Paramedic Practice	3
EMP 205 Paramedic Terminal Competencies	2
*EMP 206 Paramedic Field Preceptorship	6
*EMP 207 Paramedic Team Leadership Preceptorship	1

Total hours for Paramedic Certificate (excluding EMT-Basic certificate)	53
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*Includes clinical education (Insurance OSHA Blood-Borne Pathogens and CPR Verification Required)

EMERGENCY MEDICAL SERVICES

**Paramedic
Associate in Applied Science**

Program Code: AP.EMS.PARA

CIP Code: 51.0904

EMS Course Requirements

EMT Basic (One Semester)	
EMS 116 EMS Basic Theory and Lab	9
EMS 117 EMS Basic Clinical Competencies	1
ENG 101 English Composition I	3
Math Elective (May choose from the following)	3
MTH 100 Intermediate College Algebra	
MTH 112 Precalculus Algebra	
MTH 116 Mathematical Applications	
Semester Total	16

EMT Paramedic

Paramedic Semester One:

EMP 194 Paramedic General Pharmacology	2
EMP 199 Cardiovascular Electrophysiology	3
EMP 203 Cardiovascular Patient Management	3
BIO 201 Anatomy and Physiology I	4
SPH 107 Fundamentals of Public Speaking	3

Semester Total	15
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Paramedic Semester Two:

EMP 192 Paramedic Operations	3
EMP 193 Patient Assessment and Management	3
EMP 195 Advanced Trauma Management A	6
BIO 202 Anatomy and Physiology II	4

Semester Total	16
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Paramedic Semester Three:

EMP 191 Paramedic Preparatory	2
*EMP 200 Medical Patient Management IIA	6
EMP 198 Medical Patient Management I	3
PSY 200 General Psychology	3

Semester Total	14
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Paramedic Semester Four:

EMP 204 Transition to Paramedic Practice	3
EMP 205 Paramedic Terminal Competencies	2
*EMP 206 Paramedic Field Preceptorship	6
EMP 207 Paramedic Team Leadership Preceptorship	1
Fine Arts Elective (Choose from ART 100, ART 203, ART 204, MUS 104 or THR 120)	3

Semester Total	15
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TOTAL CREDITS	76
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*Includes clinical education (Insurance OSHA Blood-Borne pathogens, and CPR Certification Required).

**EMT-Basic/EMT-Paramedic
GENERAL ADMISSION REQUIREMENTS**

There are Essential Functions required for students entering and participating in the EMT-Basic and EMT-Paramedic curricula. As a student, you must:

PHYSICAL DEMANDS

- (1) have the physical ability to walk, climb, crawl, bend, push, pull, or lift and balance over less than ideal terrain;
- (2) have good physical stamina and endurance, which would not be adversely affected by having to lift, carry, and balance at times, in excess of 125 pounds (250 pounds with assistance);
- (3) see different color spectrums;
- (4) have good eye-hand coordination and manual dexterity to manipulate equipment, instrumentation, and medications;

PROBLEM SOLVING ABILITIES (Data Collection, Judgment, Reasoning)

- (5) be able to send and receive verbal messages as well as operate appropriate communication equipment of current technology;
- (6) be able to collect facts and to organize data accurately, communicate clearly both orally and in writing in the English language at the ninth-grade reading level or higher;
- (7) be able to differentiate between normal and abnormal findings in human physical conditions by using visual, auditory, olfactory, and tactile observations;
- (8) be able to make good judgment decisions and exhibit problem-solving skills under stressful situations;
- (9) be attentive to detail and be aware of standards and rules that govern practice;
- (10) implement therapies based on mathematical calculations;
- (11) demonstrate competency in the use of computers;

WORKER CHARACTERISTICS

- (12) possess emotional stability to be able to perform duties in life-or-death situations and in potentially dangerous social situations, including responding to calls in districts known to have

Programs of Study

- high crime rates;
- (13) be able to handle stress and work well as part of a team;
- (14) be oriented to reality and not be mentally impaired by mind-altering substances;
- (15) not be addicted to drugs or alcohol;
- (16) be able to work shifts of 12 hours in length;
- (17) be able to tolerate being exposed to extremes in the environment including variable aspects of weather, hazardous fumes, and noise;
- (18) possess eyesight of a minimum of one eye correctable to 20/20 vision and be able to determine directions according to a map; students who desire to drive an ambulance must possess approximately 180 degrees peripheral vision capacity, and
- (19) possess a valid driver's license, and be able to safely and competently operate a motor vehicle in accordance with State Law.

ENTRY LEVEL REQUIREMENTS

EMT-BASIC

Entry level requirements for students entering and participating in EMS education are as follows:

1. Possess a GED or high school diploma;
2. Complete the COMPASS or ASSET exam;
3. Meet all institutional admission requirements;
4. Successfully complete within the last 12 months Basic Cardiac Life Support for the Health Care Provider;
5. Comply with "Essential Functions" of the program or attach documentation to the program application form of those essential functions of which the student is not in compliance (for review by Calhoun's American Disabilities Coordinator);
6. Provide an acceptable physical examination by a licensed medical doctor or doctor of osteopathy to include:
 - a. Written documentation (on a form provided by the program) of the physician's opinion regarding the prospective student as follows:
 - have emotional and physical ability to carry out the normal activities of prehospital emergency care;
 - compliance with the "Essential Functions" for the program; and
 - health history.
 - b. Up-to-date immunizations to include:
 - Tetanus/D within the past 10 years;
 - MMR Vaccine prior to 1969 or Rubella Titer of 1:8 or above is sufficient in lieu of MMR;
 - Two-step TB Skin test (Chest x-ray, if positive); and
 - Begin or have had the series of Hepatitis B vaccinations, or sign a waiver regarding the series of Hepatitis B vaccinations;

Health care workers who have direct patient contact or handle potentially infective materials have an increased risk for contracting Hepatitis B. A series of vaccinations for Hepatitis B is recommended by the Centers for Disease Control (CDC) and the Alabama Department of Public Health for persons who are at increased risk of infection from Hepatitis B. Cost of vaccinations is the student's responsibility.
 - c. Visual/auditory/verbal ability to include:
 - vision corrected in one eye to 20/20 (students who desire to drive an ambulance must also possess approximately 180 degrees peripheral vision capacity);
 - Color Perception; and

- being able to send and receive verbal messages.
- 7. Each student enrolled in EMS education must have verification of the following:
 - a. current professional liability insurance offered through the college (due 1st day of class); and
 - b. current health/hospitalization/accident insurance and/or waiver of liability.

EMERGENCY MEDICAL PARAMEDIC

Requirements for students entering the courses at the Emergency Medical Paramedic level are

1. Complete all EMT-Basic entry requirements.
2. Minimum cumulative GPA of 2.5 on a 4.0 scale.
3. Complete ENG 101 and MTH 100 or equivalent with a grade of "C" or higher prior to fourth semester.
4. Have a current Alabama license as an EMT-Basic or Intermediate or have completed an EMT-Basic course approved by the Alabama Department of Public Health within the past twelve months. Alabama licensure as an EMT-Basic or Intermediate is mandatory prior to beginning the second term of Paramedic courses.
5. Acceptance is granted to the most qualified applicants, with preference given to students progressing through Calhoun's EMS Program.
6. Complete a proficiency examination with a minimum score of 75% unless progressing from Calhoun's EMT Basic courses within the last 24 months.

The number of students admitted to each level of EMS education is limited according to the faculty and clinical facilities available. Priority is given to students progressing through Calhoun's program.

Licensure

Upon successful completion of the EMT-Basic/Paramedic courses, the student is eligible to apply for the respective National Registry examination administered by the State of Alabama, Department of Public Health. Licensure applicants must be at least 18 years of age.

All students entering EMS education courses may be required to comply with specific licensure requirements as set forth by the National Registry of EMTs and the Alabama Department of Public Health to become licensed as an EMT. Situations which may affect their licensure compliance include, but are not limited to

1. Not being 18 years of age or older;
2. Convicted of any criminal act, including any DUI convictions;
3. Addicted to the use of intoxicating liquors or controlled substances at the present or in the past; and
4. Not possessing 180 degrees peripheral vision capacity or a valid driver's license (for licensure as an EMT Driver).

PROGRESSION BETWEEN LEVELS

To complete individual certificates in the EMS curriculum, students must:

1. Progress through the required courses of the EMS curriculum in the prescribed sequence;
2. Attain an average of 75% in all coursework to include didactic, laboratory, clinical, and/or field internship training;
3. Submit acceptable physical examinations at intervals not to exceed 12 months;
4. Maintain current professional liability, health, and hospitaliza-

- tion insurance while enrolled in the EMS courses;
5. Maintain annual Basic Cardiac Life Support Certification at the Health Care Provider level or equivalent;
6. Comply with the "Essential Functions" required for EMT-Basic and Paramedic courses;
7. Comply with all institutional and any cooperating health agency policies, procedures, and rules of behavior as published for the students.

Readmission:

To be readmitted to the EMS program, the student must meet the criteria for readmission to the EMS program and college as stated in the catalog and must contact the Allied Health Department to schedule an appointment with EMS faculty to discuss options for successful academic achievement.

The readmission of a student is based on availability of space and student-teacher ratio provided the student is eligible to return. The student will be readmitted one time only when he/she fails to progress for academic reasons.

Any student requesting readmission must have a minimum Grade Point Average of 2.50 on all course work attempted.

An EMS Program Application Form will be required if the time and need indicated is evident as well as liability insurance renewal, tuberculin skin testing (PPD) and CPR course completion.

When there is probable cause, the Allied Health Department reserves the right to require a prospective student, a student currently enrolled in the program, or a returning student to submit to psychological testing/counseling, a drug screening and/or a physical examination by a licensed physician at the student's expense and to submit a report of the outcomes to the Allied Health Department. The Allied Health Department will provide a specific form for this purpose, when applicable. All reports will be reviewed by the Allied Health Department to determine if a student may be admitted, readmitted, or retained in the EMS/EMP courses.

Continuing education courses may be offered by individual request. Those interested should contact the EMS office at 256/306-2852.

Policies for the EMS program are subject to change at any time. Written notice will be given to students enrolled in EMS courses prior to implementation of policy change.

FIRE SCIENCE

Certificate

Program Code: CT.FSM

CIP Code: 43.0202

The Certificate in Fire Science prepares students to enter the fields of fire protection and services, or may be used to improve the competencies of professionals already in the field.

ORI 101 Orientation to College	1
COM 100 Introductory Technical English I OR	
ENG 101 English Composition I	3
CIS 146 Microcomputer Applications	3

SPH 107 Fundamentals of Public Speaking	3
FSC 101 Introduction to the Fire Service	3
FSC 200 Fire Combat Tactics and Strategy	3
FSC 210 Building Construction for the Fire Service	3
FSC 240 Fire Cause Determination	3
FSC 292 Elements of Supervision/FS Supervision	3
General Electives	2

TOTAL CREDITS.....27

MASSAGE THERAPY

Certificate

Program Code: CT.MSG

CIP Code: 51.3501

This program is designed to prepare individuals to work as massage therapists. Licensed massage therapists may be self-employed or employed at health clubs, medical clinics, chiropractic offices, athletic departments, spas, salons, and holistic health centers. Upon successful completion of the program, students may seek licensure from the Alabama Board of Massage Therapy.

Massage therapy may be indicated to address soft-tissue dysfunction or stress-related issues. Massage therapy involves manipulating muscles and other soft tissues of the body. Massage therapy is sometimes considered part of conventional medicine, but often is considered part of complementary and alternative medicine (CAM). Students in the massage therapy program are trained in entry-level massage techniques. Massage therapy requires good communication skills, critical thinking and sound judgment.

PROGRAMS OF STUDY

Certificates are programs of study designed to give students specific skills in a technology.

The Massage Therapy program is recognized by the Council on Postsecondary Accreditation and by the United States Department of Education. The Massage Therapy program is operated with the approval of the Alabama Board of Massage Therapists.

PROGRAM OBJECTIVES

Upon successful completion of the Massage Therapy program, the graduates will be able to

1. Utilize effective communication skills;
2. Participate as a member of the massage therapy health team in the coordination and delivery of Massage Therapy.
3. Enter the work force as entry-level massage therapists.
4. Use the principles and techniques of massage to assess and appropriately treat soft tissue dysfunction which may benefit from massage.
5. Have adequate information, demonstration and practice to perform massage procedures competently and safely.
6. Possess the necessary information and knowledge to understand the business, marketing, budgeting, insurance, advertising, ethical and legal principles, issues and concerns of the profession.
7. Communicate effectively with clients, other health care providers and the community at large as to the benefits and advisability of massage.
8. Have the knowledge and skills necessary to open and manage a private practice.

Programs of Study

As a Calhoun Community College Therapeutic Massage Therapy student, you will be given the skills and knowledge required to succeed as a professional massage therapist, including proficiency in the major massage therapy techniques including Swedish, Trigger Point Therapy, Neuromuscular Therapy, Deep Tissue, and Myofascial Release.

- Knowledge of the basic principles of anatomy and physiology and their relationship to the theory and practice of Massage Therapy.
- Accurate palpation and description of the major muscles and anatomical landmarks of the human body.
- Ability to communicate effectively with your clients and other health care professionals.
- Skillful application of record-keeping and other business skills needed for a successful massage practice.
- Ability to apply basic hydrotherapy techniques in a Massage Therapy practice.
- A clear understanding of the benefits and limitations of Massage Therapy and willingness to refer clients to other health care providers when necessary.

This 650 hour program is designed to provide an excellent education in the fundamentals of therapeutic massage and bodywork, preparing the Calhoun Community College Therapeutic Massage student to obtain a massage therapy license and start a successful practice. Our program qualifies graduates for the national certification exam.

To enroll in the Massage Therapy program, students must

- meet the admission requirements of Calhoun Community College and submit to the Department of Allied Health a completed Massage Therapy application for admission.
- be at least 18 years of age.
- provide proof of successful completion of high school or have a GED certificate.
- provide official copies of transcripts for any high school, GED, or college work previously undertaken
- have a one-on-one interview with the Massage Therapy Program Director.

Students enrolled in the Massage Therapy program will be required to

1. Submit a current student Health Examination form completed appropriately by a licensed physician or Family Nurse Practitioner. Form furnished by Allied Health Department.
2. Provide medical verification of two-step Mantoux skin test (chest x-ray if positive) indicating he/she is free of tuberculosis.
3. Provide documentation of immunity for Rubeola (Measles), Mumps, Rubella (German Measles) through one of the following:
 - a. History of having had the disease
 - b. Titer that demonstrates immunity
 - c. Immunization record
4. Purchase professional liability insurance through the College by the first week of class. (Forms available in the Allied Health Department)
5. Arrange transportation to and from clinical facilities as required by the program.
6. Abide by the policies of the College and Massage Therapy Policy Manual.

Massage therapy classes are admitted one to two times per year, depending on program availability. For more information, please contact the massage therapy department at 256-260-1437, or the Allied Health Department at 256-306-2786.

PROGRESSION IN PROGRAM

Students are expected to meet pre-requisite/co-requisite requirements to progress in the program. Students must attain a minimum grade of "C" in theory for each Massage Therapy course and earn a grade of "Satisfactory" for Massage Therapy courses with that component.

READMISSION TO PROGRAM

To be readmitted to the Massage Therapy program, the student must contact the Massage Therapy Program Director to schedule an appointment to discuss readmission. The student must be eligible for readmission by the College and must have an overall 2.50 grade point average. Students who re-enter the program may be subject to follow the current curriculum. All requirements for students enrolling in the program will apply to students re-entering the Massage Therapy program.

POLICY/CURRICULUM CHANGES

Policies/Curriculum changes in the Massage Therapy program are subject to change at any given time. Written documentation will be provided to students currently enrolled in the program prior to change in policy/curriculum.

When there is probable cause, the Allied Health Department reserves the right to require a prospective student, a student currently enrolled in the program, or a returning student to submit to psychological testing/counseling, a drug screening, and/or a physical examination by a licensed physician at the student's expense and to submit a report of the outcome to the Allied Health Department. The Allied Health Department will provide a specific form for this purpose when applicable. All reports will be reviewed by the Massage Therapy instructor/Allied Health Department to determine if a student may be admitted, readmitted, or retained in the Massage Therapy program.

Course	Semester Hours
MSG 100 Massage History & Theory	1
MSG 101 Massage Therapy Lab I.....	4
MSG 102 Massage Therapy Lab II	4
MSG 111 Anatomy and Physiology	3
MSG 112 Musculo-Skeletal and Kinesiology I	3
MSG 113 Musculo-Skeletal & Kinesiology II	3
MSG 114 Pathology	3
MSG 120 Massage Therapy Supervised Clinical I	1
MSG 121 Massage Therapy Supervised Clinical II	1
MSG 130 Special Populations	3
MSG 156 Career and Personal Development	2
MSG 160 National Certification Exam Review	1

TOTAL CREDITS**29**

MISSILE AND MUNITIONS TECHNOLOGY Basic

Associate of Applied Science Degree

Program Code: AP.MMT.BASIC

CIP Code: 29.0101

(U.S. Army Ordnance Missile and Munitions Center and School Only)

This is a joint program between the U.S. Army Ordnance Missile and Munitions Center and School and Calhoun Community College to afford career military personnel the opportunity to earn college credits through a combination of civilian and military education. Students may apply from 27 to 42 semester hours of USAOMMCS course credits toward the applied science degree. A minimum of 27 semester hours of OMMCS credits is required to qualify for this program.

College residence may be established through distance learning classes.

GENERAL EDUCATION CORE REQUIREMENTS

ENG 101 English Composition I	3
SPH 107 Fundamentals of Public Speaking OR SPH 228 Group Communications.....	3
*MTH 100, 103 or Higher.....	3
Humanities/Fine Arts Elective	3
Natural Science Elective	4
Social Science Elective	3
CIS Elective (CIS 146 or higher).....	3
Total	22

MAJOR COURSE REQUIREMENTS27-42**

*MTH 116 Mathematical Applications is not acceptable

**If military credits are less than 42 hours, the deficiency must be made up with General Electives (100 level or above).

TOTAL CREDITS64

Note: Admission to the MMT degree program is limited to Active, Reserve, or National Guard Military personnel or those who have separated or retired from the military within seven years of the academic year of this catalog.

MISSILE AND MUNITIONS TECHNOLOGY Option I Calibration Specialist

Associate of Applied Science Degree

Program Code: AP.MMT.CALIBRA

CIP Code: 29.0101

(U.S. Army Ordnance Missile and Munitions Center and School Only)

This is a joint program between the U.S. Army Ordnance Missile and Munitions Center and School and Calhoun Community College to afford career military personnel the opportunity to earn college credits through a combination of civilian and military education. Students may apply from 27 to 42 semester hours of USAOMMCS course credits toward the applied science degree. A minimum of 27 semester hours of OMMCS credits is required to qualify for this program.

College residence may be established through distance learning classes.

GENERAL EDUCATION CORE REQUIREMENTS

ENG 101 English Composition I	3
SPH 107 Fundamentals of Public Speaking OR SPH 228 Group Communications.....	3
*MTH 100, 103 or Higher.....	3
Humanities/Fine Arts Elective	3
Natural Science Elective	4
Social Science Elective	3
CIS 146 Microcomputer Applications or higher	3
Total	22

MAJOR COURSE REQUIREMENTS

Total.....27-42**

*MTH 116 Mathematical Applications is not acceptable

**Credits must be from calibration MOS, (i.e., 35H, 35Y, etc). If military credits are less than 42 hours, the deficiency must be made up with General Electives (100 level or above).

TOTAL CREDITS64

Note: Admission to the MMT degree program is limited to Active, Reserve, or National Guard Military personnel or those who have separated or retired from the military within seven years of the academic year of this catalog.

MISSILE AND MUNITIONS TECHNOLOGY Option II Technical Management

Associate of Applied Science Degree

Program Code: AP.MMT.TECH.MGT

CIP Code: 29.0101

(U.S. Army Ordnance Missile and Munitions Center and School Only)

This is a joint program between the U.S. Army Ordnance Missile and Munitions Center and School and Calhoun Community College to afford career military personnel the opportunity to earn college credits through a combination of civilian and military education. Students may apply from 27 to 42 semester hours of USAOMMCS course credits toward the applied science degree. A minimum of 27 semester hours of OMMCS credits is required to qualify for this program.

College residence may be established through distance learning classes.

GENERAL EDUCATION CORE REQUIREMENTS

ENG 101 English Composition I	3
SPH 107 Fundamentals of Public Speaking OR SPH 228 Group Communications.....	3
*MTH 100, 103 or Higher.....	3
Humanities/Fine Arts Elective	3
Natural Science Elective	4
Social Science Elective	3
CIS 146 Microcomputer Applications or higher	3

Programs of Study

Total22

MAJOR COURSE REQUIREMENTS

Total27-42**

*MTH 116 Mathematical Applications is not acceptable

**For soldiers with skill levels 40 and above. If military credits are less than 42 hours, the deficiency must be made up with General Electives (100 level or above).

TOTAL CREDITS64

Note: Admission to the MMT degree program is limited to Active, Reserve, or National Guard Military personnel or those who have separated or retired from the military within seven years of the academic year of this catalog.

MISSILE AND MUNITIONS TECHNOLOGY Option III Military Technology

Associate of Applied Science Degree

Program Code: AP.MMT.MIL

CIP Code: 29.0101

This degree is for active duty, reserve, national guard, or those who have retired or separated from the military within seven years of the date of this catalog. The degree is not restricted to Redstone Arsenal trained personnel, but is for students who have been trained in the U.S. Military.

GENERAL EDUCATION CORE REQUIREMENTS

ENG 101 English Composition I3
SPH 107 Fundamentals of Public Speaking OR
SPH 228 Group Communications.....3
*MTH 100 or Higher.....3
Humanities/Fine Arts Elective3
Natural Science Elective4
Social Science Elective3
CIS 146 Microcomputer Applications or higher3

Total22

MAJOR COURSE REQUIREMENTS

Total27-42**

*MTH 116 Mathematical Applications is not acceptable

**A minimum of 27 hours of military credit is required for eligibility. A maximum of 42 hours of military credit may be used for the degree. If military and non-traditional credits do not total 42 hours, the remainder must be made up with General Electives (100 level or above).

One-fourth of the degree (16 hours) must be completed at Calhoun Community College for residency. Distance learning courses may be used to complete residency.

TOTAL CREDITS64

MUSIC – CHURCH MUSIC

Certificate

Program Code: CT.MUS.CHURCH

CIP Code: 50.0902

This program is designed for those interested in directing musical ensembles, organizing musical activities and serving in an administrative capacity as a music minister in a religious setting. Prior musical experience as well as proficiency on an instrument or voice is strongly recommended. Students will be required to be proficient sight-readers and performers as a part of their degree program.

MUS 110 Basic Musicianship3
MUS 111 Music Theory I3
MUS 113 Music Theory Lab I1
MUS 112 Music Theory II3
MUS 114 Music Theory Lab II1
MUL 111 Class Voice I1
MUP 111 Private Voice.....1
MUL 101 Class Piano I1
MUL Performance Ensemble Electives4
MUP 101 Private Piano1
MUS 251 Introduction to Conducting.....3
MUS 270 Organization of the Church Music Program.....3
MUS 271 Church Music Literature3

TOTAL CREDITS28

MUSIC INDUSTRY COMMUNICATIONS

Associate of Applied Science Degree

Program Code: AP.MUIC

CIP Code: 50.0999

This program is for those interested in specializing in coursework which has application to the recording and publishing industries as well as to contemporary performance. Students are required to complete six credits of music performance electives and should consult a faculty advisor about this requirement.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College1
ENG 101 English Composition I3
Math elective3
SPH 107 Fundamentals of Public Speaking.....3
MIC 253 Computer Lit. for Musician I3
Humanities elective3
Natural Science/Math elective3
Social Science elective3
Total22

MAJOR COURSE REQUIREMENTS

MIC 100 Introduction to Mass Communications3
MIC 153 Introduction to Recording Technology.....3
MIC 201 Publishing for the Recording Industry3
MIC 250 Mass Communications Practicum3
MIC 251 Recording Studio Production.....3
MIC 254 Computer Literacy for the Musician II.....3
MIC 255 Digital Recording3

MIC 293 Music Notation.....	3
MUS 101 Music Appreciation.....	3
MUS 103 Survey of Pop Music	2
MUS 110 Basic Musicianship.....	3
MUS 291 Musical Acoustics.....	3
MUS 292 Song Writing	3
MUP/MUL Electives.....	6
Total	44
TOTAL CREDITS	66

NURSING ASSISTANT

The Nursing Assistant course (NAS 100) will prepare a person to work under the supervision of an RN or LPN and give direct patient care in a variety of healthcare settings. Successful completion of the course allows eligibility to write the State Nursing Assistant Certification exam through **PROMISSOR**. The Nursing Assistant curriculum at Calhoun Community College is approved by the Alabama Department of Public Health.

Program Objectives

At the successful completion of the course, the learner will be able to

1. Provide assistance with activities of daily living to clients/residents in long-term care facilities under the supervision of a licensed nurse.
2. Demonstrate effective communication techniques when dealing with clients/residents, their families and other members of the health team.
3. Be an active and effective member of the healthcare team.

Admission Requirements

Unconditional admission to the College.

Enrollment Requirements

1. It is recommended that all Nursing Assistant students be immunized against Hepatitis B. On the first day of class, students will be required to sign a waiver that they have not had or completed immunization for Hepatitis B or present proof that they have received the three (3) Hepatitis B vaccinations or proof of immunity to the hepatitis virus. (The three immunizations take at least six months to complete).
2. Present documentation of two-step Mantoux skin test (PPD), or chest x-ray, if PPD is positive, indicating he/she is free of tuberculosis.
3. Purchase of professional liability insurance through the College. Approximate cost \$22.00.

Drug Testing/Background Checks

As stipulated by the health agencies with which the Department of Nursing contracts for clinical experience, each student enrolled in any nursing clinical experiences at Calhoun Community College will undergo drug, alcohol testing and/or background checks as a precondition to beginning a clinical rotation. The fee for testing/checks is the responsibility of the student. Written guidelines for the process will be provided to the student at the beginning of the course.

Program Costs

Student will be required to provide his/her own transportation to the assigned clinical facility.

Additional expenses include:

Textbooks	\$100.00
Uniforms & Supplies.....	70.00
Malpractice Insurance (per year)	22.00
Drug Testing	45.00
CPR Class	30.00
Certification Exam through PROMISSOR.....	95.00

Tuition (See Semester Class Schedule)

NURSING/ADN:

Please visit the website listed below for admission requirements, application process and downloading application form as well as for information regarding curriculum options in Nursing. <http://www.calhoun.edu/distance/internet/hped/nursing/prospective.html> or link from the homepage: www.calhoun.edu then click on Programs of Study, then click Nursing, on the right, click prospective students.

Associate of Applied Science Degree

Program Code: AP.NUR

CIP Code: 51.1601

This program is designed to educate individuals in providing nursing care to patients of all ages in a variety of health care settings. Nursing is a collaborative and/or independent process in which the nurse interacts with individuals applying documented, scientific knowledge through the use of the nursing process. Nursing courses provide sequential nursing knowledge, experience and skills for the safe practice of nursing. Ethical and legal accountability are stressed. The program can be completed in five (5) semesters for a total of 72 semester hours. Nursing courses must be taken in sequence as offered. General education courses may be completed early, or otherwise must be taken as sequenced in the curriculum.

The Calhoun Nursing program has the full approval of the Alabama Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC). Accreditation information regarding the nursing program may be obtained from the National League for Nursing Accrediting Commission, 61 Broadway 33rd Floor, New York, NY 10006. Telephone 1-800-669-1656, ext. 153.

The Associate of Applied Science Degree is awarded by Calhoun Community College to the student who completes all requirements of the nursing program. The graduate will be eligible to apply to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Completion of the academic program in nursing in no way assures the student of licensure. Legal requirements for licensure may be found in the **Alabama Board of Nursing Administrative Code**. Applicants who have been found guilty of any offenses listed in the **Code** may be denied licensure by the Alabama Board of Nursing and any other state board of nursing. The Alabama Board of Nursing, as well as other state boards of nursing, has the power to deny eligibility for licensure to any candidate who is guilty of fraud or deceit in attempting to procure a licensure; has been convicted of a felony; is guilty of a crime involving moral turpitude or gross immorality that

Programs of Study

would tend to bring reproach upon the nursing profession; is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit forming drugs to such an extent as to render him or her unsafe or unreliable as a licensee; has been convicted of any violation of a federal or state law relating to controlled substances; is mentally incompetent; is guilty of unprofessional conduct of a character likely to deceive, defraud or injure the public in matters pertaining to health or has willfully or repeatedly violated any of the provisions of this article as defined by board rules and regulations.

Upon application for licensure, the individual will be required to answer the following questions found on the application:

Have you ever been arrested or convicted of a criminal offense other than a minor moving traffic violation? YES____ NO____

Have you within the last 5 years abused drugs/alcohol or been treated for dependency to alcohol or illegal chemical substances?
YES____ NO____

Have you ever been arrested or convicted for driving under the influence of drugs/alcohol? YES____ NO____

Have you within the last 5 years received inpatient or outpatient treatment or been recommended to seek treatment for mental illness?
YES____ NO____

Have you ever had disciplinary action or is action pending against you by any state board of nursing? YES____ NO____

*Have you ever been placed on a state **AND/OR** federal abuse registry?*
YES____ NO____

*Have you ever been court-martialed/disciplined **OR** administratively discharged by the military?* YES____ NO____

Any applicant who answers “YES” to the questions regarding criminal conviction, alcohol/drug abuse/treatment or mental illness **must** provide the Alabama Board of Nursing with a full explanation and the appropriate court/treatment records must accompany the application for examination and licensure. If the documents are not received along with the application, the applicant can expect to be delayed in taking the examination. By a full explanation, the Board expects more than a statement naming the crime for which the applicant was convicted. The explanation should contain a full recitation of who and why the crime occurred and the applicant’s history since the crime. If the applicant has indicated a history of mental illness or chemical dependency, a full explanation including treatment records, urine screens, doctor’s statements, etc., must be received with the application.

Applicants also should be aware that they must disclose arrests that did not result in convictions and attach those court records. Misdemeanors also must be disclosed. These include checks written on accounts with insufficient funds and DUI. Minor traffic violations are excluded. If the Board of Nursing later learns of arrests or convictions not originally disclosed, such will be considered to be fraud and deceit in procuring a license and disciplinary action will be forthcoming.

The Alabama Board of Nursing will determine whether or not the applicant may write the examination for licensure and be licensed as a registered nurse. Any questions regarding this matter should be directed to the Director of the Nursing Department.

Be advised that a criminal and/or drug history could result in denial of permission to take the licensure examination. These same legal requirements or others may apply to taking the NCLEX-RN in other states.

DRUG TESTING/BACKGROUND CHECKS

As stipulated by the health agencies with which the Department of Nursing contracts for clinical experience, each student accepted in any nursing program at Calhoun Community College will undergo drug and alcohol testing and many undergo background checks as a precondition to beginning a clinical rotation. The fees for the above are the responsibility of the student. Written guidelines for the screening process will be provided to the student upon their acceptance into the program.

POLICIES AND CURRICULUM

Policies/Curriculum for the Associate Degree Nursing Program are subject to change at any time. Written notice will be given to all students enrolled in nursing courses prior to implementation of change.

ASSOCIATE DEGREE NURSING BASIC CURRICULUM

SEMESTER I (Fall)

Course	Semester Hours
MTH 116* Mathematical Applications	3
BIO 201 Human Anatomy and Physiology I.....	4
NUR 102 Fundamentals of Nursing	6
NUR 103 Health Assessment	1
NUR 104 Introduction to Pharmacology	1
Total	15

***NOTE: A higher math may be accepted with approval**

***Prerequisite:** Satisfactory score on the COMPASS math placement or ACT/SAT tests or appropriate developmental coursework.

SEMESTER II (Spring)

ENG 101* English Composition I	3
BIO 202 Human Anatomy and Physiology II	4
NUR 105 Adult Nursing.....	8
NUR 106 Maternal and Child Nursing.....	5
Total	20

***Prerequisite:** Satisfactory score on the COMPASS English placement or ACT/SAT tests or appropriate developmental coursework.

SEMESTER III (Summer)

PSY 200 General Psychology	3
BIO 220 General Microbiology	4
NUR 201 Nursing Through the Lifespan I	5
Total	12

SEMESTER IV (Fall)

SPH 107 Fundamentals of Public Speaking OR SPH 116 Interpersonal Communication	3
PSY 210 Human Growth and Development.....	3
NUR 202 Nursing Through the Lifespan II	6
Total	12

SEMESTER V (Spring)

HUMANITIES ELECTIVE (Art, Music, Literature, Religion, Philosophy, Foreign Language, or Drama/Theatre Course)	3
NUR 203 Nursing Through the Lifespan III	6
NUR 204 Transition into Nursing Practice	4
Total	13

TOTAL CREDITS72

Nursing courses are offered only on the Decatur campus.

**ASSOCIATE DEGREE NURSING
PART-TIME EVENING CURRICULUM
(Alternative Scheduling)**

SEMESTER I (Fall)

NUR 103 Health Assessment	1
NUR 104 Introduction to Pharmacology	1
BIO 201 Human Anatomy & Physiology I	4
MTH 116 Mathematical Applications*	3
Total	9

*NOTE: A higher math may be accepted with approval

*Prerequisite: Satisfactory score on the COMPASS math placement of ACT/SAT tests or appropriate developmental coursework.

SEMESTER II (Spring)

NUR 102 Fundamentals of Nursing	6
BIO 202 Human Anatomy & Physiology I	4
Total	10

SEMESTER III (Summer)

NUR 106 Maternal and Child Nursing	5
BIO 220 General Microbiology	4
Total	9

SEMESTER IV (Fall)

NUR 105 Adult Nursing	8
ENG 101*English Composition I	3
NUR 201 Nursing through the Lifespan I	5
Total	16

*Prerequisite: Satisfactory score on the COMPASS English placement or ACT/SAT test or appropriate development coursework.

SEMESTER V (Spring)

NUR 202 Nursing Through the Lifespan II	6
SPH 107 Fundamentals of Public Speaking OR SPH 116 Interpersonal Communication	3
PSY 200 General Psychology	3
Total	12

SEMESTER VI (Summer)

NUR 203 Nursing Through the Lifespan III	6
PSY 210 Human Growth and Development	3

Total9

SEMESTER VII (Fall)

NUR 204 Transition into Nursing Practice	4
HUMANITIES ELECTIVE (Art, Music, Literature, Religion, Philosophy, Foreign Language, or Drama/Theatre Course)	3
Total	7

TOTAL CREDITS72

ASSOCIATE DEGREE NURSING

Admission Procedures and Requirements

Minimum admission standards for the Associate Degree Nursing program include

1. Unconditional admission to the College.
2. Receipt of completed application for the Associate Degree nursing Program January 5 - April 1 for the BASIC curriculum and for the PART-TIME EVENING PROGRAM.
3. A minimum of a 2.5 GPA is required on the last 24 hours of credit completed.

Student has 24 or more hours at the graduate level: compute GPA based on the most recent 24 hours at graduate level work; undergraduate work is ignored.

Student has less than 24 hours at the graduate level: compute the GPA based on the most recent 24 hours of undergraduate work; graduate level work is ignored.

4. A minimum of 2.50 high school GPA for students without prior college work (GED acceptable in lieu of high school transcript).
5. Eligibility for:
 - a. English 101 and Math 116 as determined by college policy, and
 - b. BIO 201 during the first term of nursing courses.
6. Good standing with the College.
7. Meeting the essential functions or technical standards required for nursing.
8. A score of 76 or higher on the COMPASS Reading Examination (or related ACT Reading Score of 17 or higher).

Admission to the Associate Degree Nursing Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. **Meeting minimal requirements does not guarantee acceptance.**

Calculation of Points for Students Meeting Minimum Admission Standards:

After meeting all minimum requirements, applicants are rank-ordered using a point system based on:

- (1) COMPASS Reading scores;
- (2) Points from selected college courses (i.e., BIO 201, BIO 202, BIO 220) or selected high school courses (i.e. Algebra II or higher level math, highest level Biology, Chemistry); and
- (3) Additional points (maximum 11): Please refer to the nursing web-site for breakdown of point distribution. Policy subject to change yearly as dictated by college policy and requirements from the Department of Postsecondary Education.

1. Compass Reading Score (Maximum of 99 points)

COMPASS and ACT scores must be within the past 3 years for consideration. Students not meeting the 76 minimum should seek advisement regarding retesting policies and/or remediation requirements. If student has taken the ACT, the ACT **Reading** score can be used to derive the related Compass score using the crosswalk scores provided by ACT.

Programs of Study

2. Points for Grades in Selected College Courses Maximum points 90

	A	B	C
BIO 201	30	20	10
BIO 202	30	20	10
BIO 220	30	20	10

OR

Points for Grades in Selected High School Courses Maximum points 90

	A	B	C
Highest Level Biology (incl. A&P)	30	20	10
Algebra II or Higher Level Math	30	20	10
Chemistry	30	20	10

3. Additional points may be awarded to students as determined by individual college policy and procedures.

A TOTAL OF 200 POINTS ARE POSSIBLE WITH THESE SELECTION CRITERIA.

Nursing Application Process

Application forms may be obtained from the Nursing Department (256/306-2804 or 306-2794) or by writing to the Nursing Department, Calhoun Community College, P. O. Box 2216, Decatur, Alabama 35609-2216.

Prospective students can access Admission Requirements and Applications for the nursing programs by going to www.calhoun.edu. From the homepage, click on ACADEMICS. Under the Division of Health and Natural Sciences, click Nursing, on the left-side menu, click PROSPECTIVE STUDENTS.

Application must be submitted by April 1 for consideration for fall class.

Applicants may apply for fall admission from January 5th through April 1st, provided admission criteria are met.

- Applications must be resubmitted annually. A waiting list is no longer maintained.

SELECTION PROCESS

Since class size is limited, the Admission Committee will evaluate each applicant's academic performance and select applicants with the strongest academic record.

General education core courses are open to any student who meets Calhoun's admission requirements. A grade of "C" or above will be required for passing each course required for the AD Nursing Program. The applicant must maintain at least a "C" average (2.0 grade point average on a 4.0 scale) on all courses taken and/or transferred to Calhoun.

Once enrolled in the program, students must take courses sequentially as outlined. Students must successfully pass each nursing course (NUR Prefix) to progress in the program.

Transfer Students

Applicants desiring to transfer into Calhoun's Associate Degree Nursing program who have taken nursing courses will be considered on an individual basis and will be required to meet requirements of the nursing program. The applicant must

1. Meet the entry and progression requirements of the institution and the nursing program.
2. Provide evidence that all required general education and nursing courses maintain a grade of C or better taken at another institution and maintain a 2.0 GPA or the last 24 hours attempted.
 - a. Alabama Community College System Standardized Nursing Curriculum courses will be transferred without review of the course syllabus.
 - b. Nursing courses from any other institution are accepted only after review by the accepting institution to ensure content consistency.
3. Must be a student in good standing and eligible to return to the previous nursing program.
4. Provide a letter of recommendation from the Dean/Director of the previous program.
5. Complete at least 25% of the total program at the accepting institution.
6. Acceptance of transfer students into nursing programs is limited by the number of faculty and clinical facilities available. Meeting minimal requirements does not guarantee acceptance.
7. Validation of skills and knowledge may be required to determine program placement.

ENROLLMENT REQUIREMENTS

It is recommended that all nursing students be immunized against Hepatitis B prior to entering the first nursing course. At the time of registration for the first nursing course, students will be required to present proof that they have received the three (3) Hepatitis B vaccinations or proof of immunity to the hepatitis virus. (The three immunizations take at least six months to complete). Students who choose not to have these immunizations must sign a form indicating their refusal of the vaccinations prior to being allowed to register for nursing. Additionally, the student must have the following documentation at registration for Semester I to complete the enrollment process in the Associate Degree Nursing program

1. Documentation of current cardiopulmonary resuscitation (CPR) course completion. (American Heart Association Health Care Provider or American Red Cross Health Care Provider)
2. A current Student Health Form that has been completed by a licensed physician or nurse practitioner. (Form will be furnished when student is notified of admission into the Nursing program.)
3. Documentation of two-step Mantoux skin test (PPD), or chest x-ray, if PPD is positive, indicating he/she is free of tuberculosis.
4. Verification of immunization for Hepatitis B and/or show positive antibodies, or sign a waiver.
5. Documentation of immunity to rubella (German measles), immunization record or titer level.
6. Proof of purchase of professional liability insurance through the College as outlined by the Nursing Department at Calhoun Community College.
7. As stipulated by the health agencies with which the Department of Nursing contracts for clinical experience, each student

accepted into any nursing program at Calhoun Community College will undergo drug and alcohol testing as a precondition to beginning a clinical rotation. The fee for testing is the responsibility of the student. Written guidelines for the screening process will be provided to the student upon his/her acceptance into the program.

8. Students will be expected to perform the essential functions listed as follows.

**The Alabama Community College System
Nursing Programs
Essential Functions**

The Alabama Community College System endorses the American's with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.

The essential functions delineated below are necessary for nursing program admission, progression and graduation and for the provision of safe and effective nursing care. The essential functions include but are not limited to the ability to

1) Sensory Perception

- a) Visual
 - i) Observe and discern subtle changes in physical conditions and the environment.
 - ii) Visualize different color spectrums and color changes
 - iii) Read fine print in varying levels of light
 - iv) Read for prolonged periods of time
 - v) Read cursive writing
 - vi) Read at varying distances
 - vii) Read data/information displayed on monitors/equipment
- b) Auditory
 - i) Interpret monitoring devices
 - ii) Distinguish muffled sounds heard through a stethoscope.
 - iii) Hear and discriminate high and low frequency sounds produced by the body and the environment
 - iv) Effectively hear to communicate with others
- c) Tactile
 - i) Discern tremors vibrations, pulses, textures, temperature, shapes, size, location and other physical characteristics.
- d) Olfactory
 - i) Detect body odors and odors in the environment

2) Communication/Interpersonal Relationships

- a) Verbally and in writing, engage in a two-way communication and interact effectively with others, from variety of social, emotional, cultural and intellectual backgrounds
- b) Work effectively in groups
- c) Work effectively independently
- d) Discern and interpret nonverbal communication
- e) Express one's ideas and feelings clearly
- f) Communicate with others accurately in a timely manner
- g) Obtain communications from a computer

3) Cognitive/Critical Thinking

- a) Effectively read, write and comprehend the English language
- b) Consistently and dependably engage in the process of critical thinking in order to formulate and implement safe and ethical nursing decisions in a variety of health care settings
- c) Demonstrate satisfactory performance on written examinations including mathematical computations without a calculator
- d) Satisfactorily achieve the program objectives

4) Motor Function

- a) Handle small delicate equipment/objects without extraneous movement, contamination or destruction
- b) Move, position, turn, transfer, assist with lifting or lift and carry clients without injury to clients, self or others
- c) Maintain balance from any position
- d) Stand on both legs
- e) Coordinate hand/eye movements
- f) Push/pull heavy objects without injury to client, self or others
- g) Stand, bend, walk and or sit for 6-12 hours in a clinical setting performing physical activities requiring energy without jeopardizing the safety of the client, self or others
- h) Walk without a cane, walker or crutches
- i) Function with hands free for nursing care and transporting items
- j) Transport self and client without the use of electrical devices
- k) Flex, abduct and rotate all joints freely
- l) Respond rapidly to emergency situations
- m) Maneuver in small areas
- n) Perform daily care functions for the client
- o) Coordinate fine and gross motor hand movements to provide safe effective nursing care
- p) Calibrate/use equipment
- q) Execute movement required to provide nursing care in all health care settings
- r) Perform CPR and physical assessment
- s) Operate a computer

5) Professional Behavior

- a) Convey caring, respect, sensitivity, tact, compassion, empathy, tolerance and a healthy attitude toward others
- b) Demonstrate a mentally healthy attitude that is age appropriate in relationship to the client
- c) Handle multiple tasks concurrently
- d) Perform safe, effective nursing care for clients in a caring context
- e) Understand and follow the policies and procedures of the College and clinical agencies
- f) Understand the consequences of violating the student code of conduct
- g) Understand that posing a direct threat to others is unacceptable and subjects one to discipline
- h) Meet qualifications for licensure by examination as stipulated by the Alabama Board of Nursing
- i) Not to pose a threat to self or others
- j) Function effectively in situations of uncertainty and stress inherent in providing nursing care
- k) Adapt to changing environments and situations
- l) Remain free of chemical dependency
- m) Report promptly to clinicals and remain for 6-12 hours on the clinical unit
- n) Provide nursing care in an appropriate time frame
- o) Accept responsibility, accountability, and ownership of

Programs of Study

- one's actions
- p) Seek supervision/consultation in a timely manner
- q) Examine and modify one's own behavior when it interferes with nursing care or learning

Transfer students must meet the same requirements for immunizations, student health examination, evidence of current CPR course completion, drug testing and professional liability insurance as other Calhoun Associate Degree Nursing students.

PROGRAM REQUIREMENTS

The following requirements apply to continued progression in the program.

Standards of Conduct

The nursing student shall comply with legal, moral, and legislative standards which determine acceptable behavior of the nurse and shall avoid those behaviors which may be cause for denial of license to practice as a registered nurse, in accordance with the Alabama Law Regulating Practice of Registered and Practical Nursing and the Alabama Board of Nursing Administrative Code.

When there is probable cause, the Nursing Department faculty reserve the right to require a prospective student, a student currently enrolled in the program, or a returning student to submit to psychological testing/counseling, drug screening, and/or a physical examination by a licensed physician at the student's expense and to submit a report of the outcome to the nursing faculty. The Nursing Department will provide a specific form for this purpose, when applicable. All reports may be reviewed by the Nursing Department faculty to determine if a student may be admitted, readmitted, or retained in the nursing program.

In addition, all students admitted to the program are expected to abide by the policies of the COLLEGE CATALOG and the POLICY MANUAL for Associate Degree Nursing students.

Academic Progression

The following standards must be maintained by each student in order for her/him to progress in the nursing program:

1. Maintain a grade of C or better in all required general education and nursing courses and maintain a 2.0 cumulative GPA.
2. Unless completed previously, students must complete all required general education courses according to The Alabama Community College System Nursing Education curriculum. Any exceptions must be approved by the chairperson of the Nursing Department.
3. Maintain ability to meet essential functions for nursing with or without reasonable accommodations.
4. Successfully complete the program within 48 months from initial semester for ADN students
5. Maintain current CPR at the health care provider level.
6. If a student withdraws or makes a D or an F in a nursing course, the student cannot progress in the nursing course sequence until the course is repeated successfully. Course repetition will be based on instructor availability and program resources.
7. Students whose progression through the nursing program is interrupted and who desire to be reinstated in the program must schedule an appointment with the chairperson of the Nursing Department to discuss reinstatement. In order to be reinstated,

a student must:

- a. Apply for readmission to the College if not currently enrolled;
 - b. Submit a letter to the nursing program Admissions and Progression Committee requesting reinstatement;
 - c. Submit letter of request in a timely manner so that reinstatement would occur within one year from the term of withdrawal or failure;
 - d. Demonstrate competency in all previous nursing courses successfully completed;
 - e. Adhere to nursing curriculum or program policies and procedures effective at the point of reinstatement.
8. Reinstatement to the nursing program is not guaranteed.
 9. Reinstatement may be denied due to, but not limited to, any of the following circumstances:
 - a. Space unavailability of a course in which the student wishes to be reinstated. (Students in regular progression have enrollment priorities for clinical sites.)
 - b. Grade point average is less than 2.0 from courses completed at current institution.
 - c. Refusal by clinical agencies to accept the student for clinical experiences.
 - d. Failure to demonstrate competency in all previous nursing courses successfully completed.
 - e. Over twelve months have elapsed since the student was enrolled in a nursing course.
 - f. Student has been dismissed from the program.
 10. A total of two unsuccessful attempts (D, F, or withdrawal) in nursing courses will result in dismissal from the nursing program. Withdrawal and/or a D or F in one or more courses in a term will be considered one attempt.
 11. If a student has been dismissed from the associate degree nursing program, the student may apply for admission to the practical nursing program. If a student has been dismissed from the mobility program, the student may apply for admission to the generic program.
 12. A student who has been dismissed from a specific program (ADN/PN/Mobility) can apply for admission as a new student to any nursing program within the Alabama Community College System, provided
 - a. the student meets current entry requirements;
 - b. at least two years have elapsed since the student's dismissal from a specific program; and
 - c. the student was not dismissed from the previous program for disciplinary reasons or for unsafe/unsatisfactory client care in the clinical area.
 13. Students dismissed from the previous program for disciplinary reasons and/or unsafe/unsatisfactory client care in the clinical area will not be allowed reinstatement to the nursing program.
 14. Students receiving an "I" in a NUR course must complete all course requirements before the time to start clinical experience in the next semester. Any exceptions made must have the approval of the Department Chairperson.

A current Student Health Examination form on all students must be maintained on file throughout the program.

Evidence of annual cardiopulmonary resuscitation (CPR) course completion must be maintained by all students throughout the program.

Nursing students must have professional liability insurance coverage as outlined by the Nursing Department of Calhoun Community College.

Completion of the ADN Program must be within 48 months of admission to the first NUR nursing course. If the program is not completed within the 48 month time frame, the student must follow the procedure for admission policy. All previously taken NUR courses must be repeated. The date of the first NUR course will be considered to be the date the course that it is equivalent to was taken.

Grading

The grading scale for NUR courses is as follows:

A minimum letter grade of "C" is required in all nursing (NUR) courses for passing and progressing to the next nursing course. In order to receive a letter grade of "C," a grade of 75 or above will be required for any nursing course taken.

Readmission Requirements

Eligible students desiring to be readmitted to the nursing program must contact the secretary of the Nursing Department (256) 306-2794 to make an appointment with a nursing faculty advisor to discuss readmission plans. The student should obtain a current, unofficial copy of his/her transcript from the records office to bring with him/her to the meeting with the nursing faculty advisor. For readmission into the fall and summer semesters, the Request for Readmission form must be received in the Nursing Department office by April 15th prior to the fall semester to be readmitted. For readmission into the spring semester, the Request for Readmission form must be received in the Nursing Department office by October 15th prior to the spring semester to be readmitted. All readmitted students are accepted in the nursing program based on

1. Fulfillment of admissions criteria.
2. Availability of class space.

Effective fall semester 2003, students who have withdrawn from NUR 102, Fundamentals of Nursing, may re-enter the nursing program **ONE TIME** only following re-admission advising. If the student withdraws from NUR 102 a second time or does not enter after one (1) readmission advising conference, the student will be required to go through the application process to the nursing program as a beginning student.

A student who has been terminated from the nursing program due to disciplinary action and who wishes to be readmitted to the program must request in writing a hearing before a nursing faculty review committee. The outcome of this hearing will determine eligibility for readmission.

Program Costs

After entry into the program, the student will be required to

1. purchase Nurse Pacs (equipment/supplies) through the Calhoun College Bookstore.
2. provide his/her own transportation to area clinical facilities.

Additional expenses include:

Textbooks (Nursing)	\$700.00
Uniforms & Supplies	175.00
Malpractice Insurance (per year)	25.00
Drug Testing	45.00
Nurse Pacs	75.00
Total Testing	80.00 each semester
Graduation Pictures	35.00
National Council Licensure Examination	200.00
Licensing Fee	85.00
Alabama Temporary Licensing Fee (Optional)	50.00
Graduation Fees	35.00
CPR	35.00
Health Exams, PPD, and Immunizations (Cost Varies)	
Tuition (See General Information Section in this Catalog)	
Background testing	60.00

Graduation

To graduate, a student must successfully complete the prescribed program of study with a 2.00 overall Grade Point Average (GPA).

PHILOSOPHY AND OBJECTIVES

The philosophy of the nursing programs is consistent with the mission, goals and objectives of The Alabama Community College System. The programs provide curricula to develop the knowledge, skills, and abilities necessary for entry level employment in practical and professional nursing. The nursing faculty endorses the following beliefs:

Maslow's theory is the foundation for the program of learning. According to Maslow, all individuals have similar needs arranged in a hierarchy with higher needs emerging as basic physiological needs are met. Individuals are unique biological, psychosocial and spiritual beings who strive to meet holistic needs. Each individual has the right to make informed decisions about one's health in a technologically changing society. Society, a complex system that influences culture, values, and beliefs, provides direction and meaning to an individual's experiences throughout the lifespan.

Health, which is individually perceived, exists when needs are met. Ranging on a continuum from highest level wellness to death, health is a dynamic state. The goals of health care are to promote, maintain, and restore health.

Nursing is an art, as well as, a science in which the holistic needs of the individual are met through utilization of the nursing process in a variety of settings. The nursing process incorporates scientific principles, interpersonal and psychomotor skills. The practice of nursing takes place in an ever changing health care system and requires caring, critical thinking, competency, legal/ethical accountability, dedication to an evolving body of knowledge, life long learning and client advocacy.

The teaching-learning process is a shared responsibility between faculty and students where faculty serve as facilitators of learning. The successful teaching-learning process requires an environment that promotes learning, considers the needs of the individual, and provides opportunities for student participation and educational goal attainment. The learning process is based on principles of critical thinking and is enhanced by the presentation of information from simple to complex. Learning is achieved when there is evidence of a change in behavior within the cognitive, affective, and/or psychomotor domains. Individuals have the right to achieve self-actualization and society provides educational opportunities.

Nursing education is a learner-centered process which combines general education and nursing courses to prepare the individual for the practice of nursing. Incorporating a program of learning, a variety

Programs of Study

of instructional methodologies, and available resources, nursing education fosters competency, accountability and continued professional development. Learning is a life long process which promotes professionalism and is beneficial for the learner and society.

Threads Integrated Throughout Curriculum

1. Critical Thinking
2. Communication
3. Nutrition
4. Pharmacology
5. Cultural Diversity
6. Lifespan
7. Pathophysiology
8. Technology
9. Teaching / Learning
10. Legal / Ethical
11. Roles of the Nurse

PROGRAM OBJECTIVES

At completion of program, the associate degree nursing graduate will be able to

1. Demonstrate proficiency in performing advanced nursing skills for individuals with health alterations in a variety of settings.
2. Apply therapeutic communication techniques in providing advanced nursing care for clients throughout the lifespan.
3. Apply foundational knowledge of the nursing process in providing advanced nursing care for clients throughout the lifespan.
4. Utilize critical thinking skills in providing collaborative care for clients with selected health alterations in a variety of settings.
5. Formulate a teaching/learning plan for culturally diverse clients with selected health alterations in a variety of settings.
6. Demonstrate competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process.
7. Examine relevant technology for client care and documentation.
8. Demonstrate professional behaviors and roles of a registered nurse upon entry into practice.

CAREER OPPORTUNITIES

Graduates of the Calhoun Associate Degree Nursing program have been employed by hospitals, physicians' offices, industry, nursing homes, long-term health care facilities, and other community health care agencies. Over the past three years, 100% of the students graduating from the program who sought employment have secured employment as graduate nurses at the time of graduation. The starting base salary range for a new graduate Associate Degree nurse is approximately \$15.00-\$18.00 an hour. The starting base salary range for a new Practical Nurse is approximately \$11.00 - \$14.50 an hour. Additional information related to occupational outlook may be obtained from the Calhoun Career Planning and Job Placement Center, located in the Chasteen Student Center on the Decatur campus. References available include the following:

OCCUPATIONAL OUTLOOK HANDBOOK, updated annually

FINNEY COMPANY OCCUPATIONAL BRIEFS, updated as updates are available

DICTIONARY OF OCCUPATIONAL TITLES, updated as updates are available

CAREERS PLACEMENT COUNCIL SALARY SURVEYS, quarterly updates received

CAREER CLUSTER FILE, Careers, Inc., updated as updates are made available

COLLEGE PLACEMENT ANNUALS, provided yearly through College Placement Council membership

NURSING/ADN: CAREER MOBILITY

Associate of Applied Science Degree

Program Code: AP.NURCM

CIP Code: 51.1601

This nursing curriculum is designed for those persons who are graduates of a practical nursing program and who desire to pursue further study toward an Associate in Applied Science degree in nursing. The program is accredited by the National League for Nursing Accreditation Commission and has the full approval of the Alabama Board of Nursing.

Upon satisfactory completion of the requirements of the Nursing program, the graduate will be eligible to apply to write the National Council Licensure Examination and apply to a state Board of Nursing for licensure as a registered nurse. Legal requirements for licensure may be found in the Alabama Board of Nursing Administrative Code. Applicants who have been found guilty of any offenses listed in the Code may be denied licensure by the Alabama Board of Nursing. Any applicant who has had a criminal conviction, alcohol and/or drug abuse/treatment or mental illness must provide the Alabama Board of Nursing with a full explanation and the appropriate court/treatment records at the time of application for examination and licensure. The Alabama Board of Nursing will determine whether or not the applicant may write the examination for licensure and be licensed as a registered nurse.

General education and nursing courses must be taken in the sequence listed unless general education courses are taken prior to the semester in which they are required. All students must take the nursing courses as listed in this Catalog regardless of when they begin course work at this college.

Nursing courses are offered only on the Decatur campus.

POLICIES/CURRICULUM

Policies/curriculum for the Nursing Department are subject to change at any time. Written notice will be given to all students enrolled in NUR courses prior to implementation of policy/curriculum changes. Program objectives for the Career Mobility Program are the same as those listed under the Basic Program.

Prerequisite Courses (Prior to NUR 201):

- MTH 116 or Higher Level Mathematical Applications (3 credit hours)
- BIO 201 Human Anatomy and Physiology I (4 credit hours)
- BIO 202 Human Anatomy and Physiology II (4 credit hours)
- ENG 101 English Composition (3 credit hours)

Total Prerequisites:14 credit hours

FIRST TERM (SPRING)

NUR 200 Nursing Career Mobility Assessment6

SECOND TERM (SUMMER)

PSY 200 General Psychology	3
BIO 220 General Microbiology	4
NUR 201 Nursing Through the Lifespan I	5
Total	12

THIRD TERM (FALL)

SPH 107 Fundamentals of Public Speaking OR SPH 116 Introduction to Interpersonal Communication	3
PSY 210 Human Growth and Development	3
NUR 202 Nursing Through the Lifespan II	6
Total	12

FOURTH TERM (SPRING)

Humanities Elective	3
NUR 203 Nursing Through the Lifespan III	6
NUR 204 Role Transition for the Registered Nurse	4
Total	13

TOTAL57

Non-traditional Credits15

TOTAL CREDITS72

ADMISSION POLICY

Minimum admission standards for the Associate Degree Nursing Program include:

1. Unconditional admission to the college.
2. Receipt of completed application for the Career Mobility Program by **October 15th**.
3. A minimum of **2.50** cumulative Grade Point Average (GPA) for students with previous college work.
4. Completion of prerequisite courses before taking NUR 201 (MTH 116 or higher math, BIO 201 & 202, ENG 101).
5. Good standing with college.
6. Meeting the essential functions or technical standards required for nursing.
7. A score of **76 or higher** on the **COMPASS** Reading Examination (or related ACT Reading Score of 17 or higher).

Admission to the Associate Degree Nursing Career Mobility Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. Meeting minimum requirements does not guarantee acceptance.

Calculation of Points for Students Meeting Minimum Admission Standards:

After meeting all minimum requirements, applicants are rank-ordered using a point system based on

- (1) COMPASS Reading scores;
- (2) Points from selected college courses (i.e., BIO 201, BIO 202, BIO 220) or selected high school courses (i.e. Algebra II or higher level math, highest level Biology, Chemistry); and
- (3) Additional points may be awarded to students as determined by individual college policy and procedures.

1. Compass Reading Score (Maximum of 99 points)

COMPASS and ACT scores must be within the past 3 years for consideration. Students not meeting the 76 minimum should

seek advisement regarding retesting policies and/or remediation requirements. If student has taken the ACT, the ACT **Reading** score can be used to derive the related Compass score using the crosswalk scores provided by ACT.

2. Points for Grades in Selected College Courses

Maximum points 90

	A	B	C
BIO 201	30	20	10
BIO 202	30	20	10
BIO 220	30	20	10

OR

Points for Grades in Selected High School Courses

Maximum points 90

	A	B	C
Highest Level Biology (incl. A&P)	30	20	10
Algebra II or Higher Level Math	30	20	10
Chemistry	30	20	10

- 3. Additional points (Maximum 11)** – Please refer to the nursing web-site for breakdown of point distribution. Policy subject to change yearly as dictated by college policy and requirements from the Department of Postsecondary Education.

A TOTAL OF 200 POINTS ARE POSSIBLE WITH THESE SELECTION CRITERIA.

Please note the following additional Career Mobility requirements:

- Graduates of the approved Alabama Community College System PN standardized curriculum (Calhoun graduates of August 2005, and after) may be eligible to enter the ADN program during the third (3rd) semester without taking NUR 200 if graduation occurred within the previous two years. All other Licensed Practical Nurses must successfully complete NSG 200.
- For progression into NUR 201, students must have documentation of employment as an LPN for a minimum of 500 clock hours within the 12 months prior to admission. Employer verification will be required for this criteria.
- All students must have a valid unencumbered Alabama practical nurse license.

Students must satisfactorily pass knowledge assessments within two attempts before attempting skill validations. Students are given two attempts for all assessments. Students must pass both knowledge assessments and all skill validations to be considered for eligibility into the ADN program. Satisfactory completion of knowledge and skill validations is on a pass/fail standard set by the Alabama Community College System.

Students are expected to utilize relevant technology in preparing for assessments.

Students applying for admission to career mobility tracks will be assessed and placed in rank order prior to admission into NUR 200.

For students who completed the Standardized ACS Nursing curriculum more than 2 years prior to application for admission to Career Mobility or for students who have graduated from any other PN curriculum. There will be a limited number

Programs of Study

of available slots. The number of slots available in NUR 200 and NUR 201 will be at the discretion of the college.

For students completing the Standardized ACS Nursing curriculum within the previous 2 years. Students must meet progression criteria for NUR 201. The number of slots available will be at the discretion of the college. *If you have completed LPN curriculum in the last two years, NUR 200 will not be required. Each student will still be required to meet the 500 work hours.*

***Note: Refer to policies under Associate Degree Nursing.**

PHYSICAL THERAPIST ASSISTANT

Associate of Applied Science Degree

Calhoun Community College is seeking accreditation by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association (1111 North Fairfax Street, Alexandria, VA 22314; phone; 703-706-3245; accreditation@apta.org). The program has submitted an *Application for Candidacy*, which is the formal application required in the pre-accreditation stage. Submission of this document does not assure that the program will be granted Candidate for Accreditation status nor does it assure that the program will be granted Accreditation.

Program Code: AP.PTA

CIP Code: 51.0806

The Physical Therapist (PTA) Associate of Applied Science Degree is designed to provide courses in general education and physical therapy knowledge and skills to fulfill the objectives of the PTA program. The program is designed to be completed in five terms. Coursework is progressive, requiring a grade of "C" or higher in each PTA and required general education academic course. A final comprehensive examination is required before program completion, and the student must pass this examination with a grade of "C" or higher to graduate.

On successful completion of the program, students are awarded an Associate of Applied Science Degree in PTA and are eligible to apply for the state licensing examination, which must be passed before being eligible to practice. The licensing examination in Alabama and many other states will also include a specific test on jurisprudence issues for that state.

PTA students are required to comply with legal, moral, and legislative standards in accordance with **Rule No. 700-X-2-02 of the Alabama State Board of Physical Therapy Administrative Code**, which states the following:

The Board shall refuse licensure to any applicant who is of other than good moral character. The determination as to what constitutes other than good moral character and reputation shall be solely within the judgment of the Board. Each applicant shall be required to submit references from two professional sources addressing, but not being limited to, moral character. These references shall be submitted on forms prescribed by the Board and shall be mailed to the executive director. Grounds for refusal may include, but are not limited to: (1) history of using drugs or intoxicating

liquors to an extent that affects professional competency, (2) conviction of a felony or crime involving moral turpitude, (3) attempt to obtain or obtaining a license by fraud or deception, (4) guilt of conduct unbecoming a person registered as a physical therapist or licensed as a physical therapist assistant or of conduct detrimental to the best interest of the public, and (5) conviction of violating any state or federal narcotic law.

ACCREDITATION

The PTA program is seeking accreditation by the Commission on Accreditation of Physical Therapy Education.

ADMISSION

This program is under development and the admission requirements and procedures are yet to be determined.

GENERAL EDUCATION CORE REQUIREMENTS

ORI 101 Orientation to College.....	1
ENG 101 English Composition I	3
SPH 107 Fundamentals of Public Speaking OR	
SPH 116 Introduction to Interpersonal Communication	3
CIS 146 Microcomputer Applications.....	3
MTH 100 Intermediate College Algebra	3
PSY 200 General Psychology	3
PSY 210 Human Growth and Development	3
BIO 201 Human Anatomy and Physiology I.....	4
BIO 202 Human Anatomy and Physiology II	4
Elective (Choose from Humanities, Religion, Foreign	
Language, Fine Arts)	3
Total	30

MAJOR COURSE REQUIREMENTS

PTA 180 Medical Terminology OR	
EMS 106 Medical Terminology.....	1
PTA 200 Physical Therapy Issues & Trends.....	2
PTA 201 Physical Therapy Assistant Seminar	2
PTA 202 PTA Communication Skills.....	2
PTA 220 Functional Anatomy & Kinesiology	3
PTA 222 Functional Anatomy & Kinesiology Lab.....	2
PTA 230 Neuroscience	2
PTA 231 Rehabilitation Techniques	2
PTA 232 Orthopedics for the PTA.....	2
PTA 240 Physical Disabilities	2
PTA 241 Physical Disabilities II	2
PTA 250 Therapeutic Procedures I.....	4
PTA 251 Therapeutic Procedures II.....	4
PTA 252 Physical Agents & Therapeutic Modalities	2
PTA 260 Clinical Education I	1
PTA 263 Clinical Affiliation I	3
PTA 268 Clinical Practicum	5
PTA 290 Therapeutic Exercise	1
Total	42
TOTAL	72

PRACTICAL NURSING

Certificate

Program Code: CT.LPN

CIP Code: 51.1613

Licensed Practical Nurses (LPNs) represent the second largest health care providing group in America, after RNs. LPNs provide direct patient care under the supervision of an RN, physician or dentist. They perform a variety of nursing functions requiring communication skills, critical thinking, decision making, and sound judgment. LPNs work in hospitals, long term care facilities, home health care, physician/dentist offices and other settings. Practical nurses have a vital role in affecting the quality and effectiveness of health care.

The Practical Nursing program at Calhoun is a Certificate program of study. It was established in 1953 to provide a program for the educational preparation of the Licensed Practical Nurse. The program has the full approval of the Alabama Board of Nursing. It is accredited by the National League for Nursing. Accreditation information regarding the nursing program may be obtained from the National League for Nursing Accrediting Commission, 61 Broadway 33rd Floor, New York, New York, 10006, 1-800-669-1656, ext. 153.

Graduates of this curriculum will be eligible to apply to take the licensing examination, NCLEX-PN, through which they achieve the designation of licensed practical nurse.

Completion of the practical nursing curriculum requires three (3) semesters of study for a total of 43 credit hours. Courses must be taken in sequential order as designated. Enrollment is limited.

The practical nursing curriculum revolves around technical excellence utilizing the nursing process as a means by which students relate theory to practice. It incorporates the knowledge, values, and skills required for safe, effective patient care in practical nursing practice. Ethical and legal accountability are stressed.

The practical nursing program at Calhoun is for those individuals who are service oriented, intellectually mature with a strong sense of self direction and motivation and who are able to work and interact with people of all ages and from various backgrounds.

PHILOSOPHY AND OBJECTIVES

The philosophy of the nursing programs is consistent with the mission, goals and objectives of The Alabama Community College System. The programs provide curricula to develop the knowledge, skills, and abilities necessary for entry level employment in practical and professional nursing. The nursing faculty endorses the following beliefs:

Maslow's theory is the foundation for the program of learning. According to Maslow, all individuals have similar needs arranged in a hierarchy with higher needs emerging as basic physiological needs are met. Individuals are unique biological, psychosocial and spiritual beings who strive to meet holistic needs. Each individual has the right to make informed decisions about one's health in a technologically changing society. Society, a complex system that influences culture, values, and beliefs, provides direction and meaning to an individual's experiences throughout the lifespan. Health, which is individually perceived, exists when needs are met.

Ranging on a continuum from highest level wellness to death, health is a dynamic state. The goals of health care are to promote, maintain, and restore health.

Nursing is an art as well as a science in which the holistic needs of the individual are met through utilization of the nursing process in a variety of settings. The nursing process incorporates scientific principles, interpersonal and psychomotor skills. The practice of nursing takes place in an ever changing health care system and requires caring, critical thinking, competency, legal/ethical accountability, dedication to an evolving body of knowledge, life long learning and client advocacy.

The teaching-learning process is a shared responsibility between faculty and students where faculty serve as facilitators of learning. The successful teaching-learning process requires an environment that promotes learning, considers the needs of the individual, and provides opportunities for student participation and educational goal attainment. The learning process is based on principles of critical thinking and is enhanced by the presentation of information from simple to complex. Learning is achieved when there is evidence of a change in behavior within the cognitive, affective, and/or psychomotor domains. Individuals have the right to achieve self-actualization and society provides educational opportunities.

Nursing education is a learner-centered process which combines general education and nursing courses to prepare the individual for the practice of nursing. Incorporating a program of learning, a variety of instructional methodologies, and available resources, nursing education fosters competency, accountability and continued professional development. Learning is a life long process which promotes professionalism and is beneficial for the learner and society.

Threads Integrated Throughout Curriculum

1. Critical Thinking
2. Communication
3. Nutrition
4. Pharmacology
5. Cultural Diversity
6. Lifespan
7. Pathophysiology
8. Technology
9. Teaching / Learning
10. Legal / Ethical
11. Roles of the Nurse

PRACTICAL NURSING Certificate

SEMESTER I (Fall)

Course	Semester Hours
MTH 116* Mathematical Applications	3
BIO 201 Human Anatomy and Physiology I	4
NUR 102 Fundamentals of Nursing	6
NUR 103 Health Assessment	1
NUR 104 Introduction to Pharmacology	1
Total	15

***NOTE: A higher math may be accepted with approval**

***Prerequisite:** Satisfactory score on the COMPASS math placement or ACT/SAT tests or appropriate developmental coursework.

SEMESTER II (Spring)

ENG 101* English Composition I	3
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Programs of Study

BIO 202 Human Anatomy and Physiology II	4
NUR 105 Adult Nursing	8
NUR 106 Maternal and Child Nursing.....	5
Total	20

***Prerequisite:** Satisfactory score on the COMPASS English placement or ACT/SAT tests or appropriate developmental coursework.

SEMESTER III (Summer)

NUR 107 Adult/Child Nursing.....	8
NUR 108 Psychosocial Nursing	3
NUR 109 Role Transition.....	3
Total	14

TOTAL CREDITS49

***Beginning Fall 2008, Practical Nursing students will be required to take BIO 201 and BIO 202, Anatomy and Physiology I and II.**

ADMISSION POLICY PRACTICAL NURSING

Prospective students can access Admission Requirements and Applications for the nursing programs by going to www.calhoun.edu. From the homepage, click on ACADEMICS. Under the Division of Health and Natural Sciences, click Nursing, on the left-side menu, click PROSPECTIVE STUDENTS.

Information for Student Applicants:

Minimum admission standards for the Practical Nursing program include:

1. Unconditional admission to the college.
2. Receipt of completed application for the Practical Nursing by April 1.
3. A minimum of 2.50 cumulative GPA for students with previous college work.
4. A minimum of 2.50 high school GPA for student without prior college work (GED acceptable to lieu of high school transcript).
5. Eligibility for English 101 and Math 116 as determined by college policy.
6. Good standing with the college.
7. Meeting the essential functions or technical standards required for nursing.
8. A score of 76 or higher on the COMPASS Reading Examination (or related ACT Reading Score of 17 or higher).

Admission to the Practical Nursing program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. **Meeting minimal requirements does not guarantee acceptance.**

Calculation of Points for Students Meeting Minimum Admission Standards:

After meeting all minimum requirements, applicants are ranked using a point system based on:

- (1) COMPASS Reading scores;
- (2) Points from selected college courses (i.e., ENG 101, MTH 116) or selected high school courses (i.e. Algebra II or higher level math, highest level Biology, Chemistry); and
- (3) Additional points for students currently enrolled or who

have previously completed courses at the college (including dual enrollment and/or early college admission).

1. Compass Reading Score (Maximum of 99 points)

COMPASS and ACT scores must be within the past 3 years for consideration. Students not meeting the 76 minimum should seek advisement regarding retesting policies and/or remediation requirements. If student has taken the ACT, the ACT **Reading** score can be used to derive the related Compass score using the crosswalk scores provided by ACT.

2. Points for Grades in Selected College Courses Maximum points 90

	A	B	C
ENG 101	30	20	10
MTH 116 or higher level Math	30	20	10

OR

Points for Grades in Selected High School Courses Maximum points 90

	A	B	C
Highest Level Biology (incl. A&P)	30	20	10
Algebra II or Higher Level Math	30	20	10

3. **Additional points (Maximum 11)** – Students may be awarded up to 11 points as determined by individual college policy and procedures.

A TOTAL OF 170 POINTS ARE POSSIBLE WITH THESE SELECTION CRITERIA.

PRACTICAL NURSING ENROLLMENT REQUIREMENTS

It is recommended that all nursing students be immunized against Hepatitis B prior to entering the first nursing course. At the time of registration for the first nursing course, students will be required to present proof that they have received the three (3) Hepatitis B vaccinations or proof of immunity to the hepatitis virus. (The three immunizations take at least six months to complete). Students who choose not to have these immunizations must sign a form indicating their refusal of the vaccinations prior to being allowed to register for nursing. Additionally, the student must have the following documentation at registration for Semester I to complete the enrollment process in the Practical Nursing program

1. Documentation of current cardiopulmonary resuscitation (CPR) health care provider level course completion.
2. A current Student Health Form that has been completed by a licensed physician or nurse practitioner. (form will be furnished when student is notified of admission into the Nursing program)
3. Documentation of two-step Mantoux skin test (PPD), or chest x-ray, if PPD is positive, indicating he/she is free of tuberculosis.
4. Verification of immunization for Hepatitis B and/or show positive antibodies, or sign a waiver.
5. Documentation of immunity to rubella (German Measles), immunization record or titer level.
6. Proof of purchase of professional liability insurance through the College as outlined by the Nursing Department at Calhoun Community College.

7. As stipulated by the health agencies with which the Nursing Department contracts for clinical experience, each student accepted in any nursing program at Calhoun Community College will undergo drug and alcohol testing as a precondition to beginning a clinical rotation. The fee for testing is the responsibility of the student. Written guidelines for the screening process will be provided to the student upon his/her acceptance into the program.

PROGRAM REQUIREMENTS

The following requirements apply to continued progression in the program.

Standards of Conduct

The nursing student shall comply with legal, moral, and legislative standards which determine acceptable behavior of the nurse and shall avoid those behaviors which may be cause for denial of license to practice as a practical nurse, in accordance with the Alabama Law Regulating Practice of Registered and Practical Nursing and the Alabama Board of Nursing Administrative Code.

When there is a probable cause, the Nursing Department faculty reserves the right to require a prospective student, a student currently enrolled in the program, or a returning student to submit to psychological testing/counseling, drug screening, and/or a physical examination by a licensed physical at the student's expense and to submit a report of the outcome to the nursing faculty. The Nursing Department will provide a specific form for this purpose, when applicable. All reports may be reviewed by the Nursing Department faculty to determine if a student may be admitted, readmitted, or retained in the nursing program.

In addition, all students admitted to the program are expected to abide by the policies of the COLLEGE CATALOG and the POLICY MANUAL for Practical Nursing students.

Academic Progression

The following standards must be maintained by each student in order for her/him to progress in the nursing program:

1. Maintain a grade of C or better in all required general education and nursing courses and maintain a 2.0 cumulative GPA.
2. Unless completed previously, students must complete all required general education courses according to The Alabama Community College System Nursing Education curriculum. Any exceptions must be approved by the nursing program director.
3. Maintain ability to meet essential functions for nursing with or without reasonable accommodations.
4. Students must successfully complete the program within 24 months from initial semester for PN and Mobility students
5. Maintain current CPR at the health care provider level.
6. If a student withdraws or makes a D or an F in a nursing course, the student cannot progress in the nursing course sequence until the course is repeated successfully. Course repetition will be based on instructor availability and program resources.
7. Students whose progression through the nursing program is interrupted and who desire to be reinstated in the program must schedule an appointment with a nursing faculty advisor to discuss reinstatement. In order to be reinstated, a student must:
 - a. Apply for readmission to the college if not currently enrolled;
 - b. Submit a letter requesting reinstatement to the nursing pro-

- gram Admissions and Progression Committee;
- c. Submit letter of request in a timely manner so that reinstatement would occur within one year from the term of withdrawal or failure;
- d. Demonstrate competency in all previous nursing courses successfully completed;
- e. Adhere to nursing curriculum or program policies and procedures effective at the point of reinstatement.
8. Reinstatement to the nursing program is not guaranteed.
9. Reinstatement may be denied due to, but not limited to, any of the following circumstances:
 - a. Space unavailability of a course in which the student wishes to be reinstated. (Students in regular progression have enrollment priorities for clinical sites.)
 - b. Grade point average is less than 2.0 from courses completed at current institution.
 - c. Refusal by clinical agencies to accept the student for clinical experiences.
 - d. Failure to demonstrate competency in all previous nursing courses successfully completed.
 - e. Over twelve months have elapsed since the student was enrolled in a nursing course.
 - f. Student has been dismissed from the program.
10. A total of two unsuccessful attempts (D, F, or withdrawal) in nursing courses will result in dismissal from the nursing program. Withdrawal and/or a D or F in one or more courses in a term will be considered one attempt.
11. If a student has been dismissed from the associate degree nursing program, the student may apply for admission to the practical nursing program. If a student has been dismissed from the mobility program, the student may apply for admission to the generic program.
12. A student who has been dismissed from a specific program (ADN/PN/Mobility) can apply for admission as a new student to any nursing program within the Alabama Community College System, provided:
 - a. the student meets current entry requirements;
 - b. at least two years have elapsed since the student's dismissal from a specific program; and
 - c. the student was not dismissed from the previous program for disciplinary reasons or for unsafe/unsatisfactory client care in the clinical area.
13. Students dismissed from the previous program for disciplinary reasons and/or unsafe/unsatisfactory client care in the clinical area will not be allowed reinstatement to the nursing program.

A current Student Health Examination form on all students must be maintained on file throughout the program.

Nursing students must have professional liability insurance coverage as outlined by the Nursing Department at Calhoun Community College.

POLICIES/CURRICULUM

Policies/curriculum for Practical Nursing is subject to change at any time. Written notice will be given to all students enrolled in the LPN program prior to implementation of change.

Readmission:

The readmission of a student is based on availability of space and student-teacher ratio, provided the student is eligible to return. The stu-

Programs of Study

dent will be readmitted one time only following failure of a nursing course with a clinical lab component. The student must complete the program within 24 months of initial admission date.

After two years have lapsed since a student has attended the Practical Nursing Program, the student has an option of reentering the program as a new student. The student will take all required NUR courses listed in the curriculum at the time of admission. The student will be required to meet all program requirements.

Any student requesting readmission must have a minimum Grade Point Average of 2.00 on all course work attempted.

A Student Health Examination Form will be required as well as liability insurance renewal, tuberculin skin testing (PPD) and CPR course completion.

TRANSFER STUDENTS

Applicants desiring to transfer into Calhoun's Practical Nursing Program who have taken nursing courses will be considered on an individual basis and will be required to meet requirements of the nursing program. The applicant must

1. Meet the entry and progression requirements of the institution and the nursing program.
2. Provide evidence that all required general education and nursing courses maintain a grade of C or better taken at another institution and maintain a 2.0 cumulative GPA.
 - a. Alabama Community College System Standardized Nursing Curriculum courses will be transferred without review of the course syllabus.
 - b. Nursing courses from any other institution are accepted only after review by the accepting institution to ensure content consistency.
3. Must be a student in good standing and eligible to return to the previous nursing program.
4. Provide a letter of recommendation from the Dean/Director of the previous program.
5. Complete at least 25% of the total program at the accepting institution.
6. Acceptance of transfer students into nursing programs is limited by the number of faculty and clinical facilities available. Meeting minimal requirements does not guarantee acceptance.
7. Validation of skills and knowledge may be required to determine program placement.

AUDIT

Students auditing a Practical Nursing course will not be allowed to attend any clinical labs nor to take or review any course exams. They will not be required to have the mandatory Student Health Examination nor the PPD skin testing and hepatitis vaccinations. They will not be required to complete a cardiopulmonary resuscitation course or pay liability insurance.

GRADING STANDARD

The grading scale for practical nursing courses (LPN prefixes) is as follows (Note: 75% or above is passing.):

PRACTICAL NURSING PROGRAM ESTIMATED COSTS

Tuition: See College Catalog under Financial Information

Malpractice Insurance (per year).....	\$ 25.00
Total Testing.....	80.00 per semester
Graduation Fees	35.00
NCLEX Fee.....	200.00
Licensure Fee	75.00
Temporary License (optional)	50.00
Textbooks (approximate)	\$540.00
Nurse Pacs	75.00
Uniforms (approximate)	124.00
Health Exams, PPD, Immunizations	Cost Varies
CPR Course	35.00
Drug Testing.....	45.00
Graduation Pictures.....	35.00
Background testing	50.00

GRADUATION

To graduate, a student must successfully complete the prescribed program of study with a 2.0 overall Grade Point Average (GPA).

CAREER MOBILITY

Graduates of the Practical Nursing program who pass the NCLEX-PN examination and want to continue nursing education are referred to in the section on Career Mobility, Associate Degree Nursing program.

LICENSURE

Upon satisfactory completion of the requirements of the Nursing program, the graduate will be eligible to apply to take the National Council Licensure Examination and apply to a state Board of Nursing for licensure as a practical nurse. Legal requirements for licensure may be found in the Alabama Board of Nursing Administrative Code 1982 (Reprinted 1992).

Grounds for denial of an RN or LPN license by examination include but are not limited to

1. conviction of a felony.
 2. conviction of a misdemeanor or felony involving moral turpitude or gross immorality.
 3. conviction of a state or federal law related to controlled substances (may be either a misdemeanor or a felony).
 4. failure to show good moral character as pertaining to nursing.
 5. abuse of, or addiction to, alcohol or other drugs.
 6. being mentally incompetent.
 7. unprofessional conduct.
 8. false representation of facts on application for licensure.
- (Code of Alabama, 1975, Section 34-21-25; Alabama Board of Nursing Administrative Code 610-X-8-.01 and 610 -X-8-.05)

Upon application for licensure, the individual will be required to answer the following questions found on the application:

Have you ever been arrested or convicted of a criminal offense other than a minor moving traffic violation? YES____ NO____

Have you within the last 5 years abused drugs/alcohol or been treated for dependency to alcohol or illegal chemical substances?
YES____ NO____

Have you ever been arrested or convicted for driving under the influence of drugs/alcohol? YES____ NO____

Have you within the last 5 years received inpatient or outpatient treatment or been recommended to seek treatment for mental illness?
YES____ NO____

Have you ever had disciplinary action or is action pending against you by any state board of nursing? YES____ NO____

Have you ever been placed on a state **AND/OR** federal abuse registry?
YES____ NO____

Have you ever been court-martialed/disciplined **OR** administratively discharged by the military? YES____ NO____

Any applicant who answers "YES" to the questions regarding criminal conviction, alcohol/drug abuse/treatment or mental illness must provide the Alabama Board of Nursing with a full explanation and the appropriate court/treatment records must accompany the application for examination and licensure. If the documents are not received along with the application, the applicant can expect to be delayed in taking the examination. By a full explanation, the Board expects more than a statement naming the crime for which the applicant was convicted. The explanation should contain a full recitation of who and why the crime occurred and the applicant's history since the crime. If the applicant has indicated a history of mental illness or chemical dependency, a full explanation including treatment records, urine screens, doctor's statements, etc., must be received with the application.

Applicants also should be aware that they must disclose arrests that did not result in convictions and attach those court records. Misdemeanors also must be disclosed. These include checks written on accounts with insufficient funds and DUI. Minor traffic violations are excluded. If the Board of Nursing later learns of arrests or convictions not originally disclosed, such will be considered to be fraud and deceit in procuring a license and disciplinary action will be forthcoming.

The Alabama Board of Nursing will determine whether or not the applicant may write the examination for licensure and be licensed as a practical nurse. Any questions regarding this matter should be directed to the Chairperson of the Nursing Department.

Be advised that a criminal and/or drug history could result in denial of permission to take the licensure examination.

These same legal requirements or others may apply to taking the NCLEX-PN in other states.

Drug Testing

As stipulated by the health agencies with which the Department of Nursing contracts for clinical experience, each student accepted in any nursing program at Calhoun Community College will undergo

drug and alcohol testing as a precondition to beginning a clinical rotation. The fee for testing is the responsibility of the student. Written guidelines for the screening process will be provided to the student upon their acceptance into the program.

SECURITY

Certificate

Program Code: CT.SECURITY

CIP Code: 43.0107

The Certificate in Security prepares students to enter many of the varied fields of private security, or may be used to improve the competencies of professionals already employed in the field.

ORI 101 Orientation to College.....	1
COM 100 Introductory Technical English I OR ENG 101 English Composition I	3
CIS 146 Microcomputer Applications.....	3
CRJ 160 Introduction to Security	3
CRJ 166 Private and Retail Security	3
CRJ 168 International Security	3
CRJ 169 Security Management.....	3
CRJ 170 Introduction to Physical Security	3
CRJ 171 Security Risk Management	3
CRJ 290 Special Topics.....	2

TOTAL CREDITS.....27

SURGICAL TECHNOLOGY

Certificate

Program Code: CT.SURGICAL

CIP Code: 51.0909

This program is designed to prepare graduates for employment and careers in this rapidly growing technical field. The Surgical Technology program is directed towards men and women who have the capability and interest to become surgical technologists. The program provides the student with knowledge and skills to function as an integral part of a team providing surgical care to patients in a variety of settings. Under medical supervision, the surgical technologist will assist with safe and effective delivery of invasive surgical procedures.

Completion of this program requires three semesters of classroom/laboratory instruction and clinical experience for a total of 1050 contact hours.

Upon successful completion of the Surgical Technology program, the student will demonstrate the following objectives:

1. Comprehension, application and evaluation of clinical information relevant to his or her role as a surgical technologist (Cognitive Domain).
2. Technical proficiency in all skills necessary to fulfill the role as a surgical technologist (Psychomotor Domain).
3. Personal behaviors consistent with professional and employer expectations for the surgical technologist (Affective Domain).

Programs of Study

NOTE: The Surgical Technology curriculum, admission requirements, and selection process are currently under revision by the Department of Postsecondary Education. Please contact the Surgical Technology department for the most current information.

SURGICAL TECHNOLOGY CERTIFICATE = 29 SEMESTER HOURS PROGRAM OUTLINE

SEMESTER 1

SUR 100	Principles of Surgical Technology	5 credits
SUR 102	Applied Surgical Techniques	4 credits
SUR 107	Surgical Anatomy and Pathophysiology	3 credits
HPS 114	Basic Pharmacology	2 credits
		14 credits

SEMESTER 2

SUR 103	Surgical Procedures	5 credits
SUR 104	Surgical Practicum I	4 credits
		9 credits

SEMESTER 3

SUR 105	Surgical Practicum II	5 credits
SUR 106	Special Topics in Surgical Technology	1 credits
		6 credits

TOTAL CREDITS29 credits

Admissions Requirements

Acceptance into Calhoun Community College is granted to most applicants, but this does NOT constitute nor guarantee admission to the SUR program. Students interested in admission to the SUR program should complete an application through the Allied Health Department office in the Health Sciences Center, Room 308 or through Grant Wilson, Program Director, in the Health Sciences Center, Room 352.

The minimum requirements for admission into the SUR program include:

- Submit a completed application form to the Admission & Registrar's Office at Calhoun Community College and be accepted for enrollment by the College.
- Attend an information session.
- Submit a completed Surgical Technology Application Form to the Department of Allied Health (Forms are made available at information sessions).
- Possess a high school diploma or equivalent.
- Completion of, concurrent enrollment in, or eligibility to enroll (ACT English score of 20 or better, SAT verbal score of 480 or better, or appropriate entrance exam score) in ENG 101.
- A cumulative GPA of 2.5 or higher on any college coursework completed.
- Completed Medical Terminology (EMS 106 OR HPS 105) with a grade of C or better.
- Complete Math 100, 112, OR 116 with a grade of "C" or better.

Selection Process

Meeting minimum requirements above does NOT guarantee admission into the SUR program. Students meeting the minimum requirements will be presented to the SUR Admission Committee with a score of "10". Additional points are added to the application by the

committee when students have:

- Completed EMS 106 OR HPS 105 with a grade of
 - "A" = 4 points added
 - "B" = 3 points added
 - "C" = 2 points added
- Work experience in a patient care setting - up to 4 points added
- Completed a handwritten statement (on the application) and an interview with the Program Director
 - Statement = up to 4 points added
 - Interview = up to 4 points added
- One year or more of work experience in surgery- 1 point added

Admission is granted to a maximum of 24 students with the highest application scores. In situations where two or more students have tie scores for the final position, the date the application was submitted will determine the student awarded the seat.

Upon enrollment in the program

1. Submit to the Allied Health Department a satisfactory Student Health Form completed by a licensed physician or nurse practitioner (form will be furnished when student is accepted for admission). Health form is due by **first day of class**. Form is valid for one year. Evidence of good health is required for placement in the program.
2. Provide evidence of vaccination for Hepatitis B and/or positive antibodies or sign a waiver.
3. Provide documentation of two-step Mantoux skin test (PPD), or chest x-ray, if positive, indicating he/she is free of tuberculosis.
4. Provide documentation of Immunity for Rubeola (Measles), Mumps, Rubella (German Measles) through one of the following:
 - a. History of having had the disease
 - b. Titer that shows immunity
 - c. Immunization record
5. Provide evidence of current certification in BCLS/Healthcare Provider cardiopulmonary resuscitation (CPR) prior to clinical experience. Students are responsible for obtaining and maintaining current CPR Certification while enrolled in the program.
6. Purchase professional liability insurance through the College by the **first day of class** (forms available in the Allied Health Department).
7. Meet requirements for criminal background check and drug screen per Allied Health Department and/or clinical affiliate policies.

PROGRESSION IN THE PROGRAM

- Students must fulfill all course requirements as stated in each SUR syllabus
- Achieve a minimum grade of “C” (75%) in each SUR course.
- Successfully complete all lab, practical, and clinical components of each SUR course.
- Successfully complete Program Assessment Exam
- Complete the Certified Surgical Technologist Exam.

Specific questions concerning the program can be answered by calling the Surgical Technology program (Monday-Thursday at 256/306-2786/306-2950).

SURGICAL TECHNOLOGY PROGRAM ESTIMATED COSTS

Tuition: See college catalog section covering financial information.

Malpractice Insurance (per year).....	\$21.75
Standardized Exams	\$60.00
Graduation Fee	\$35.00
Certification Exam	\$245.00
Textbooks.....	\$400.00
Health Exams, PPD, Immunizations	Cost Varies
CPR Course.....	\$45.00

READMISSION POLICY

A student may be readmitted to a SUR course ONE TIME following a failure of or withdrawal from an SUR course. Students who are currently returning following a failure are considered to be using their second and final opportunity to complete the Surgical Technology program.

Following withdrawal:

If a student withdraws from a SUR course or is temporarily ineligible to progress (see progression requirements), readmission to the SUR program requires

1. written notification at least three months in advance to the SUR Program Director that the student desires to reenter the SUR program.
2. a minimum cumulative grade point average of 2.5
3. no longer than twelve (12) months may elapse between completion of a SUR course and enrollment in the subsequent course for successful completion of a series of advanced courses.

All students who withdraw from or are temporarily ineligible to progress through a program of study in the Allied Health Department will be readmitted under the College Catalog in effect the year of readmission.

2009 2010

Course Descriptions



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CREDIT HOUR EQUIVALENCIES

CREDIT HOUR EQUIVALENCIES – The ratio of weekly contact hours to credit hours varies with the type of instruction being used. The College will recognize the following methods or types of instruction:

THEORY. (T) One hour of theory instruction under the supervision of an instructor plus an average of two hours of out-of-class study per week. 1:1

EXPERIMENTAL LABORATORY. (E) Two hours of experimental laboratory under the supervision of an instructor plus an average of one hour of out-of-class assignments per week. 2:1

PED ACTIVITY. (A) Two hours of physical education class activity/practice under the supervision of an instructor with out-of-class assignments per week. 2:1

MANIPULATIVE LABORATORY. (M) – Three hours of practice/manipulative laboratory under the supervision of an instructor with no out-of-class assignments per week. 3:1

SKILLS LABORATORY/CLINICAL PRACTICE. (S or C) - Three hours of skills laboratory or clinical practice under the supervision of an instructor. 3:1

Skills Laboratory/Clinical Practice is the term for skills laboratory (S) and clinical experiences (C) which are under the direct supervision of faculty. There may be out-of-class assignments per week, but they are not required. For example, skills laboratory and clinical experiences may have out-of-class assignments whereas a computer laboratory may not require an out-of-class assignment.



PRECEPTORSHIP. (P3 or P5) - Three or five hours of clinical experience per week under the supervision of a health care professional who is currently licensed, has expertise in the selected clinical area, and serves as a facilitator of learning. 3:1 or 5:1.

Preceptorship is the term used for clinical experiences which are supervised by currently licensed health care professionals who have expertise in a selected clinical area. Preceptors are employees of a clinical agency who are approved by faculty of the program and the administration of the clinical agency. Objectives for the preceptorship are specified. A designated faculty member is readily available (by telecommunication devices, for example) to the preceptor and student during the *preceptorship* experiences. Students enrolled in fields of study for which programmatic accreditation and/or licensing bodies require an 8:1 preceptorship ratio must comply with discipline-specific time-to-credit criteria.

As the contact hours for courses using preceptorship clinical experiences are entered, specify in the column for “clinical” the actual number of contact hours per week followed by a bold (P3) or (P5).

INTERNSHIP (I) - Five hours of experimental internship per week under the control and supervision of the employer on the job with coordinated employer/college representative planning. 5:1

Internship is the term used to include cooperative education, practicums, and sponsored work instruction. *Internship* involves the development of job skills by providing the student with a structured employment situation that is directly related to, and coordinated with, the educational program. Student activity in “internship” is planned and coordinated jointly by an institutional representative and the employer, with the employer having the responsibility for control and supervision of the student on the job. Students enrolled in fields of study for which programmatic accreditation and/or licensing bodies require a 10:1 internship ratio, must comply with field-specific time-to-credit criteria.

The number of clock hours of each type of instruction is stated in each course description. Types of instruction may be mixed within one course. In that event, the number of contact hours for each type of instruction is spelled out in the following order: Theory (T), Experimental Laboratory (E), PED Activity (A), Manipulative Laboratory (M), Skills Laboratory/Clinical Practice (S or C), Preceptorship (P3 or P5), and Internship (I). On the right side of the column, the number of credit hours for the entire course is given.

Course Descriptions

ADVANCED MANUFACTURING (ADM)

ADM 100 INDUSTRIAL SAFETY (3T)

3 credits

PREREQUISITE: Permission of instructor

This course is an introduction to general issues, concepts, procedures, hazards, and safety standards found in an industrial environment. This safety course is to make technicians aware of safety issues associated with their changing work environment and attempt to eliminate industrial accidents. This supports CIP code 15.0613. This is a CORE course.

ADM 101 PRECISION MEASUREMENT (2T,2E)

3 credits

PREREQUISITE: Permission of instructor

This course covers the use of precision measuring instruments and an introduction to basic geometric dimensioning and tolerancing (GD&T) concepts. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion students should be able to demonstrate correct use of measuring instruments. This supports CIP code 15.0613. This is a CORE course and is aligned with NIMS certification standards.

ADM 102 COMPUTER AIDED DESIGN (1T,4E)

3 credits

PREREQUISITE: Permission of instructor

This course provides an introduction to basic Computer Aided Drafting and Design (CADD) functions and techniques, using "hands-on" applications. Topics include terminology, hardware, basic CADD and operating system functions, file manipulation, and basic CADD software applications in producing softcopy and hardcopy. This is a CORE course. This course supports CIP code 15.0613.

ADM 103 INTRODUCTION TO COMPUTER INTEGRATED MANUFACTURING (CIM)/MATERIALS & PROCESSES (2T,2E)

3 credits

PREREQUISITE: Permission of instructor

This course is a basic introduction to concepts related to the computer integrated manufacturing (CIM) process and provides a basic overview of the materials and processes used in the industrial manufacturing of products. In addition, this course covers basic computer numeric control (CNC) principles including fundamental CNC programming concepts and the components and capabilities of machines commonly used for CNC applications. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology. Students cover the design requirements associated with a CIM cell (center), how a center is integrated into the full system, and the technician's role in the process improvement of not only the cell but the full CIM system. Related safety and inspection and process adjustment are also covered. This is a CORE course.

ADM 104 INTRODUCTION TO THERMAL/ELECTRICAL PRINCIPLES (1T,4E)

3 credits

PREREQUISITE: Permission of instructor

This course emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools

for HVAC/R, and application of the concepts of basic compression refrigeration. In addition, this course covers electrical/electronic fundamentals and principles. Emphasis is placed on electrical theory and science, semiconductor devices, motors, transformers, digital concepts, programmable logic controllers, and circuit analysis of resistive, capacitive, resonant, and tuned circuits. Upon completion, students will have knowledge of basic electricity and electronics and be able to identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system. This supports CIP code 15.0613. This is a CORE course.

ADM 105 FLUID SYSTEMS (1T,4E)

3 credits

PREREQUISITE: Permission of instructor

This course includes the fundamental concepts and theories for the safe operation of hydraulic and pneumatic systems used with industrial production equipment. Topics include the physical concepts, theories, laws, air flow characteristics, actuators, valves, accumulators, symbols, circuitry, filters, servicing safety, and preventive maintenance and the application of these concepts to perform work. Upon completion, students should be able to service and perform preventive maintenance functions on hydraulic and pneumatic systems. This is a CORE course. This course supports CIP code 15.0613.

ADM 106 QUALITY CONTROL CONCEPTS (3T)

3 credits

PREREQUISITE: Permission of instructor

This course covers quality assurance principles including the history of the quality movement, group problem solving, data collection, control charts, and statistical methods such as statistical process control (SPC), process capability studies, and the concepts associated with lean manufacturing. This supports CIP code 15.0613. This is a CORE course.

ADM 150 TECHNICAL CO-OPERATIVE EDUCATION (1I) 1 credit (each)

-155 PREREQUISITE: Permission of instructor

Students work on a part-time basis in a job directly related to applied technologies. The employer and supervising instructor evaluate students' progress. Upon course completion, students will be able to apply skills and knowledge in an employment setting.

ADM 250 INTRODUCTION TO FLEXIBLE MANUFACTURING CELLS (2T,2E)

4 credits

PREREQUISITE: Permission of instructor

This course covers techniques involved when grouping related machines for the purpose of completing a series of manufacturing processes in a flexible manufacturing cell. The student will be involved with the computerized integration of programmable control systems such as robotics, machine tools, and other peripheral equipment to emulate real-world manufacturing concepts employed in flexible manufacturing cells.

AIR CONDITIONING AND REFRIGERATION (ACR)

ACR 111 PRINCIPLES OF REFRIGERATION (1T, 6M) 3 credits

This course emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system. (Taught on Demand)

ACR 112 HVAC SERVICE PROCEDURES 3 credits PREREQUISITE: Permission of instructor

This course covers system performance checks and refrigerant cycle diagnosis. Emphasis is placed on the use of refrigerant recovery/recycle units, industry codes, refrigerant coils and correct methods of charging and recovering refrigerants. Upon completion, students should be able to properly recover/recycle refrigerants and demonstrate safe, correct service procedures which comply with the no-venting laws.

ACR 113 REFRIGERATION PIPING PRACTICES (1T, 4E) 3 credits

The course introduces students to the proper installation procedures of refrigerant piping and tubing for the heating, ventilation, air conditioning and refrigeration industry. This course includes various methods of working with and joining tubing. Upon completion, students should comprehend related terminology, and be able to fabricate pipe, tubing, and pipe fittings.

ACR 119 FUNDAMENTALS OF GAS HEATING SYSTEMS 3 credits FORMERLY ACR 115 (1T,4E)

This course provides instruction on general service and installation for common gas furnace system components. Upon completion, students will be able to install and service gas furnaces in wide range of applications.

ACR 120 FUNDAMENTALS OF ELECTRIC HEATING SYSTEMS 3 credits FORMERLY ACR 115 (1T,4E)

This course covers the fundamentals of electric furnace systems. Emphasis is placed on components, general service procedures, and basic installation. Upon completion, students should be able to install and service electric furnaces, heat pumps, and solar and hydronics systems.

ACR 121 PRINCIPLES OF ELECTRICITY FOR HVACR (1T, 4E) 3 credits

This course is designed to provide the student with the basic knowledge of electrical theory and circuitry as it pertains to air conditioning and refrigeration. This course emphasizes safety, definitions, symbols, laws, circuits, and electrical test instruments. Upon completion, students

should understand and be able to apply the basic principles of HVACR circuits and circuit components.

ACR 122 HVACR ELECTRICAL CIRCUITS (1T, 4E) 3 credits

This course introduces the student to electrical circuits and diagrams. Electrical symbols and basic wiring diagrams are constructed in this course. Upon completion, students should understand standard wiring diagrams and symbols.

ACR 123 HVACR ELECTRICAL COMPONENTS (1T, 4E) 3 credits PREREQUISITE: ACR 121

This course introduces students to electrical components and controls. Emphasis is placed on the operations of motors, relays, contractors, starters, and other HVAC controls. Upon completion, students should be able to understand motor theory and control functions in HVACR equipment.

ACR 126 COMMERCIAL HEATING SYSTEMS (1T, 4E) 3 credits PREREQUISITES: ACR 119, ACR 120

This course covers the theory and application of larger heating systems. Emphasis is placed on larger heating systems associated with commercial applications such as gas heaters, boilers, unit heaters, and duct heaters. Upon completion, students should be able to troubleshoot and perform general maintenance on commercial heating systems.

ACR 128 HEAT LOAD CALCULATIONS (3T) 3 credits PREREQUISITE: Permission of instructor

This course focuses on heat flow into and out of building structures. Emphasis is placed on determining heat gain/heat loss of a given structure. Upon completion, students should be able to calculate heat load and determine HVAC equipment size requirements.

ACR 130 COMPUTER ASSISTED HVAC TROUBLESHOOTING (2E) 1 credit PREREQUISITE: Permission of instructor

This course focuses on troubleshooting procedures. Emphasis is placed on the proper use of test equipment and machine/electrical malfunctions. Upon completion, student should be able to diagnosis and repair service problems in HVAC equipment.

ACR 132 RESIDENTIAL AIR CONDITIONING (1T, 4E) 3 credits PREREQUISITE: ACR 111

This course introduces students to residential air conditioning systems. Emphasis is placed on the operation, service, and repair of residential air conditioning systems. Upon completion, students should be able to service and repair residential air conditioning systems.

ACR 135 MECHANICAL GAS SAFETY CODES (3T) 3 credits PREREQUISITE: Permission of instructor

This course is to enhance the student knowledge of the Southern Mechanical and Gas Code as well as fire and job safety requirements. Emphasis is placed on code book content and compliance with installation requirements. Upon completion, students should be able to apply code requirements to all work.

Course Descriptions

ACR 138 CUSTOMER RELATIONS IN HVAC (3T) 3 credits
This course covers the basic aspects of customer relations needed by the HVAC technician. Topics include employability skills associated with job performance, record keeping, service invoices, certification requirements, local ordinances, and business ethics.

ACR 139 AUTOMOTIVE AIR CONDITIONING (1T, 6E) 3 credits
This course focuses on commercial refrigeration systems. Emphasis is placed on overall operation, troubleshooting and maintenance of commercial refrigeration systems. Upon completion students should be able to service and repair commercial refrigeration systems. **(Taught on Demand)**

ACR 141 ENVIRONMENTAL SYSTEMS (2T,4E) 4 credits
PREREQUISITE: Permission of instructor
This course provides students with knowledge and skills of environmental chambers. Topics include theory of the refrigerant components and refrigerant circuits, programmable controllers, electrical pressure and calibration instruments and places emphasis on safety. Upon course completion, students should be able to apply environmentally-safe practices.

ACR 144 BASIC DRAWING & BLUEPRINT READING IN HVAC (3T) 3 credits
PREREQUISITE: Permission of instructor
This course covers basic drawing and blueprint reading as applied to the HVAC industry. Emphasis is on three-view drawings, basic duct systems, and isometric piping. Upon course completion, students should be able to perform basic drawings related to HVAC systems and read pertinent blueprints.

ACR 147 REFRIGERATION TRANSITION AND RECOVERY (3T) 3 credits
This course is EPA-approved and covers material relating to the requirements necessary for types I, II, III and universal certification. Upon completion, students should be able to take the EPA/608 refrigerant certification exam. **(Taught on Demand)**

ACR 148 HEAT PUMP SYSTEMS I (1T, 4E) 3 credits
FORMERLY ACR 125
Instruction received in this course centers around the basic theory and application of heat pump systems and components. Upon completion students will be able to install and service heat pumps in a wide variety of applications.

ACR 149 HEAT PUMP SYSTEMS II (1T,4E) 3 credits
FORMERLY ACR 125
This is a continuation course of the basic theory and application of heat pump systems. Topics include the electrical components of heat pumps and their function. Upon completion, students should be able to install and service heat pumps.

ACR 151 DUCT DESIGN & FABRICATION (2T,8E) 6 credits
PREREQUISITE: Permission of instructor
This course provides instruction related to blueprints, lay-

outs, and design ducts. Topics include all aspects of fabrication including straight duct, offsets and various other fittings needed to perform a certain task.

ACR 181 SPECIAL TOPICS IN AIR CONDITIONING AND REFRIGERATION (3T) 3 credits
This course provides specialized instruction in various areas related to the air conditioning and refrigeration industry. Emphasis is placed on meeting the students' needs.

ACR 187 SPECIAL TOPICS IN ACR (2T, 4E) 5 credits
This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry. **(Taught on Demand)**

ACR 200 REVIEW FOR CONTRACTORS EXAM (3T) 3 credits
This course prepares students to take the State Certification Examination. Emphasis is placed on all pertinent codes, piping procedures, duct design, load calculation, psychometrics, installation procedures, and air distribution. Upon completion, students should be prepared to take the contractors exam. **(Taught on Demand)**

ACR 202 SPECIAL REFRIGERATION SYSTEMS (3T) 3 credits
This course is designed to give the students the basic knowledge of a variety of commercial refrigeration systems. Topics include expandable refrigeration evaporator systems, combination spray and compressor system, open cycle ammonia, CO2 pellets, vortex tubes, reach in coolers, and soft serve ice cream machines. Upon completion, students should be able to perform general troubleshooting and maintenance on various commercial refrigeration systems. **(Taught on Demand)**

ACR 203 COMMERCIAL REFRIGERATION (1T, 4E) 3 credits
PREREQUISITE: ACR 111
This course focuses on commercial refrigeration systems. Emphasis is placed on evaporators, condensers, compressors, expansion devices, special refrigeration components and application of refrigeration systems. Upon completion, students should be able to service and repair commercial refrigeration systems.

ACR 205 SYSTEM SIZING AND AIR DISTRIBUTION (1T, 4E) 3 credits
This course provides instruction in the load calculation of a structure and system sizing. Topics of instruction include heat loss, heat gain, equipment and air distribution sizing, and factors making acceptable indoor air quality. Upon course completion, students should be able to calculate system requirements.

ACR 209 COMMERCIAL AIR CONDITIONING SYSTEMS (1T, 4E) 3 credits
This course focuses on servicing and maintaining commercial and residential HVAC/R systems. Topics include system component installation and removal and service tech-

niques. Upon completion, the student should be able to troubleshoot and perform general maintenance on commercial and residential HVAC/R systems.

ACR 210 TROUBLESHOOTING HVACR SYSTEMS

(1T, 4E)

3 credits

PREREQUISITE: Permission of instructor

This course provides instruction in the use of various meters and gauges used in the HVAC/R industry. Emphasis is placed on general service procedures, system diagnosis, and corrective measure, methods of leak detection, and system evacuation, charging and performance checks. Upon completion students should be able to perform basic troubleshooting of mechanical and electrical components of HVAC/R systems.

AEROSPACE TECHNOLOGY (ARS)

ARS 101 FUNDAMENTALS OF AEROSPACE MANUFACTURING

(3T)

3 credits

This course provides an overview of the materials and processes used in manufacturing high performance, light weight, and reliable structures for aerospace products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology. (This course should be taken during the first or second semester of enrollment in the program.)

ARS 151 WELDING PRINCIPLES, THEORY AND SYMBOLS

(1T, 4E)

3 credits

PREREQUISITE: ARS 101

This is a theory and skill-based course in basic welding (gas and arc), plasma arc, brazing, soldering, and cutting processes used in maintenance and manufacturing. Other theory topics include forge, submerged arc, electroslag, stud arc, resistance, ultrasonic, electron beam, and laser beam welding. Students use welding symbols, joint designs, and weld positions to prepare specimens. The course also covers terminology, standards for welding acceptable and unacceptable welds, safety, and qualification tests.

ARS 153 GAS TUNGSTEN ARC AND PLASMA ARC WELDING

(2T, 2E)

3 credits

PREREQUISITE: ARS 151

This course describes processes, methods, and skills required to produce acceptable welds with gas tungsten arc welding (GTAW) and plasma arc welding (PAW) equipment for aerospace hardware; the standard of acceptability is AWS D17.1:2001 (or latest revision). Topics include equipment, tooling, shielding gases, arc characteristics, welding techniques, non-consumable electrodes, filler metals, base materials, and related safety. Instruction covers manual, semi-automatic, and automatic welding procedures.

ARS 176 ELECTRICAL/ELECTRONIC ASSEMBLY

(2T, 2E)

3 credits

This mechanics of electrical/electronics assembly course covers materials and wire configurations, tools for wire preparation and assembly, wire stripping, connection requirements, terminal assembly, solder connections,

crimp connections, solder splices, shield terminations, tying and lacing, hardware installation, inspection, testing, safety, and industry specifications/standards. Worker proficiency certification in IPC/WHMA-A-620, "Requirements for Acceptance for Cable and Wire Harness Assemblies," is covered but certification testing is not a requirement to receive credit for the class.

ARS 178 MECHANICAL ASSEMBLY AND TUBE WELDING

(2T, 2E)

3 credits

PREREQUISITE: ARS 101

This course is a study of mechanical assembly and orbital tube welding processes applied in aerospace and related manufacturing industries. Topics include drilling techniques, torquing techniques, fastener installation, related attachments, welding setup methods, programming methods, tube preparation methods, and safety.

ARS 251 SPECIALIZED WELDING PROCESSES

(2T, 2E)

3 credits

PREREQUISITE: ARS 153

This course is an overview of the basics of metals joining using processes other than electric arc. Topics include safety; brazing; soldering; diffusion bonding; and welding processes such as resistance, laser, electron beam, ultrasonic, friction, inertia, explosion, upset, thermite, and forge.

ARS 253 WELDING CERTIFICATION PREPARATION

(1T, 4E)

3 credits

COREQUISITE: ARS 251

This course details the requirements for welder/welding operator certification in the aerospace industry. Training includes gas tungsten arc welding (GTAW) and plasma arc welding (PAW) processes and equipment and related safety. Emphasis is on materials in Groups I, II, III, and IV as defined in AWS D17.1:2001.

ARS 276 INSTRUMENTATION ATTACHMENTS AND ADHESIVE BONDING PROCEDURES

(2T, 2E)

3 credits

This course covers the use and installation techniques of instruments such as thermocouples, temperature sensors, and strain gages on different types of aircraft and structures. Topics include bonding materials, soldering techniques, electrical testing of temperature sensors and strain gages, mixing and applying adhesives for pressure, the effects of corrosion and weather, fuel tank sealing, adhesive selection, and safety.

ARS 278 COMPOSITE MATERIALS FABRICATION AND ASSEMBLY (2T, 2E)

3 credits

PREREQUISITE: ARS 178

This is a course in composite materials manufacturing. Topics include design and manufacturing techniques such as wet layups, prepregs, vacuum bagging, and filament winding. The course also covers the history of composite manufacturing, types of materials used in composite component fabrication, drilling and repair techniques, and related safety.

Course Descriptions

ARS 280 SURFACE PREPARATION AND COATINGS

(2T, 2E)

3 credits

This course is a study of component surface preparation for various coating and painting applications. The content includes color development, paint booth operation (electrical and air system), wet and dry coating thickness measurement, manual and automated coating techniques, and general and hazardous material handling safety.

ARS 284 SPECIALIZED COATING PROCESSES

(2T, 2E)

3 credits

PREREQUISITE: ARS 280

This course is a study in special coatings for aerospace structures. Topics include mixing, applying, and curing of coating materials, environmental effects on coating materials, and general and hazardous material handling safety. The course also covers equipment used in these processes.

ANTHROPOLOGY (ANT)

ANT 200 INTRODUCTION TO ANTHROPOLOGY (3T)

3 credits

This course is a survey of physical, social, and cultural development and behavior of human beings.

ANT 210 PHYSICAL ANTHROPOLOGY (3T)

3 credits

This course is a study of the human evolution based upon fossil and archaeological records as well as analysis of the variation and distribution of contemporary human populations.

ANT 220 CULTURAL ANTHROPOLOGY (3T)

3 credits

PREREQUISITE: ANT 200

This course is the application of the concept of culture to the study of both primitive and modern society.

ANT 226 CULTURE AND PERSONALITY (3T)

3 credits

PREREQUISITE: ANT 200

This course explores the relationship between personality development and culture from a cross cultural perspective.

ANT 230 INTRODUCTION TO ARCHAEOLOGY (3T)

3 credits

This course is an introduction to archaeological excavation techniques and post-excavation laboratory procedures.

ANT 236 FIELD SURVEY IN ARCHAEOLOGY (6E)

3 credits

PREREQUISITE: ANT 230

This course permits students to apply archaeological techniques to field research projects.

ANT 237 ARCHAEOLOGICAL LAB PROCEDURES (6E)

3 credits

PREREQUISITE: ANT 230

This course specializes in artifact conservation, cataloging, sorting, storage, and general post-excavation cultural material administration. Learning methodology and understanding the deterioration-susceptibility of objects.

ANT 246 PRESERVATION LAB PROCEDURES (6E)

3 credits

PREREQUISITE: ANT 230

This course is primarily intended for students interested in pursuing museum science and archaeological laboratory procedures. It reviews technical information on curation, preservation, and conservation of physical and cultural objects.

ANT 260 INDIANS OF NORTH AMERICA (3T)

3 credits

PREREQUISITE: ANT 200

This course surveys the history, development, and culture of North American Indian tribes in Alabama.

ART (ART)

ART 100 ART APPRECIATION (3T)

3 credits

This course is designed to help the student find personal meaning in works of art and develop a better understanding of the nature and validity of art. Emphasis is on the diversity of form and content in original artwork. Upon completion, students should understand the fundamentals of art, the materials used and have a basic overview of the history of art.

ART 101 ART WORKSHOP I (6E)

3 credits

PREREQUISITE: Permission of instructor

This course provides an art experience for both non-art and art majors who are interested in a variety of art projects concerned with community or college related activities. Emphasis is placed on the organization of ideas in advancing their creative process. Upon completion, students should be able to present visual evidence of the activities involved and explain how the experience advanced their artistic skills.

ART 102 ART WORKSHOP II (6E)

3 credits

PREREQUISITE: Art Workshop I, Permission of instructor

This course provides an art experience for both non-art and art majors who are interested in a variety of art projects concerned with community or college related activities. Emphasis is placed on the organization of ideas in advancing their creative process. Upon completion, students should be able to present visual evidence of the activities involved and explain how the experience advanced their artistic skills.

ART 109 ART MUSEUM SURVEY (3T)

3 credits

This course covers the art experience through supervised visits to museums and art galleries. Emphasis is placed on learning through critical study. Upon completion, students should be able to write a critical analysis of the artwork experienced that demonstrates an understanding of aesthetics.

ART 113 DRAWING I (6E)

3 credits

This course provides the opportunity to develop perceptual and technical skills in a variety of media. Emphasis is placed on communication through experimenting with composition, subject matter and technique. Upon completion, students should demonstrate and apply the fundamentals of art to various creative-drawing projects.

ART 114 DRAWING II (6E)

3 credits

PREREQUISITE: ART 113

This course advances the student's drawing skills in various art media. Emphasis is placed on communication through experimentation, composition, technique and personal expression. Upon completion, students should demonstrate creative drawing skills, the application of the fundamentals of art, and the communication of personal thoughts and feelings.

ART 121 TWO-DIMENSIONAL COMPOSITION I

(6E)

3 credits

This course introduces the basic concepts of two-dimensional design. Topics include the elements and principles of design with emphasis on the arrangements and relationships among them. Upon completion, students should demonstrate an effective use of these elements and principles of design in creating two-dimensional compositions.

ART 122 TWO-DIMENSIONAL COMPOSITION II

(6E)

3 credits

PREREQUISITE: ART 121

This course covers the theory and practice of composing two-dimensional images. Emphasis is placed on the relation between the basic elements and principles of design and their impact on the visual message. Upon completion, students should, through personal expression, demonstrate an effective use of these elements and principles of design in creating two-dimensional compositions.

ART 126 COLOR (6E)

3 credits

This course introduces the student to fundamentals of color and color uses. Topics include various color theories, technical skills in mixing color, types of pigment and the expressive uses of color. Upon completion, students should be able to explain and demonstrate a fundamental understanding of color as it is used in the development of assigned color problems.

ART 127 THREE-DIMENSIONAL COMPOSITION (6E)

3 credits

PREREQUISITE: ART 113 or ART 121

This course introduces art materials and principles of design that acquaint the beginner with the fundamentals of three-dimensional art. Emphasis is placed on the use of art fundamentals and the creative exploration of materials in constructing three-dimensional artworks. Upon completion, students should demonstrate basic technical skills and a personal awareness of the creative potential inherent in three-dimensional art forms.

ART 133 CERAMICS I (6E)

3 credits

This course introduces methods of clay forming as a means of expression. Topics may include hand building, wheel throwing, glazing, construction, design, and the functional and aesthetic aspects of pottery. Upon completion, students should demonstrate through their work a knowledge of their methods, as well as an understanding of the craftsmanship and aesthetics involved in ceramics.

ART 134 CERAMICS II (6E)

3 credits

PREREQUISITE: ART 133

This course develops the methods of clay forming as a means of expression. Topics may include hand building, glazing, design, and the functional and aesthetic aspects of pottery, although emphasis will be placed on the wheel throwing method. Upon completion, students should demonstrate improved craftsmanship and aesthetic quality in the production of pottery.

ART 173 PHOTOGRAPHY I (6E)

3 credits

This course is an introduction to the art of photography. Emphasis is placed on the technical and aesthetic aspects of photography with detailed instruction in darkroom tech-

niques. Upon completion, students should understand the camera as a creative tool, understand the films, chemicals and papers, and have a knowledge of composition and history.

ART 174 PHOTOGRAPHY II (6E)

3 credits

PREREQUISITE: Permission of instructor

This is a sequence to Photography I and serves as an introductory photography course. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student will be able to produce well composed photographs.

ART 176 FILMMAKING (6E)

3 credits

This course provides a knowledge of the basics of filmmaking. Emphasis is placed on procedure, equipment, editing and sound. Upon completion, students should demonstrate a basic knowledge of filmmaking through critical analysis and film projects.

ART 177 COLOR PHOTOGRAPHY (6E)

3 credits

PREREQUISITE: ART 173 or ART 176 or Permission of instructor

This course covers the primary materials and processes of color photography. Emphasis is placed on the correct exposure, processing, creative color usage, and printing of both positive/negative color materials through exploration of films, filters, processes, and color temperature. Upon completion, students should be able to correctly execute the technical controls of color materials and explore the creative possibilities of color photography.

ART 178 AUDIO-VISUAL TECHNIQUES (6E)

3 credits

This course is an exploration of the area of linkage between the visual and auditory senses. Work with sound and recording equipment, projected images and multimedia hardware and software is included. Students will produce finished multimedia pieces.

ART 187 PHOTOGRAPHY, FILM, AND MEDIA I (6E)

3 credits

PREREQUISITE: ART 173 or PFC 177 or Permission of instructor

This course is designed to help the student explore creative approaches to photography, film, and related media. Problems in darkroom techniques, laboratory techniques, and special effects are included. Upon completion, the student should be able to apply these techniques to professional quality finished pieces.

ART 188 PHOTOGRAPHY, FILM, AND MEDIA II (6E)

3 credits

PREREQUISITE: PFC 187 or Permission of instructor

This course is designed to help the student explore creative approaches to photography, film, and related media in greater depth. Problems in darkroom techniques, laboratory techniques, and special effects are included. Upon completion, the student should be able to apply these techniques to professional quality finished pieces.

ART 190 ART: LEGAL AND FINANCIAL MANAGEMENT (3T)

3 credits

This course is designed to acquaint the student with funding sources, business procedures, and project planning for the visual artist. Topics may include grants, budgeting, legal

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contracts, and self-promotion. Upon completion, students should demonstrate a knowledge of the basics of managing an art related business.

ART 203 ART HISTORY I (3T) 3 credits

This course covers the chronological development of different forms of art, such as sculpture, painting and architecture. Emphasis is placed on history from the ancient period through the Renaissance. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles, and of the impact of society on the arts.

ART 204 ART HISTORY II (3T) 3 credits

This course covers the chronological development of different forms of art, such as sculpture, painting and architecture. Emphasis is placed on history from the Baroque to the present. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles and of the impact of society on the arts.

ART 216 PRINTMAKING I (6E) 3 credits

This course introduces various printmaking processes. Topics include relief, intaglio, serigraphy, or lithography and the creative process. Upon completion, students should have a basic understanding of the creative and technical problems associated with printmaking.

ART 217 PRINTMAKING II (6E) 3 credits

PREREQUISITE: ART 216 or Permission of instructor

This course provides the opportunity for the student to study a printmaking process beyond the introductory level. Emphasis is placed on creativity, composition, and technique in the communication of ideas through printmaking. Upon completion, students should demonstrate an understanding of the printmaking process as a creative tool for the expression of ideas.

ART 221 COMPUTER GRAPHICS I (6E) 3 credits

This course is designed to enhance the student's ability to produce computer generated graphics. Emphasis is on the application of original design to practical problems using a variety of hardware and software. Upon completion, students should have an understanding of professional computer graphics.

ART 231 WATERCOLOR PAINTING I (6E) 3 credits

This course introduces materials and techniques appropriate to painting on paper with water-based medium. Emphasis is placed on developing the technical skills and the expressive qualities of watercolor painting. Upon completion, students should be able to demonstrate a basic proficiency in handling the techniques of watercolor and how it can be used for personal expression.

ART 232 WATERCOLOR II (6E) 3 credits

PREREQUISITE: ART 231

This course advances the skills and techniques of painting on paper using water-based medium. Emphasis is placed on exploring the creative uses of watercolor and developing professional skills. Upon completion, students should demonstrate and compile a body of original paintings that reflects a personal awareness of the media's potential.

ART 233 PAINTING I (6E) 3 credits

This course is designed to introduce the student to fundamental painting processes and materials. Topics include art fundamentals, color theory, and composition. Upon completion, students should be able to demonstrate the fundamentals of art and discuss various approaches to the media and the creative processes associated with painting.

ART 234 PAINTING II (6E) 3 credits

PREREQUISITE: ART 233

This course is designed to develop the student's knowledge of the materials and procedures of painting beyond the introductory level. Emphasis is placed on the creative and technical problems associated with communicating through composition and style. Upon completion, students should be able to demonstrate the application of the fundamentals of painting and the creative process to the communication of ideas.

ART 243 SCULPTURE I (6E) 3 credits

This course provides a study of three-dimensional form by familiarizing students with sculpting media and techniques. Topics include the fundamentals of art and sculpting media with emphasis on the creative process. Upon completion, students should understand the fundamentals of art and three-dimensional form, as well as the various media and processes associated with sculpture.

ART 244 SCULPTURE II (6E) 3 credits

PREREQUISITE: ART 243

This course is designed to sharpen skills in the media and processes of sculpture. Emphasis is placed on personal expression through three-dimensional form. Upon completion, students should be able to apply the fundamentals of art, their knowledge of form, and the sculptural processes to communicating ideas.

ART 253 GRAPHIC DESIGN I (6E) 3 credits

PREREQUISITE: VCM 180 or Permission of instructor

This course is designed to introduce the study of visual communication through design. Emphasis is placed on the application of design principles to projects involving such skills as illustration, layout, typography, and production technology. Upon completion, students should demonstrate a knowledge of the fundamentals of art and understanding of the relationship between materials, tools and visual communication.

ART 254 GRAPHIC DESIGN II (6E) 3 credits

PREREQUISITE: VCM 180 or ART 253

This course further explores the art of visual communication through design. Emphasis is placed on the application of design principles to projects involving such skills as illustration, layout, typography, and production technology. Upon completion, students should be able to apply the knowledge of the fundamentals of art, material and tools to the communication of ideas.

ART 258 PHOTOGRAPHIC AND MEDIA PROBLEMS (6E) 3 credits

This course deals with special problems in the student's area of interest. Emphasis is placed on design, technique and results. Upon completion, the student will be able to produce professional quality photographs in one particular area of photography.

- ART 263 MUSEUM PRACTICE I (2-8E) 1-4 credits**
PREREQUISITE: Permission of instructor
 This course provides an introduction to a variety of museum works, with practical training supervised by museum staff. Topics may include promotion, shipping, labeling and hanging of a museum exhibit as well as the study of the work itself. Upon completion, students should understand the activities surrounding a museum exhibit and be able to explain how the experience advanced their knowledge of communicating through art.
- ART 264 MUSEUM PRACTICE II (2-8E) 1-4 credits**
PREREQUISITE: ART 263 or Permission of instructor
 This course provides further study of museum artworks, with practical training supervised by museum staff. Topics may include promotion, shipping, labeling and hanging of a museum exhibit as well as the study of the work itself. Upon completion, students should understand the activities surrounding a museum exhibit and be able to explain how the experience advanced their knowledge of communicating through art.
- ART 273 STUDIO PHOTOGRAPHY I (6E) 3 credits**
 This course stresses image-making problems requiring studio or other controlled environment solutions. Lights, props, and related equipment and techniques are utilized. The student will produce quality photographs using studio techniques.
- ART 274 STUDIO PHOTOGRAPHY II (6E) 3 credits**
PREREQUISITE: PFC 273 or Permission of instructor
 This course deals with advanced problems requiring studio or other controlled environment solutions. Lights, props, and related equipment and techniques are utilized. The student will produce quality photographs using studio techniques.
- ART 283 GRAPHIC ANIMATION I (6E) 3 credits**
PREREQUISITE: ART 221
 This course is designed to teach the art of animation as a continuation of the study of visual communication. Topics include story development, drawing, layout story boarding, directing, motion control, sound synchronization, lighting and camera operation. Upon completion, students should understand the creative process as it relates to animation and demonstrate this knowledge through various projects.
- ART 284 GRAPHIC ANIMATION II (6E) 3 credits**
PREREQUISITE: ART 283
 This course advances the students' technical and aesthetic knowledge of animation beyond the introductory level. Topics include story development, drawing, layout, story boarding, directing, motion control, sound synchronizing, lighting and camera operation. Upon completion, students should advance his or her understanding of the creative process as it relates to animation and demonstrate this knowledge through various projects.
- ART 291 SUPERVISED STUDY IN STUDIO ART I (2-8E) 1-4 credits**
 This course is designed to enable the student to continue studio experiences in greater depth. Topics are to be chosen by the student with the approval of the instructor.

Upon completion, the student should have a greater expertise in a particular area of art.

- ART 292 SUPERVISED STUDY IN STUDIO ART II (2-8E) 1-4 credits**
 This course is designed to enable the student to continue studio experiences in greater depth. Topics are chosen by the student with the approval of the instructor. Upon completion, the student should have greater expertise in a particular area of art.
- ART 293 DIRECTED READINGS IN ART I (3T) 3 credits**
 This course offers supervised readings in the literature of visual art. Emphasis is placed on in-depth analysis of the chosen area of study. Upon completion, students should have an extensive knowledge of an advanced area in art and evidence of their work in the form of research.
- ART 294 DIRECTED READINGS IN ART II (3T) 3 credits**
PREREQUISITE: ART 293
 This course offers supervised readings in the literature of visual art. Emphasis is placed on an in-depth analysis of the chosen area of study. Upon completion, students should have an extensive knowledge of an advanced area in art and evidence of their work in the form of research.
- ART 299 ART PORTFOLIO (2-8E) 1-4 credits**
 This course is designed to help the art major in the preparation and presentation of an art portfolio. Emphasis is placed on representing the student's potential as an artist in order to interest employers, clients or schools. Upon completion, students should be able to make a professional presentation of their design and communication skills.

ASTRONOMY (AST)

- AST 220 INTRODUCTION TO ASTRONOMY (3T, 2E) 4 credits**
 This course covers the history of astronomy and the development of astronomical thought leading to the birth of modern astronomy and its most recent development. Emphasis is placed on the coverage of astronomical instruments and measuring technologies, the solar system, the Milky Way galaxy, important extra-galactic objects, and cosmology. Laboratory is required.

BARBERING (BAR)

- BAR 110 ORIENTATION TO BARBERING (3T) 3 credits**
 This course provides an orientation to professional barber-styling. Topics include professional image, basic fundamentals, and the history of barber-styling. Upon completion, the student should be able to identify the core concepts of the profession.
- BAR 111 SCIENCE OF BARBERING (1T, 2E, 3M) 3 credits**
 This course introduces the student to the basic science of barber-styling. Topics include anatomy/physiology, disorders, and treatments of the skin, scalp, and hair, and theory of facial and scalp massage. Upon completion, the student

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should be familiar with the anatomical structures, as well as disorders and treatments of the skin, scalp, and hair.

BAR 112 BACTERIOLOGY AND SANITATION (3T) 3 credits

This course provides the theory of bacteriology and sanitation. Topics include the types of bacteria and sanitation procedures. Upon completion, the student should be able to identify types of bacteria and methods of sanitation.

BAR 113 BARBER-STYLING LAB (9M) 3 credits

This course provides practical application of barber-styling fundamentals. Emphasis is placed on the care of implements, shampooing, and haircutting. Upon completion, the student should be able to care for his/her implements properly and demonstrate the basic techniques of shampooing and haircutting with only minimal supervision.

BAR 114 ADVANCED BARBER-STYLING LAB (9M) 3 credits

This course provides the student with practical experience in haircutting and facial massage. Emphasis is placed on hands-on experience. Upon completion, the student should be able to demonstrate on a model the correct procedures for a facial massage and basic haircut.

BAR 120 PROPERTIES OF CHEMISTRY (3T) 3 credits

This course provides the student with a basic knowledge of chemicals used in barber-styling. Topics include the changes produced in the hair and skin through exposure to chemicals, electricity and special light spectrums. Upon completion, the student should understand the proper use of implements and chemicals to treat hair and skin.

BAR 121 CHEMICAL HAIR PROCESSING (9M) 3 credits

This course provides the student with knowledge and hands-on experience using chemicals to alter the appearance of hair. Emphasis is placed on the use of chemicals to relax, wave, and soft curl the hair. Upon completion, the student should be competent in the use of chemicals to produce desired structure changes to the hair.

BAR 122 HAIR COLORING CHEMISTRY (3T) 3 credits

This course provides the student with a basic knowledge of hair color alteration. Topics include temporary, semi-permanent, and permanent changes. Upon completion, the student should be able to identify and explain the procedures for each classification of hair color alteration.

BAR 124 HAIR COLORING METHODOLOGY LAB (9M) 3 credits

This course provides the student an opportunity for practical application of all classifications of chemical hair coloring and processing products in a supervised environment. Emphasis is placed on experience in all classifications of hair coloring and processing procedures.

BAR 130 MARKETING AND BUSINESS MANAGEMENT (3T) 3 credits

This course provides the student with marketing and management skills that are essential for successful salon management. Topics include first aid, job search, bookkeeping, selling techniques, shop floor plans, shop locations, and legal regulations. Upon completion, the student should be aware of marketing and business management requirements for a successful salon.

BAR 131 STRUCTURE AND DISORDERS OF NAILS (1.5T, 4.5M) 3 credits

This course provides the student with the knowledge of nail structure and experience in identifying nail disorders. Emphasis is placed on identifying disorders and on using the correct implements and supplies for healthy nail care and manicures. Upon completion, the student should be capable of providing professional nail care.

BAR 132 HAIR STYLING AND DESIGN (3T) 3 credits

This course introduces the student to the art of hair style and design. Topics include the selection of styles to create a mood or complement facial features as well as hair replacement and hair pieces. Upon completion, the student should know the principles of style and design.

BAR 133 HAIR STYLING AND MANAGEMENT LAB (9M) 3 credits

This course includes hair styling and management procedures. Emphasis is placed on styling, management, marketing, and legal regulations. Upon completion, the student should be able to integrate a variety of skills and be ready to begin an internship in a salon setting.

BAR 140 PRACTICUM (10M) 2 credits

This course provides the student an opportunity to combine knowledge and skill covering all aspects of barber-styling in a professional setting or school lab with minimal supervision. Emphasis is placed on utilization of the knowledge and technical skills covered in the barbering/styling curriculum. Upon completion, the student should be able to function in a professional setting with very little assistance.

BAR 141 PRACTICUM (10M) 2 credits

This course provides the student an additional opportunity to combine knowledge and skill covering all aspects of barber-styling in a professional setting or school lab with minimal supervision. Emphasis is placed on utilization of the knowledge and technical skills covered in the barbering-styling curriculum. Upon completion, the student should function in a professional setting as a productive employee or manager.

BIOLOGY (BIO)

BIO 101 INTRODUCTION TO BIOLOGY I (3T, 2E) 4 credits

Introduction to Biology I is the first of a two-course sequence designed for non-science majors. It covers historical studies illustrating the scientific method, cellular structure, bioenergetics, Mendelian and molecular genetics and a survey of human organ systems. Special attention is paid to biological information that will allow each student to live a healthier life and be better prepared to understand human activity. Laboratory is required.

BIO 102 INTRODUCTION TO BIOLOGY II (3T, 2E) 4 credits PREREQUISITE: BIO 101

Introduction to Biology II is the second of a two-course sequence for non-science majors. It covers the theory of evolution, evolutionary principles and relationships, environmental and ecological topics, classification, and a survey of biodiversity. Each student will be prepared to make

informed decisions on environmental and ecological issues. Laboratory is required.

BIO 103 PRINCIPLES OF BIOLOGY I (3T, 2E) 4 credits
COREQUISITE: ENG 093; or equivalent ACT, SAT score, or BSR placement score of 67 or higher.

This is an introductory course for both science and non-science majors. It covers physical, chemical, and biological principles common to all organisms. These principles are explained through a study of cell structure and function, cellular reproduction, basic biochemistry, cell energetics, the process of photosynthesis, and Mendelian and molecular genetics. Also included are the scientific method, basic principles of evolution, and an overview of the diversity of life with emphasis on viruses, prokaryotes, and protists. Laboratory is required.

BIO 104 PRINCIPLES OF BIOLOGY II (3T, 2E) 4 credits
PREREQUISITE: BIO 103

This course is an introduction to basic ecological and evolutionary relationships of plants and animals and a survey of plant and animal diversity including classification, morphology, physiology, and reproduction. Laboratory is required.

BIO 105 INTRODUCTION TO BIOTECHNOLOGY (3T, 2E) 4 credits
CO-REQUISITE: BIO 103

This course is an introduction to biotechnology, including career exploration, historical development and current applications in the areas of medicine, forensics, agriculture, and the environment. Students will learn laboratory safety and documentation while acquiring skills in the maintenance and calibration of basic lab equipment, calculation, and preparation of lab solutions and media.

BIO 107 CELL CULTURE (2T, 4E) 4 credits
PREREQUISITE: BIO 103 and BIO 105

The overall objective of this course is to provide a basic understanding of the growth requirements and methodologies associated with the propagation of organisms important to the field of biotechnology. Instruction will focus on growing techniques and long-term maintenance of various cell cultures, including both attached and suspension cell lines. Microbial life cycle and cell culture will be emphasized, including discussion of pathogenic aspects and utilization of microbial transformation and protein production for use in biotechnological processes.

BIO 201 HUMAN ANATOMY AND PHYSIOLOGY I (3T, 2E) 4 credits

Human Anatomy and Physiology I covers the structure and function of the human body. Included is an orientation of the human body; basic principles of chemistry; a study of cells and tissues; metabolism; joints; the integumentary, skeletal, muscular, and nervous systems; and the senses. Dissection, histological studies, gross anatomy, and physiology are featured in the laboratory experience. Laboratory is required.

BIO 202 HUMAN ANATOMY AND PHYSIOLOGY II (3T, 2E) 4 credits
PREREQUISITE: BIO 201

Human Anatomy and Physiology II covers the structure and function of the human body. Included is a study of basic nutrition; basic principles of water; electrolyte; acid-base

balance; and the endocrine, respiratory, digestive, excretory, cardiovascular, lymphatic and reproductive systems. Dissection, histological studies, gross anatomy, and physiology are featured in the laboratory experience. Laboratory is required.

BIO 203 TECHNIQUES IN MOLECULAR BIOLOGY (2T, 4E) 4 credits

PREREQUISITE: BIO 105

This course is an introduction to the major topics in biochemistry and molecular biology. Topics include the major classes of biological molecules, an overview of the major metabolic pathways, advancing technologies, and bioethical issues. The laboratory will provide experience in the isolation and manipulation of DNA and RNA, DNA and protein electrophoresis, and enzymatic and immunological assays.

BIO 220 GENERAL MICROBIOLOGY (2T, 4E) 4 credits

This course includes historical perspectives, cell structure and function, microbial genetics, infectious diseases, immunology, distribution, physiology, culture, identification, classification, and control of microorganisms. The laboratory experience includes micro-techniques, distribution, culture, identification, and control. Laboratories are required.

BIO 240 FIELD BIOLOGY (3T, 2E) 4 credits
PREREQUISITE: BIO 103

This course covers basic principles of taxonomy, classification, and selected ecological concepts. Animal and plant diversity is emphasized through collection, identification, and museum preparation of local flora and fauna. Laboratory is required.

BIO 250 DIRECTED STUDIES IN BIOLOGY (2-8E) 1-4 credits
PREREQUISITE: Permission of instructor

This course is designed for independent study in specific areas of biology chosen by the student in consultation with a faculty member and carried out under faculty supervision.

BIO 251 DIRECTED STUDIES IN BIOLOGY (2-8E) 1-4 credits
PREREQUISITE: BIO 250 and Permission of instructor

This course is designed for independent study in specific areas of biology chosen by the student in consultation with a faculty member and carried out under faculty supervision.

BIO 252 DIRECTED STUDIES IN BIOTECHNOLOGY (1T, 2E) 2 credits
PREREQUISITE/CO-REQUISITE: BIO 203

This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to or at the beginning of the class. Typical projects will expose the student to the industry and provide practical application of laboratory procedures. Upon completion, the student will be able to demonstrate knowledge of the topics as specified by the instructor.

BIO 254 ADVANCED TOPICS IN BIOTECHNOLOGY (1T, 2E) 2-3 credits
PREREQUISITE: BIO 252

In this advanced course, the student will design and implement an independent study that utilizes biotechnological

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methods relevant to local industry or to expand the scope of previous laboratory experience. The projects will include an expansion of previous experiences to design and implement an application as found in local biotechnology industries.

BIO 256 BIOTECHNOLOGY INTERNSHIP (10E) 2 credits

PREREQUISITE/CO-REQUISITE: BIO 254

The internship will provide advanced students the opportunity to develop job and career-related skills while in a work setting. Upon successful completion of this course, the student should be able to apply classroom knowledge to an actual work situation. The work will be developed cooperatively with academic, industrial, and private institutional biotechnology laboratories.

BIO 286, 287 FIELD STUDIES IN PLANT ECOLOGY I and II (1-2T, 2-4E) 2-4 credits each

PREREQUISITE: Permission of instructor

These courses introduce a strong field component into our Biology program and expose students to unique ecosystems like the Great Smoky Mountains National Park and the Chihuahuan Desert of Big Bend National Park in western Texas. These laboratory intensive courses introduce plants in selected communities and emphasize identification, sampling and collecting techniques in the field.

BIO 288, 289 FIELD STUDIES IN MARINE BIOLOGY I and II (1-2T, 2-4E) 2-4 credits each

PREREQUISITE: Permission of instructor

These laboratory intensive courses introduce salt water and marsh environments with emphasis on vertebrates. Pertinent ecological concepts are introduced using sampling, collecting, preserving, and identification techniques. These courses are offered for students to obtain first hand field experience in marine ecosystems especially on the Gulf Coast. In the past, students have studied Marine Biology at the Dauphin Island Sea Lab, the Florida State University Marine Laboratory, Dog Island Sound, St. George Island, taken sampling excursions in the Gulf of Mexico aboard research vessels, and studied ornithology and salt water marshes on the Mississippi Sound coastline.

BASIC SKILLS READING (RDG)

RDG 085 DEVELOPMENTAL READING (3T) 3 credits

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level material.

NOTE: Students who score at or below 66 on the Compass Reading Test will be required to take RDG 085 during their first or second semester at Calhoun.

BASIC STUDY SKILLS (BSS)

BSS 100 STUDY SKILLS (1T) 1 credit

This course is intended for those who placed into credit-level course work but who are not maintaining satisfactory academic progress toward meeting program goals. Topics include study skills, note taking, learning styles and strategies, test taking, goal setting, and self-assessment skills. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

BSS 118 STUDY SKILLS (1T) 1 credit

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

BUSINESS (BUS)

BUS 100 INTRODUCTION TO BUSINESS (3T) 3 credits

This is a survey course designed to acquaint the student with American business as a dynamic process in a global setting. Topics include the private enterprise system, forms of business ownership, marketing, factors of production, personnel, labor, finance, and taxation.

BUS 147 INTRODUCTION TO FINANCE (3T) 3 credits

This course is a survey of monetary and credit systems. Topics include the role of the Federal Reserve System, sources of capital including forms of long-term corporate financing, and consumer credit in the financial structure of our economy.

BUS 150 BUSINESS MATH (3T) 3 credits

This course is a study of practical business mathematics. Topics include fundamental processes of arithmetic with emphasis on decimals and percentages, markup, discounts, bank reconciliation, simple and compound interest, discounting notes, depreciation methods, and present value.

BUS 190 MANAGEMENT WORKSHOP (1-3T) 1 - 3 credits

This course is a part of a series of workshops wherein current topics of interest are presented. They are offered upon demand and can be tailored to the needs of individuals, business and industry.

BUS 190B PROBLEM SOLVING (1T) 1 credit

The goal of this course is to help students improve problem-solving skills. Emphasis is placed on developing the five-step process for problem solving: Defining the Situation, Stating the Goal, Identifying a Solution, Preparing a Plan, and Taking Action.

BUS 190C TEAMBUILDING (1T) 1 credit

The goal of this course is to help students identify fac-

tors and develop the skills necessary for becoming part of a successful team. Emphasis is placed on developing skills in communication, shared leadership, and conflict resolution.

BUS 190D SELF-MANAGEMENT (1T) 1 credit

The goal of this course is to help students build skills necessary to take responsibility and adjust to the changing demands of the workplace. Emphasis is placed on developing abilities to adjust to new technologies or processes, upgrading skills, career planning, and personal transitions.

BUS 190E EMPLOYABILITY SKILLS (1T) 1 credit

The goal of this course is to help students develop skills to make them more employable. Emphasis is placed on developing a professional resume and cover letter, organizing a job search campaign, interviewing, resigning from a position, and accepting new positions.

BUS 190F ORGANIZATIONAL COMMUNICATIONS (1T) 1 credit

The goal of this course is to help students build personal skills that allow them to communicate effectively in the workplace. Emphasis is placed on verbal, nonverbal, and written communications as they relate to professional work habits.

BUS 190G INTERPERSONAL RELATIONS FOR MANAGEMENT (1T) 1 credit

The goal of this course is to help students achieve better interpersonal relationships on the job. Emphasis is placed on the concepts of professional treatment of customers, managing diversity, commitment to quality, managing office politics, developing positive attitudes, and self-discipline.

BUS 190H TIME/PROJECT MANAGEMENT (1T) 1 credit

The goal of this course is to assist students in developing effective time management skills. Emphasis is placed on learning to set priorities, making decisions, delegating, concentrating on specific tasks, and increasing personal productivity.

BUS 190I DIRECTED READINGS IN MANAGEMENT (1T) 1 credit

The goal of this course is to allow students to research a current topic of interest. Topics chosen should benefit the student's professional development or allow for gathering beneficial research for the student's place of work.

BUS 190J ETHICS IN THE WORKPLACE (1T) 1 credit

The goal of this course is to allow students to explore the arena of ethics in the workplace. Emphasis is placed on ethics case studies.

BUS 190K STRESS MANAGEMENT (1T) 1 credit

This course is designed to help students develop skills in managing stress associated with careers in business. Emphasis is placed on developing coping skills such as conflict resolution, delegation, and identifying problems early to avoid unnecessary stress.

BUS 190L DEVELOPING A BUSINESS PLAN (1T) 1 credit

This course is designed to give students the opportunity to develop a personal business plan. The course focuses on the following areas: purpose of a business plan, mechanics of writing a business plan, components of a business plan, and research techniques.

BUS 190M EVALUATING THE ENTREPRENEURIAL PERSONALITY (1T) 1 credit

This course is designed to allow students to identify in themselves and others characteristics that are favorable for the successful entrepreneur. Self-analysis and a study of entrepreneurial traits are included.

BUS 190N FINANCING AN ENTREPRENEURIAL ENTERPRISE (1T) 1 credit

This course is designed to inform students about the options available for financing an entrepreneurial enterprise. The course allows students to investigate possible sources of financing and to study topics such as break-even analysis, fixed and variable costs, and financial statements.

BUS 190P PLANNING FOR SUPERVISING HUMAN RESOURCES (1T) 1 credit

This course is designed to offer insight into the employee relation side of conducting business. Emphasis is placed on identifying employment needs, training, supervising, and motivating employees.

BUS 190Q PLANNING MARKET STRATEGY (1T) 1 credit

This course is designed to allow owners of businesses to develop a market strategy. Included is a discussion of market analysis, competition, sales and distribution, and pricing strategies.

BUS 190R PROMOTIONAL STRATEGIES (1T) 1 credit

This course allows students to look specifically at two kinds of promotional strategies: Advertising and Public Relations. Students explore how each of these strategies strongly affects the success of a business.

BUS 190S CHOOSING A LOCATION FOR A BUSINESS (1T) 1 credit

This course is designed to help students planning to start their own business to choose a suitable location and facility. Course content focuses on site location, purchasing or leasing an existing facility, and arranging layout.

BUS 190T STATISTICAL PROCESS CONTROL (SPC) - VARIABLE DATA (1T) 1 credit

This course covers descriptive statistics, types of data, and how to calculate, plot, and analyze various variable charts such as average and range, median and range, and standard deviations. Variable charts are used with measurable data.

BUS 190U STATISTICAL PROCESS CONTROL (SPC) - ATTRIBUTE DATA (1T) 1 credit

This course addresses the development of non-measur-

Course Descriptions

able data into attribute charts for analysis of a process capability. Type of charts covered are P, NP, C and U with emphasis given to development of P-type charts.

BUS 190V MANAGEMENT FOR ENTREPRENEURS (1T) 1 credit
This course is an overview of the principles of management as they relate to small and self-owned businesses. Emphasis is placed on planning, organizing, and controlling.

BUS 190W CUSTOMER SERVICE STRATEGIES (1T) 1 credit
This course is an overview of the principles of customer service. Emphasis is placed on determining elements of customer satisfaction, creating a customer-focused culture, soliciting and using customer feedback, and building a "relationship" with the customer.

BUS 190X WORKPLACE READINESS (1-3T) 1-3 credits
This course is designed to assess students' workplace skills and help them identify areas of weakness. Skills assessment tools such as WorkKeys will be utilized. Other components of workplace readiness will be included as needed.

BUS 190Y LEADERSHIP SKILLS (1T) 1 credit
This course is an overview of the characteristics of leadership. Emphasis is placed on what effective leaders do, leadership styles, and the differences between leadership and management.

BUS 193 BUSINESS CO-OP I (1T) 1 credit
PREREQUISITE: Successful completion of two (2) business courses
This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to business and related practices in the working environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 194 BUSINESS CO-OP II (1T) 1 credit
PREREQUISITE: BUS 193
This course is a part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to business and related practices in the working environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 195 BUSINESS CO-OP III (1T) 1 credit
PREREQUISITE: BUS 194
This course is a part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to business and related practices in the working environment. The grade is based on the employer's

evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 196 BUSINESS CO-OP IV (1T) 1 credit
PREREQUISITE: BUS 195

This course is a part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to business and related practices in the working environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 197 BUSINESS CO-OP V (1T) 1 credit
PREREQUISITE: BUS 196

This course is a part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to business and related practices in the working environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 215 BUSINESS COMMUNICATIONS (3T) 3 credits
PREREQUISITE: ENG 101

This course covers written, oral, and nonverbal communications. Topics include the application of communication principles to the production of clear, correct, and logically organized faxes, e-mail, memos, letters, resumes, reports and other business communications.

BUS 241 PRINCIPLES OF ACCOUNTING I (3T) 3 credits

This course is designed to provide a basic theory of accounting principles and practices used by service and merchandising enterprises. Emphasis is placed on financial accounting, including the accounting cycle, and financial statement preparation and analysis.

BUS 242 PRINCIPLES OF ACCOUNTING II (3T) 3 credits
PREREQUISITE: BUS 241

This course is a continuation of BUS 241. In addition to a study of financial accounting, this course also places emphasis upon managerial accounting, with coverage of corporations, statement analysis, introductory cost accounting, and use of information for planning, control, and decision making.

BUS 246 ACCOUNTING ON THE MICROCOMPUTER (3T) 3 credits
PREREQUISITE: BUS 241

This course utilizes the microcomputer in a study of accounting principles and practices. Emphasis is on the preparation and analysis of financial statements, measuring business activity, and making rational business decisions.

BUS 248 MANAGERIAL ACCOUNTING (3T) 3 credits
PREREQUISITE: BUS 241
(Course offered only in Spring and Summer Semesters)

This course is designed to familiarize the student with management concepts and techniques of industrial accounting procedures. Emphasis is placed on cost behavior, contribution approach to decision-making, budgeting, overhead analysis, cost-volume-profit analysis, and cost accounting systems.

BUS 253 INDIVIDUAL INCOME TAX (3T) 3 credits

This course is intended to familiarize the student with the fundamentals of the federal income tax laws with primary emphasis on those affecting the individual. Emphasis is placed on gross income determination, adjustments to income, business expenses, itemized deductions, exemptions, capital gains/losses, depreciation, and tax credits. Upon completion of this course, the student will be able to apply the fundamentals of the federal income tax laws affecting the individual. Course offered on Decatur Campus Spring Semester.

BUS 261 BUSINESS LAW I (3T) 3 credits

This course provides an overview of legal principles affecting businesses. Topics include contracts, agency and employment, negotiable instruments, bailments, and sale of goods.

BUS 262 BUSINESS LAW II (3T) 3 credits

This course is a continuation of BUS 261. Topics include legal principles related to partnerships, corporations, real property and leases, insurance, security devices, bankruptcy, trust and estates; government regulations of business and labor; civil and criminal liability; and business security.

BUS 263 THE LEGAL AND SOCIAL ENVIRONMENT OF BUSINESS (3T) 3 credits

This course provides an overview of the legal and social environment for business operations with emphasis on contemporary issues and their subsequent impact on business. Topics include the Constitution, the Bill of Rights, the legislative process, civil and criminal law, administrative agencies, trade regulations, consumer protection, contracts, employment and personal property.

BUS 271 BUSINESS STATISTICS I (3T) 3 credits
PREREQUISITE: MTH 110 or MTH 112 or appropriate score on math placement test

This is an introductory study of basic statistical concepts applied to economic and business problems. Topics include the collection, classification, and presentation of data, statistical description and analysis of data, measures of central tendency and dispersion, elementary probability, sampling, estimating and introduction to hypothesis testing.

BUS 272 BUSINESS STATISTICS II (3T) 3 credits
PREREQUISITE: BUS 271

This course is a continuation of BUS 271. Topics include sampling theory, statistical inference, regression

and correlation, chi square, analysis of variance, time series index numbers, and decision theory.

BUS 275 PRINCIPLES OF MANAGEMENT (3T) 3 credits

This course provides a basic study of the principles of management. Topics include planning, organizing, staffing, directing, and controlling with emphasis on practical business applications.

BUS 279 SMALL BUSINESS MANAGEMENT (3M) 3 credits

This course provides an overview of the creation and operation of a small business. Topics include buying a franchise, starting a business, identifying capital resources, understanding markets, managing customer credit, managing accounting systems, budgeting systems, inventory systems, purchasing insurance, and the importance of appropriate legal counsel.

BUS 280 INDUSTRIAL MANAGEMENT (3T) 3 credits

This course provides an overview of management in an industrial setting. Topics include operations analysis, research and development, physical facilities, production planning, productivity improvement, product flow, quality control, jobs and wages, and employee motivation.

BUS 285 PRINCIPLES OF MARKETING (3T) 3 credits

This course provides a general overview of the field of marketing. Topics include marketing strategies, channels of distribution, marketing research, and consumer behavior.

BUS 291 ALTERNATING BUSINESS CO-OP I (1-3T) 1-3 credits

PREREQUISITE: Permission of instructor

This two-course sequence allows students to alternate semesters of full-time work in a job closely related to the student's academic major with semesters of full-time academic work. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on the employer's evaluation of student productivity, evaluative reports submitted by the student, and the development and assessment by the student of a learning contract.

BUS 292 ALTERNATING BUSINESS CO-OP II (1-3T) 1-3 credits

PREREQUISITE: Permission of instructor

This two-course sequence allows students to alternate semesters of full-time work in a job closely related to the student's academic major with semesters of full-time academic work. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on the employer's evaluation of student productivity, evaluative reports submitted by the student, and the development and assessment by the student of a learning contract.

BUS 296 BUSINESS INTERNSHIP I (3T) 3 credits
PREREQUISITE: Minimum 6 semester hours completed. Minimum GPA 2.0 (C)

Course Descriptions

This two-course sequence allows the student to work part-time on a job closely related to his or her academic major while attending classes on a full-time basis. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on a term paper, job-site visits by the instructor, the employer's evaluation of the student, and the development and assessment by the student of a learning contract.

BUS 297 BUSINESS INTERNSHIP II (3T) 3 credits
PREREQUISITE: Minimum 6 semester hours completed. Minimum GPA 2.0 (C)

This two-course sequence allows the student to work part-time on a job closely related to his or her academic major while attending classes on a full-time basis. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on a term paper, job-site visits by the instructor, the employer's evaluation of the student, and the development and assessment by the student of a learning contract.

CHEMISTRY (CHM)

CHM 104 INTRODUCTION TO INORGANIC CHEMISTRY (3T, 2E) 4 credits
PREREQUISITE: MTH 098 Elementary Algebra or equivalent math placement score.

This is a survey course of general chemistry for students who do not intend to major in science or engineering and may not be substituted for CHM 111. Lecture will emphasize the facts, principles, and theories of general chemistry including math operations, matter and energy, atomic structure, symbols and formulas, nomenclature, the periodic table, bonding concepts, equations, reactions, stoichiometry, gas laws, phases of matter, solutions, pH, and equilibrium reactions. Laboratory is required.

CHM 105 INTRODUCTION TO ORGANIC CHEMISTRY (3T, 2E) 4 credits
PREREQUISITE: CHM 104
(Course taught in Spring Semester of even numbered years only)

This is a survey course of organic chemistry and biochemistry for students who do not intend to major in science or engineering. Topics will include basic nomenclature, classification of organic compounds, typical organic reactions, reactions involved in life processes, function of biomolecules, and the handling and disposal of organic compounds. Laboratory is required.

CHM 111 COLLEGE CHEMISTRY I (3T, 2E) 4 credits
PREREQUISITE: MTH 112, Precalculus Algebra or CHM 099

This is the first course in a two-semester sequence designed for the science or engineering major who is expected to have a strong background in mathematics. Topics in this course include measurements, nomenclature, stoichiometry, atomic structure, equations and reac-

tions, basic concepts of thermochemistry, chemical and physical properties, bonding, molecular structure, gas laws, kinetic-molecular theory, condensed matter, solutions, colloids, and some descriptive chemistry topics. Laboratory is required.

CHM 112 COLLEGE CHEMISTRY II (3T, 2E) 4 credits
PREREQUISITE: CHM 111

This is the second course in a two-semester sequence designed primarily for the science and engineering student who is expected to have a strong background in mathematics. Topics in this course include chemical kinetics, chemical equilibria, acids and bases, ionic equilibria of weak electrolytes, solubility product principle, chemical thermodynamics, electrochemistry, oxidation-reduction, nuclear chemistry, an introduction to organic chemistry and biochemistry, atmospheric chemistry, and selected topics in descriptive chemistry including the metals, nonmetals, semi-metals, coordination compounds, transition compounds, and post-transition compounds. Laboratory is required.

CHM 220 QUANTITATIVE ANALYSIS (3T, 2E) 4 credits
PREREQUISITE: CHM 112
(Course Taught infrequently, only as enrollment demands)

This course covers the theories, principles, and practices in standard gravimetric, volumetric, calorimetric, and electro-metric analysis with special emphasis on equilibrium in acid-base and oxidation-reduction reactions and stoichiometry of chemical equations. Laboratory is required and will include classical techniques in chemical analysis, modern methods of chemical separation, and basic instrumental techniques.

CHM 221 ORGANIC CHEMISTRY I (3T, 2E) 4 credits
PREREQUISITE: CHM 112

This is the first course in a two-semester sequence. Topics in this course include nomenclature, structure, physical and chemical properties, synthesis, and typical reactions for aliphatic, alicyclic, and aromatic compounds with special emphasis on reaction mechanisms, spectroscopy, and stereochemistry. Laboratory is required and will include the synthesis and confirmation of representative organic compounds with emphasis on basic techniques.

CHM 222 ORGANIC CHEMISTRY II (3T, 2E) 4 credits
PREREQUISITE: CHM 221

This is the second course in a two-semester sequence. Topics in this course include nomenclature, structure, physical and chemical properties, synthesis, and typical reactions for aliphatic, alicyclic, aromatic, and biological compounds, polymers and their derivatives, with special emphasis on reaction mechanisms, spectroscopy, and stereochemistry. Laboratory is required and will include the synthesis and confirmation of representative organic compounds with emphasis on basic techniques.

CHM 250 DIRECTED STUDIES IN CHEMISTRY (1-3T) 1-3 credit
PREREQUISITE: Permission of the instructor.

This course is designed for independent study in specific areas of chemistry chosen in consultation with a faculty

member and carried out under faculty supervision. This course may be repeated three (3) times for credit.

CHILD DEVELOPMENT (CHD)

CHD 100 INTRODUCTION OF EARLY CARE

AND EDUCATION OF CHILDREN (3T)

3 credits

This course introduces students to the child education and care profession. It is designed to increase understanding of the basic concepts of child development and the developmental characteristics of children from birth through age 8/9 years. This course is the foundation for planning appropriate activities for children and establishing appropriate expectations of young children. This class also offers an opportunity to study the developmental domains (social, emotional, cognitive/language and physical). Course includes observations of the young child in early childhood settings.

CHD 201 CHILD GROWTH AND DEVELOPMENT PRINCIPLES (3T)

3 credits

This course is a systematic study of child growth and development from conception through early childhood. Emphasis is on principles underlying physical, mental, emotional, and social development, and on methods of child study, and practical implications. Upon completion, students will be able to use knowledge of how young children differ in development and approaches to learning to provide opportunities that support the physical, social, emotional, language, cognitive, and aesthetic development. PSY 211 may be used as a suitable substitute for this course for the AAS degree program.

CHD 202 CHILDREN'S CREATIVE EXPERIENCES (3T)

3 credits

This course focuses on fostering creativity in preschool children and developing a creative attitude in teachers. Topics include selecting and developing creative experiences in language arts, music, art, science, math and movement with observation and participation with young children required. On completion, students will be able to select and implement creative and age-appropriate experiences for young children.

CHD 203 CHILDREN'S LITERATURE AND LANGUAGE DEVELOPMENT (3T)

3 credits

This course surveys appropriate literature and language arts activities designed to enhance young children's speaking, listening, pre-reading, and writing skills. Emphasis is placed on developmental appropriateness as related to language. Upon completion, students should be able to create, evaluate and demonstrate activities which support a language-rich environment for young children.

*CHD 204 METHODS AND MATERIALS FOR TEACHING CHILDREN (3T)

3 credits

This course introduces basic methods and materials used in teaching young children. Emphasis is placed on student's compiling a professional resource file of activities used for teaching math, language arts, and science and social studies concepts. Upon completion, students will be able to demonstrate basic methods of creating learning

experiences using developmentally appropriate techniques, materials and realistic expectations. Course includes observations of young children in a variety of childcare environments.

CHD 205 PROGRAM PLANNING FOR EDUCATING YOUNG CHILDREN (3T)

3 credits

This course provides students with knowledge to develop programs for early child development. Specific content includes a review of child development concepts and program contents. Upon completion, students will be able to develop and evaluate effective programs for the education of young children.

CHD 206 CHILDREN'S HEALTH AND SAFETY (3T)

3 credits

This course introduces basic health, nutrition and safety management practices for young children. Emphasis is placed on how to set up and maintain safe, healthy environments for young children including specific procedures for infants and toddlers and procedures regarding childhood illnesses and communicable diseases.

CHD 208 ADMINISTRATION OF CHILD DEVELOPMENT PROGRAMS (3T)

3 credits

This course includes appropriate administrative policies and procedures relevant to preschool programs. Topics include local, state and federal regulations; budget planning; record keeping; personnel policies and parent involvement. Upon completion, students should be able to identify elements of a sound business plan, develop familiarity with basic record-keeping techniques, and identify elements of a developmentally appropriate program.

CHD 209 INFANT AND TODDLER EDUCATION PROGRAMS (3T)

3 credits

This course focuses on child development from infancy to thirty-five months of age with emphasis on planning programs using developmentally appropriate material. Emphasis is placed on positive ways to support an infant or toddler's social, emotional, physical and intellectual development. Upon completion, students should be able to plan an infant-toddler program and environment, that is appropriate and supportive of the families and the children.

CHD 210 EDUCATING EXCEPTIONAL CHILDREN (3T)

3 credits

This course explores the many different types of exceptionalities found in young children. Topics include speech, language, hearing and visual impairments; gifted and talented children; mental retardation; emotional, behavioral, and neurological handicaps. Upon completion, students should be able to identify appropriate strategies for working with children.

CHD 214 FAMILIES AND COMMUNITIES IN EARLY CHILDCARE AND EDUCATION PROGRAMS (3T)

3 credits

This course provides students with information about working with diverse families and communities. Students will be introduced to family and community settings, the importance of relationships with children, and the pressing needs of today's society. Students will study and practice techniques for developing these important relationships and effective communication skills.

Course Descriptions

CHD 215 SUPERVISED PRACTICAL EXPERIENCES IN CHILD DEVELOPMENT (3E) 3 credits
PREREQUISITE: Permission of instructor
 This course provides a minimum of 90 hours of hands-on, supervised experience in an approved program for young children. Students will develop a portfolio documenting experiences gained during this course.

CHD 220 PARENTING SKILLS (3T) 3 credits
 This course introduces childcare providers to important issues in parenting education, beginning with prenatal concerns and continuing through childhood years. Emphasis is placed on using effective parenting and childrearing practices including appropriate guidance methods. Students learn to apply parenting skills for diverse families. Upon completion, students will be more effective in working with families and young children.

***Courses required in the Child Development Associate (CDA) Certification for employees currently employed within the industries.**

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 111 WORD PROCESSING SOFTWARE APPLICATIONS (3T) 3 credits
 This course provides students with hands-on experience using word processing software. Students will develop skills common to most word processing software by developing a wide variety of documents. Emphasis is on planning, developing, and editing functions associated with word processing. (Formerly CIS 197U)

CIS 113 SPREADSHEET SOFTWARE APPLICATIONS (3T) 3 credits
 This course provides students with hands-on experience using spreadsheet software. Students will develop skills common to most spreadsheet software by developing a wide variety of spreadsheets. Emphasis is on planning, developing, and editing functions associated with spreadsheets. (Formerly CIS 197X)

CIS 115 PRESENTATION GRAPHICS SOFTWARE APPLICATIONS (3T) 3 credits
 This course provides students with hands-on experience using presentation graphics software. Students will develop skills common to most presentation graphics software by developing a wide variety of presentations. Emphasis is on planning, developing, and editing functions associated with presentations. (Formerly CIS 197Z)

CIS 117 DATABASE MANAGEMENT SOFTWARE APPLICATIONS (3T) 3 credits
 This course provides students with hands-on experience using database management software. Students will develop skills common to most database management software by developing a wide variety of databases. Emphasis is on planning, developing, and editing functions associated with database management. (Formerly CIS 197W)

CIS 130 INTRODUCTION TO INFORMATION SYSTEMS (3T) 3 credits
 This course is an introduction to computers that reviews computer hardware and software concepts such as equipment, operations, communications, programming and their past, present and future impact on society. Topics include computer hardware, various types of computer software, communication technologies and program development using computers to execute software packages and/or to write simple programs. Upon completion, students should be able to describe and use the major components of selected computer software and hardware.

CIS 146 MICROCOMPUTER APPLICATIONS (3T) 3 credits
 This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. This course will help prepare students for the MOS and IC3 certification.

CIS 147 ADVANCED MICROCOMPUTER APPLICATIONS (3T) 3 credits
PREREQUISITE: CIS 146
 This course is a continuation of CIS 146 in which students utilize the advanced features of topics covered in CIS 146. Advanced functions and integration of word processing, spreadsheets, database, and presentation packages among other topics are generally incorporated into the course and are to be applied to situations found in society and business. Upon completion, the student should be able to apply the advanced features of selected software appropriately to typical problems found in society and business. This course will help prepare students for the MOS certification.

CIS 148 POST ADVANCED MICRO APPLICATIONS (3T) 3 credits
PREREQUISITE: CIS 147
 This course builds on concepts associated with various microcomputer applications with emphasis on advanced features commonly found in software applications. Advanced features of word processing, spreadsheets, database, and presentation packages are introduced. Features such as macros, Visual Basic Applications, and online features are included in the content of the course. Upon completion, the student will be able to apply the advanced features of selected software to the workplace. This course will help prepare students for the MOS certification.

CIS 150 INTRODUCTION TO COMPUTER LOGIC AND PROGRAMMING (3T) 3 credits
 This course includes logic, design and problem solving techniques used by programmers and analysts in addressing and solving common programming and computing problems. The most commonly used techniques of flowcharts, structure charts, and pseudo code will be covered and students will be expected to apply the techniques to designated situations and problems.

(Formerly CIS 110)

CIS 151 GRAPHICS FOR THE WORLD WIDE WEB (3T) 3 credits
This course will provide an overview to the theory, tools and techniques necessary for creating high-quality graphics using design software tools.

CIS 158 FUNDAMENTALS OF WIRELESS LANs (3T) 3 credits
This course provides an introduction to the design, planning, implementation, operation, and troubleshooting of wireless networks. The goal of Fundamentals of Wireless LANs is to offer students the most current knowledge of complex networking concepts as well as real-world experience that the future demands.

CIS 160 MULTIMEDIA FOR THE WORLD WIDE WEB (3T) 3 credits
This course covers contemporary, interactive multimedia technology systems, focusing on types, applications, and theories of operation. In addition to the theoretical understanding of the multimedia technologies, students will learn how to digitize and manipulate images, voice, and video materials, including authoring a web page utilizing multimedia.

CIS 161 INTRODUCTION TO NETWORKING COMMUNICATIONS (3T) 3 credits
PREREQUISITE: Previous CIS Course
This course is designed to introduce students to basic concepts of computer networks. Emphasis is placed on terminology and technology involved in implementing selected networked systems. The course covers various network models, topologies, communications protocols, transmission media, networking hardware and software, and network troubleshooting. Students gain hands-on experience in basic networking. This course further helps prepare students for certification.

CIS 171 FUNDAMENTALS OF UNIX/LINUX I (2T, 2E) 3 credits
PREREQUISITE: CIS 150
This course presents fundamental applications in Unix/Linux. Included in this course are skills development for OS installation and setup, recompile techniques, system configuration settings, file/folder structures and types, run levels, basic network applications and scripting. Additionally, the course presents security features from an administrative and user consideration.

CIS 172 FUNDAMENTALS OF UNIX/LINUX II (2T, 2E) 3 credits
PREREQUISITE: CIS 171
This course is a continuation of CIS 171 and includes advanced features of Unix/Linux. Included in this course are web applications, integrated network configurations, file transfer, server administration, system controls, iptables/firewall to secure Unix/Linux systems, and strategic user-group applications specific to administration network control.

CIS 196U COMPUTER LITERACY FOR SENIOR ADULTS (3T) 3 credits

CIS 196V ADVANCED COMPUTER LITERACY FOR SENIOR ADULTS (3T) 3 credits

This course introduces such topics as word processing, spreadsheet, presentation software, graphics, desktop management, and database. Although it is open to all students, the focus is on the learning style and interests of the senior population

CIS 197V MICROSOFT WORD EXPERT (3T) 3 credits
This course is designed to prepare students to take the Microsoft Office Specialist certification exam in Microsoft Word (expert level). Topics emphasized are Microsoft Office Specialist exam objectives and test-taking skills. The student will demonstrate mastery of expert level word processing skills through hands-on, performance-based lab exercises. Practice test software will provide immediate feedback on areas where additional practice is needed. Calhoun is an authorized Microsoft testing center.

CIS 197Y MICROSOFT EXCEL EXPERT (3T) 3 credits
This course is designed to prepare students to take the Microsoft Office Specialist certification exam in Microsoft Excel (expert level). Topics emphasized are Microsoft Office Specialist exam objectives and test-taking skills. The students will demonstrate mastery of expert level spreadsheet skills through hands-on, performance-based lab exercises. Practice test software will provide immediate feedback on areas where additional practice is needed. Calhoun is an authorized Microsoft testing center.

CIS 197A MICROSOFT OUTLOOK (3T) 3 credits
This course is designed to prepare students to take the Microsoft Office Specialist certification exam in Microsoft Outlook. Topics emphasized are Microsoft Office Specialist exam objectives and test-taking skills. The students will demonstrate mastery of Outlook's integrated mail and scheduling skills through hands-on, performance-based lab exercise. Practice test software will provide immediate feedback on areas where additional practice is needed. Calhoun is an authorized Microsoft testing center.

CIS 197B MICROSOFT PROJECT (3T) 3 credits
This course teaches the concepts of and the technical skills of Microsoft Project. Students will gain hands-on experience in managing production and other types of schedules. Topics include resource allocation, budgeting, adjusting time and scope, tracking cost, reporting, and balancing resource workloads.

CIS 197C DREAMWEAVER (3T) 3 credits
This course introduces Macromedia Dreamweaver, a web authoring tool. Topics include developing and publishing a basic web page, working with text and graph-

Course Descriptions

ics, building links and tables, collecting data, using layers, adding multimedia elements, and managing library items and style sheets.

interactivity to HTML pages. Upon completion, the student will demonstrate knowledge of the topics through projects and appropriate tests. (Formerly CIS 244)

CIS 197D FLASH (3T) 3 credits
This course introduces Macromedia Flash, a software tool used in designing web pages. Topics include creating animation, drawing, creating special effects, preparing and publishing movies, importing graphics, adding sounds, and using basic ActionScript. Students will build and publish web pages.

CIS 212 VISUAL BASIC PROGRAMMING (3T) 3 credits
PREREQUISITE: CIS 110
This course emphasizes Basic programming using a graphical user interface. The course will introduce such topics as advanced file handling techniques, simulation, and other selected areas. Upon completion, the student will be able to demonstrate knowledge of the topics through programming projects and appropriate tests.

CIS 197E FIREWORKS (3T) 3 credits
This course introduces Macromedia Fireworks, a software tool that is tightly integrated with Flash and Dreamweaver. Using Fireworks, students will learn to produce web graphics and to build complex interactivity into web pages. Topics include designing graphics, working with vector objects and bitmaps, using text, managing images by using layers, exporting graphics, and designing interactive web graphics.

CIS 213 ADVANCED VISUAL BASIC PROGRAMMING (3T) 3 credits
PREREQUISITE: CIS 212
This course is a continuation of CIS 212, Visual Basic. It is designed to enhance student skills in Visual Basic, with an emphasis on understanding techniques and procedures for developing projects using an object oriented language.

CIS 197F FREEHAND (3T) 3 credits
This course introduces Macromedia Freehand, a software tool used with other Macromedia Suite products to enhance web page drawings. Topics include creating images, using drawing tools, working with colors, applying fills and strokes, and inserting and formatting text.

CIS 222 DATABASE MANAGEMENT SYSTEMS (3T) 3 credits
This course will discuss database system architectures. It will teach students how to design, normalize and use a database, and link these to the Web. Students will design and build a database-enabled Web site. Upon completion, the student will be able to demonstrate knowledge of the topics through projects and appropriate tests.

CIS 197G WEB PAGE SCRIPTING (Perl) (3T) 3 credits
PREREQUISITE: Previous CIS Course
This course introduces Perl, a popular and widely used cross-platform programming language. Topics include fundamentals of Perl, including data types, control structures, I/O operations, regular expressions, arrays, and functions. The course also explores the use of Perl in developing CGI (Common Gateway Interface) programs. (Formerly CIS 282)

CIS 223 THREE DIMENSIONAL COMPUTER MODELING (3T) 3 credits
PREREQUISITE: Previous CIS Course
This course is a study in 3D computer modeling and 3D painting beginning with primitive shapes and creating compelling 3D objects for use in model libraries, games, print material, web sites, visual simulation, and architectural applications. Powerful operations for modeling and 3D painting are incorporated into an interface that is simple and intuitive to use.

CIS 207 INTRODUCTION TO WEB DEVELOPMENT (3T) 3 credits
PREREQUISITE: CIS 146
This course is an introduction to Web page development techniques. Topics in this course include techniques and strategies for creating good Web pages. Upon completion, the student will be able to demonstrate knowledge of the topics through Web page development projects and appropriate tests. (Formerly CIS 198)

CIS 224 THREE DIMENSIONAL COMPUTER ANIMATION (3T) 3 credits
PREREQUISITE: Previous CIS Course
This course is a study in 3D computer animation. Course contents include a review of 3D modeling, rendering the 3D animations, compositing and special effects for both video and film recording, storyboarding and sound design, technical testing and production estimates and scheduling.

CIS 208 INTERMEDIATE WEB DEVELOPMENT (3T) 3 credits
This course introduces students to basics of navigating the World Wide Web and coding simple web pages using an authoring tool such as Front Page. (Formerly CIS 197T)

CIS 249 MICROCOMPUTER OPERATING SYSTEMS (3T) 3 credits
PREREQUISITE: Previous CIS Course
This course provides an introduction to microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with the aid of its system programs. Upon completion, students should understand the function and role of the operating system, its operational characteristics, its configuration,

CIS 209 ADVANCED WEB DEVELOPMENT (3T) 3 credits
PREREQUISITE: CIS 207 and CIS 255
This course will introduce students to a scripting language. Topics include objects, arrays, methods, and functions. Students will use a scripting language to add

	how to execute programs, and efficient disk and file management. (Formerly CIS 278)	
CIS 250	E-COMMERCE (3T) This course is an introduction into e-commerce. Topics include marketing, building an e-commerce store, security, and electronic payment systems. Upon completion, students will be able to building an e-commerce presence.	3 credits
CIS 251	C++ PROGRAMMING (3T) PREREQUISITE: CIS 110 This course is an introduction to the C++ programming language. This course is intended as a first course in problem-solving and program design. Topics covered include program style, algorithm and data structuring and modularization. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.	3 credits
CIS 252	ADVANCED C++ PROGRAMMING (3T) PREREQUISITE: CIS 251 This course is an advanced object-oriented programming course and covers advanced program development techniques and concepts in the context of an object-oriented language. Subject matter includes object-oriented analysis, encapsulation, inheritance, polymorphism (operator and function overloading), information hiding, abstract data types, reuse, dynamic memory allocation, and file manipulation. Upon completion, students should be able to develop a hierarchical class structure necessary to the implementation of an object-oriented software system.	3 credits
CIS 255	JAVA PROGRAMMING (3T) PREREQUISITE: CIS 110 This course is a first course sequence in program design and implementation in the Java programming language using hands-on programming assignments, class demonstrations, and lectures. Topics include basic features of Java program structures, Java's built-in class libraries, data types, programming control structures, and object-oriented programming concepts.	3 credits
CIS 256	ADVANCED JAVA (3T) PREREQUISITE: CIS 255 This course is a second course of a sequence using the Java programming language. Topics include: Sun's Swing GUI components, JDBC, JavaBeans, RMI, servlets, and Java media framework. Upon completion, the student will be able to demonstrate knowledge of the topics through programming projects and appropriate exams. (Formerly CIS 293)	3 credits
CIS 268	SOFTWARE SUPPORT (3T) PREREQUISITE: Previous CIS Course This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. The class will help to prepare participants for the A+ Certification sponsored by CompTIA. (Formerly CIS 266)	3 credits

CIS 269	HARDWARE SUPPORT (3T) PREREQUISITE: Previous CIS Course This course provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants for the A+ Certification sponsored by CompTIA. (Formerly CIS 267)	3 credits
CIS 270	CISCO I (3T) This course is the first part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on the physical part of networking including basic electronics, computer basics, network basics, addressing, number conversions, cabling, and planning. After completing this course, the student will be able to: identify the functions of each layer of the OSI reference model; describe data link and network addresses; define and describe the function of the MAC address; explain the five conversion steps of data encapsulation; describe the different classes of IP addresses and subnetting; identify the functions of the TCP/IP network-layer protocols.	3 credits
CIS 271	CISCO II (3T) Prerequisite: CIS 270 This course is the second part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on router configuration. After completing this course the student will be able to: prepare the initial configuration of a router and enable IP; control router passwords and identification; configure IP addresses; add the RIP and IGRP routing protocols to a configuration.	3 credits
CIS 272	CISCO III (3T) PREREQUISITE: CIS 271 This course is the third part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on LAN design, routing, switching, and network administration. After completing this course the student will be able to: describe LAN segmentation using bridges, routers, and switches; distinguish between cut-through and store and forward LAN switching; describe the operation of the Spanning Tree Protocol and its benefits; describe the benefits of virtual LANs.	3 credits
CIS 273	CISCO IV (3T) PREREQUISITE: CIS 272 This course is the fourth part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on WANs and WAN design. After completing this course, the student will be able to: differentiate between LAPB, Frame Relay, ISDN, HDLC, PPP, and DDR; list commands to configure Frame Relay LMI, maps, and sub interfaces; identify PPP operations to encapsulate WAN data on Cisco routers; identify ISDN protocols, function groups, reference points, and channels; describe Cisco's implementation of ISDN BRI.	3 credits

Course Descriptions

- CIS 279 NETWORK INFRASTRUCTURE DESIGN (3T) 3 credits**
PREREQUISITE: Previous CIS Course
This course provides a study of network infrastructure design. Topics included in this course are strategies for planning, implementing, and maintaining server availability and security, client addressing schemes, name resolution, routing, remote access, and network security. Students gain experience by designing plans for implementing common network infrastructure and protocols.
- CIS 280 NETWORK SECURITY (3T) 3 credits**
This course provides a study of threats to network security and methods of securing a computer network from such threats. Topics included in this course are security risks, intrusion detection, methods of securing authentication, network access, remote access, Web access, and wired and wireless network communications. Upon completion, students will be able to identify security risks and describe appropriate counter measures.
- CIS 289 WIRELESS NETWORKING (3T) 3 credits**
The purpose of this course is to allow students to explore current issues related to wireless technology. Students will be able to develop and maintain wireless networks using advancements in current technology.
- CIS 296 SPECIAL TOPICS (6E) 3 credits**
This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered. Upon completion, the student will be able to demonstrate specified skills.
- CIS 297 CO-OP FOR CIS II (3T) 3 credits**
This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract
- CIS 299 DIRECTED STUDIES IN COMPUTER SCIENCE (3T) 3 credits**
PREREQUISITE: Permission of instructor
This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to or at the beginning of the class. Upon completion, the student will be able to demonstrate knowledge of the topics as specified by the instructor.

CLINICAL LABORATORY TECHNOLOGY (CLT)

- CLT 100 PHLEBOTOMY (1T, 3C) 2 credits**
This course covers the basic techniques used in the collection of blood specimens. Presentation includes equipment and additives, basic anatomy, and techniques for safe and effective venipuncture. Upon completion, students should be able to correctly perform venipuncture. (See specific enrollment requirements listed under CLT – AAS Degree Program of Study)
- CLT 106 CLINICAL CALCULATIONS AND STATISTICS (2T) 2 credits**
PREREQUISITE: Permission of course instructor
This course incorporates practical application of mathematical concepts in the clinical laboratory. Instruction includes the metric system, solution preparation, dilutions, and other laboratory calculations. Upon completion, students should be able to make determinations of precision and accuracy using statistical data for various laboratory departments.
- CLT 111 URINALYSIS & BODY FLUIDS (2T, 2E) 3 credits**
PREREQUISITE: Required admission to the CLT program
This course focuses on the theory and techniques in the examination of urine and other body fluids. The student is introduced to the physical and chemical properties of these fluids as well as microscopic examination of sediment and the identification of cells and crystals. Upon completion, students should be able to perform basic urinalysis and correlate laboratory results to renal disorders and other disease states.
- CLT 121 CLT HEMATOLOGY (3T, 4E) 5 credits**
PREREQUISITE: Required admission to the CLT program
In this course, the theory and techniques of hematology are covered. The student is presented with blood components, normal and abnormal cell morphology, hemostasis, and selected automated methods. Upon completion, students should be able to perform various procedures including preparation and examination of hematologic slides and relate results to specific disorders.
- CLT 131 LABORATORY TECHNIQUES (2T, 2E) 3 credits**
PREREQUISITE: Required admission to the CLT program
This course covers the basic principles and techniques used in the clinical laboratory. Emphasis is placed on terminology, basic microscopy, safety, and computations. Upon completion, students should be able to perform various basic laboratory analyses and utilize basic theories of laboratory principles.
- CLT 141 CLT MICROBIOLOGY I (3T, 4E) 5 credits**
PREREQUISITE: Required admission to the CLT program
The student is presented with the theories, techniques, and methods used in basic bacteriology. Focus is on bacterial isolation, identification, and susceptibility testing. Upon completion, students should be able to select media, isolate and identify microorganisms, and discuss modern concepts of epidemiology. CORE
- CLT 142 CLT MICROBIOLOGY II (3T, 4E) 5 credits**
PREREQUISITE: Required admission to the CLT program
The student is presented with the theories, techniques, and

methods used in basic parasitology, mycology, and virology. Emphasis is placed on special bacteria, identification, life cycles, culture growth, and pathological states of infection and infestation. Upon completion, students should be able to identify certain parasites, demonstrate various staining and culture procedures, and discuss the correlation of certain microorganisms to pathological conditions. CORE

CLT 151 CLT CLINICAL CHEMISTRY (3T, 4E) 5 credits
PREREQUISITE: Required admission to the CLT program

This course emphasizes theories and techniques in basic and advanced clinical chemistry. Coverage includes various methods of performing biochemical analyses on clinical specimens. Upon completion, students should be able to apply the principles of clinical chemistry, evaluate quality control, and associate abnormal test results to clinical significance. CORE

CLT 161 CLT INTEGRATED LABORATORY SIMULATION (4E) 2 credits
PREREQUISITE: Required admission to the CLT program

This course provides an opportunity for the student to perform clinical laboratory procedures in all phases of laboratory testing as a review of previous laboratory courses. Emphasis is placed on case studies, organization of tasks, timing, accuracy, and simulation of routine operations in a clinical laboratory. Upon completion, students should be able to organize tasks and perform various basic laboratory analyses with accuracy and precision. CORE

CLT 181 CLT IMMUNOLOGY (1T, 2E) 2 credits
PREREQUISITE: Required admission to the CLT program

Theory and techniques in immunology are presented to the student. Emphasis is placed on the basic principles of the immune system, serologic testing, the production of specific antibodies and their use in the identification of infectious organisms. Upon completion, students should be able to relate basic principles of immunology, describe techniques for analytical methods utilizing immunological concepts, and correlate results of analyses to certain disease states.

CLT 191 CLT IMMUNOHEMATOLOGY (3T, 4E) 5 credits
PREREQUISITE: Required admission to the CLT program

Theory and techniques in immunohematology are presented to the student. In this course coverage includes antigen and antibody reactions including blood typing, antibody detection and identification, and compatibility testing. Upon completion, students should be able to apply theories and principles of immunohematology to procedures for transfusion and donor services and correlate blood banking practices to certain disease states and disorders. CORE

CLT 294 CLINICAL LABORATORY PRACTICUM I (9C) 3 credits
PREREQUISITE: Required admission to the CLT program

This supervised practicum is within the clinical setting and provides laboratory practice in hematology and urinalysis. Emphasis is placed on clinical skills and performance in areas such as specimen preparation and examination, instrumentation, reporting of results, management of data and quality control. Upon completion, students should be able to process specimens, perform analyses utilizing various methods including instrumentation, report results, manage data and quality control using information systems.

CLT 295 CLINICAL LABORATORY PRACTICUM II (9C) 3 credits

PREREQUISITE: Required admission to the CLT program

This supervised practicum is within the clinical setting and provides laboratory practice in microbiology. Emphasis is placed on clinical skills and performance in areas such as recovery, isolation, culturing and identification of microorganisms. Upon completion, students should be able to isolate, culture, analyze microorganisms utilizing various methods, report results, manage data and quality control using information systems.

CLT 296 CLINICAL LABORATORY PRACTICUM III (9C) 3 credits

PREREQUISITE: Required admission to the CLT program

This supervised practicum is within the clinical setting and provides laboratory practice in serology and immunohematology. Emphasis is placed on clinical skills and performance in areas such as the detection and identification of antibodies, the typing of blood, and compatibility testing of blood and blood components. Upon completion, students should be able to perform the screening for and identification of antibodies, compatibility testing, record and manage data and quality control using information systems. CORE

CLT 297 CLINICAL LABORATORY PRACTICUM IV (9C) 3 credits

PREREQUISITE: Required admission to the CLT program

This supervised practicum is within the clinical setting and provides laboratory practice in clinical chemistry. Emphasis is placed on clinical skills and performance in areas such as computerized instrumentation and the ability to recognize technical problems. Upon completion, students should be able to perform biochemical analyses by various methods, including testing utilizing computer-oriented instrumentation, report test results, manage patient data and quality control statistics using information systems. CORE

COSMETOLOGY INSTRUCTOR TRAINING (CIT)

CIT 211 TEACHING & CURRICULUM DEVELOPMENT (3T) 3 credits

PREREQUISITE: Licensed managing cosmetologist; 1 year experience

This course focuses on the principles of teaching, teaching maturity, personality conduct, and the development of a cosmetology curriculum. Emphasis is placed on teacher roles, teaching styles, teacher challenges, aspects of curriculum development, and designing individual courses. Upon completion, the student should be able to describe the role of teacher, identify means of motivating students, develop a course outline, and develop lesson plans.

CIT 212 TEACHER MENTORSHIP (9M) 3 credits

COREQUISITE: CIT 211 or Permission of instructor

PREREQUISITE: Licensed managing cosmetologist; 1 year experience

This course is designed to provide the practice through working with a cosmetology instructor in a mentoring relationship. Emphasis is placed on communication, student assessment, and assisting students in the lab. Upon com-

Course Descriptions

pletion, the student should be able to communicate with students, develop a course of study, and apply appropriate teaching methods.

CIT 213 LESSON PLAN DEVELOPMENT (3T) 3 credits
COREQUISITE: CIT 211, 212, or Permission of instructor
PREREQUISITE: Licensed managing cosmetologist; 1 year experience

The course introduces students to methods for developing lesson plans. Emphasis is placed on writing lesson plans and on the four-step teaching plan. Upon completion, students should be able to write daily lesson plans and demonstrate the four-step teaching method.

CIT 221 LESSON PLAN IMPLEMENTATION (9M) 3 credits
PREREQUISITE: Licensed managing cosmetologist; 1 year experience

This course is designed to provide practice in preparing and using lesson plans. Emphasis is placed on organizing, writing and presenting lesson plans using the four-step teaching method. Upon completion, students should be able to prepare and present a lesson using the four-step teaching method.

CIT 222 INSTRUCTIONAL MATERIALS AND METHODS (3T) 3 credits
COREQUISITE: CIT 223 or Permission of instructor
PREREQUISITE: Licensed managing cosmetologist; 1 year experience

This course focuses on visual and audio aids and materials. Emphasis is placed on the use and characteristics of instructional aids. Upon completion, the student should be able to prepare teaching aids and determine their most effective use.

CIT 223 INSTRUCTIONAL MATERIALS AND METHODS APPLICATIONS (9M) 3 credits
COREQUISITE: CIT 222 or Permission of instructor
PREREQUISITE: Licensed managing cosmetologist; 1 year experience

This course is designed to provide practice in preparing and using visual and audio aids and materials. Emphasis is placed on the preparation and use of different categories of instructional aids. Upon completion, the student should be able to prepare and effectively present different types of aids for use with a four-step lesson plan.

COSMETOLOGY (COS)

COS 111 INTRODUCTION TO COSMETOLOGY (3T) 3 credits
COREQUISITE: COS 112 or Permission of instructor

This course is designed to provide students with an overview of the history and development of cosmetology and standards of professional behavior. Students receive basic information regarding principles and practices of infection control, diseases, and disorders. Additionally, students receive introductory information regarding hair design. The information presented in this course is enhanced by hands-on application performed in a controlled lab environment. Upon completion, students should

be able to apply safety rules and regulations and write procedures for skills identified in this course.

COS 112 INTRODUCTION TO COSMETOLOGY LAB (9M) 3 credits
COREQUISITE: COS 111 or Permission of instructor

In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, and hair-styling. Emphasis is placed on disinfection, shampooing, hair shaping, and hairstyling for various types of hair for men and women. This course offers opportunities for students to put into practice concepts learned in the theory component from COS 111.

COS 113 THEORY OF CHEMICAL SERVICES (1T, 2E, 3M) 3 credits
COREQUISITE: COS 114 or COS 115, or Permission of instructor

During this course students learn concepts of theory of chemical services related to chemical hair texturing. Specific topics include basics of chemistry and electricity, properties of the hair and scalp, and chemical texture services. Safety considerations are emphasized throughout this course. This course is foundational for other courses providing more detailed instruction on these topics.

COS 114 CHEMICAL SERVICES LAB (9M) 3 credits
COREQUISITE: COS 113 or Permission of instructor

During this course students perform various chemical texturing activities. Emphasis is placed on cosmetologist and client safety, chemical use and handling, hair and scalp analysis, and client consulting.

COS 115 HAIR COLORING THEORY (3T) 3 credits
COREQUISITE: COS 116

In this course, students learn the techniques of hair coloring and hair lightening. Emphasis is placed on color application, laws, levels and classifications of color and problem solving. Upon completion, the student will be able to identify all classifications of haircoloring and the effects on the hair.

COS 116 HAIR COLORING LAB (9M) 3 credits
COREQUISITE: COS 115

In this course, students apply hair coloring and hair lightening techniques. Topics include consultation, hair analysis, skin test and procedures and applications of all classifications of hair coloring and lightening. Upon completion, the student will be able to perform procedures for hair coloring and hair lightening.

COS 117 BASIC SPA TECHNIQUES (3T) 3 credits
COREQUISITE: COS 118

This course is the study of cosmetic products, massage, skin care, and hair removal, as well as identifying the structure and function of various systems of the body. Topics include massage skin analysis, skin structure, disease and disorder, light therapy, facials, facial cosmetics, anatomy, hair removal, and nail care. Upon completion, the student will be able to state procedures for analysis, light therapy, facials, hair removal, and identify the structures, functions, disorders of the skin, and nail care.

COS 118 BASIC SPA TECHNIQUES LAB (9M)

3 credits

COREQUISITE: COS 117

This course provides practical applications related to the care of the skin and related structure. Emphasis is placed on facial treatments, product application, skin analysis, massage techniques, facial make-up, hair removal, and nail care. Upon completion, the student should be able to prepare clients, assemble sanitized materials, follow procedures for product application, recognize skin disorders, demonstrate facial massage movement, cosmetic application, and hair removal using safety and sanitary precautions, and nail care.

COS 119 BUSINESS OF COSMETOLOGY (3)

3 credits

This course is designed to develop job-seeking and entry-level management skills for the beauty industry. Topics include job seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon.

COS 123 COSMETOLOGY SALON PRACTICES (9M)

3 credits

This course is designed to allow students to practice all phases of cosmetology in a salon setting. Emphasis is placed on professionalism, receptionist duties, hairstyling, hair shaping, chemical, and nail and skin services for clients. Upon completion, the student should be able to demonstrate professionalism and the procedures of cosmetology in a salon setting.

COS 125 CAREER AND PERSONAL DEVELOPMENT (3T)

3 credits

This course provides the study and practice of personal development and career building. Emphasis is placed on building and retaining clientele, communication skills, customer service, continuing education, and goal setting. Upon completion, the student should be able to communicate effectively and practice methods for building and retaining clientele.

COS 133 SALON MANAGEMENT TECHNOLOGY (1T, 6M)

3 credits

This course is designed to develop entry-level management skills for the beauty industry. Topics include job-seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon.

COS 134 ADVANCED ESTHETICS (1T, 6M)

3 credits

This course includes an advanced study of anatomy and physiology relating to skin care, cosmetic chemistry, histology of the skin, and massage and facial treatments. Upon completion, the student should be able to discuss the functions of the skin, effects of chemicals on skin, different types of massage and benefits, and key elements of the basic facial treatment.

COS 135 ADVANCED ESTHETICS APPLICATIONS (9M)

3 credits

This course provides advanced practical applications related to skin care. Principal topics include massage techniques, various facial treatments, proper product applica-

tion through skin analysis, and introduction to ingredients and treatments used by the esthetician. Upon completion, the student should be able to perform various massage techniques, prescribe proper type of facial treatment and product, and demonstrate facials using any of the eight functions of the facial machine.

COS 141 APPLIED CHEMISTRY FOR COSMETOLOGY (9M)

3 credits

This course focuses on chemistry relevant to professional hair and skin care products, hair and its related structures, permanent waving, chemical hair relaxing, and hair coloring. Topics include knowledge of basic chemistry, pH scale measurements, water, shampooing and cosmetic chemistry, physical and chemical changes in hair structure. Upon completion, the student should be able to define chemistry, types of matter, and describe chemical and cosmetic reactions as related to the hair and skin structure.

COS 142 APPLIED CHEMISTRY FOR COSMETOLOGY LAB (9M)

3 credits

This course provides practical applications of the knowledge and skin learned in reference to chemical reactions, as well as the chemical application to the hair and skin. Emphasis is placed on knowledge of basic chemistry, pH scale, cosmetic chemistry, and physical and chemical changes in the hair and skin structure. Upon completion, the student should be able to determine the proper chemical product for each prescribed service.

COS 143 SPECIALTY HAIR PREPARATION TECHNIQUES (1T, 6M)

3 credits

This course focuses on the theory and practice of hair designing. Topics include creating styles using basic and advanced techniques of back combing, up sweeps and braiding. Upon completion, the student should be able to demonstrate the techniques and procedures for hair designing.

COS 144 HAIR SHAPING AND DESIGN (1T, 6M)

3 credits

In this course, students learn the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs.

COS 145 HAIR SHAPING LAB (9M)

3 credits

This covers the study of the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs using safety and sanitary precautions.

COS 146 HAIR ADDITIONS (2T, 2E, 3M)

4 credits

This course focuses on the practice of adding artificial hair. Topics include hair extensions, weaving, and braiding. Upon completion, the student should be able to demonstrate the techniques and procedures for attaching human hair and synthetic hair.

COS 150 MANICURING (1T, 6M)

3 credits

This course focuses on the theory and practice of nail care.

Course Descriptions

Topics include sanitation, nail structure, nail disorders and diseases, manicuring, pedicuring, nail wrapping, sculptured nails and acrylic overlays.

COS 151 NAIL CARE (3T) 3 credits
COREQUISITE: COS 152 or Permission of instructor

This course focuses on all aspects of nail care. Topics include salon conduct, professional ethics, sanitation, nail structure, manicuring, pedicuring, nail disorders, and anatomy and physiology of the arm and hand. Upon completion, the student should be able to demonstrate professional conduct, recognize nail disorders and diseases, and identify the procedures for sanitation and nail care services.

COS 152 NAIL CARE APPLICATIONS (9M) 3 credits
COREQUISITE: COS 151 or Permission of instructor

This course provides practice in all aspects of nail care. Topics include salon conduct, professional ethics, bacteriology, sanitation and safety, manicuring and pedicuring. Upon completion, the student should be able to perform nail care procedures.

COS 153 NAIL ART (3T) 3 credits
COREQUISITE: COS 154 or Permission of instructor

This course focuses on advanced nail techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to identify the different types of sculptured nails and recognize the different techniques of nail art.

COS 154 NAIL ART APPLICATIONS (9M) 3 credits
COREQUISITE: COS 153 or Permission of instructor

This course provides practice in advanced nail techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to perform the procedures for nail sculpturing and nail art.

COS 158 EMPLOYABILITY SKILLS (3T) 3 credits

This course provides the study of marketable skills to prepare the student to enter the world of work. Emphasis is placed on resumes, interviews, client and business relations, personality, computer literacy and attitude. Upon completion, the student should be prepared to obtain employment in the field for which they have been trained.

The following labs are designed for students in need of additional lab hours or services in preparation for licensure exams. The labs will be directed by instructors according to the student's area of specialty and may be taken during the course of the program as needed.

COS 161 SPECIAL TOPICS IN COSMETOLOGY (1T) 1 credit
PREREQUISITE: Permission of instructor

This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 162 SPECIAL TOPICS IN COSMETOLOGY (9M) 3 credits
PREREQUISITE: Permission of instructor

This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

tion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 163 FACIAL TREATMENTS (1T, 6M) 3 credits

This course includes all phases of facial treatments in the study of skin care. Topics include treatments for oily, dry, and special skin applications. Upon completion, students will be able to apply facial treatments.

COS 164 FACIAL MACHINE (9M) 3 credits

This is a course designed to provide practical experience using the vapor and facial machine with hydraulic chair. Topics include the uses of electricity and safety practices, machine and apparatus, use of the magnifying lamp, and light therapy. Upon completion, the student will be able to demonstrate an understanding of electrical safety and skills in the use of facial machines.

COS 165 RELATED SUBJECTS ESTHETICIANS (9M) 3 credits

This course includes subjects related to the methods for removing unwanted hair. This course includes such topics as electrolysis information and definitions, safety methods of permanent hair removal, the practice of removal of superfluous hair, and the use of depilatories. Upon completion of this course, students will be able to apply depilatories and practice all safety precautions.

COS 167 STATE BOARD REVIEW (1T, 6M) 3 credits

Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to complete successfully the required State Board of Cosmetology examination and entry-level employment.

COS 169 SKIN FUNCTIONS (9M) 3 credits

This course introduces skin functions and disorders. Topics include practical application for skin disorder treatments, dermabrasion, and skin refining. Upon completion of this course, the student will be able to demonstrate procedures for acne, facials and masks for deeper layers and wrinkles.

COS 168 BACTERIOLOGY AND SANITATION (3T) 3 credits

In this skin care course, emphasis is placed on the decontamination, infection control and safety practiced in the esthetics facility. Topics covered include demonstration of sanitation, sterilization methods and bacterial prevention. Upon completion, the student will be able to properly sanitize facial implements and identify non-reusable items.

COS 181 SPECIAL TOPICS (3T) 3 credits

This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 182 SPECIAL TOPICS (9M) 3 credits

This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 190 INTERNSHIP IN COSMETOLOGY (9M) 3 credits
PREREQUISITE: Permission of instructor

This course is designed to provide exposure to cosmetology practices in non-employment situations. Emphasis is on dependability, attitude, professional judgment, and practical cosmetology skills. Upon completion, the student should have gained skills necessary for entry-level employment.

COS 191 CO-OP (9M) 3 credits
PREREQUISITE: Permission of instructor

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COS 291 CO-OP (9M) 3 credits

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

CRIMINAL JUSTICE (CRJ)

CRJ 100 INTRODUCTION TO CRIMINAL JUSTICE (3T) 3 credits

This course surveys the entire criminal justice process from law enforcement to the administration of justice through corrections. It discusses the history and philosophy of the system and introduces various career opportunities.

CRJ 110 INTRODUCTION TO LAW ENFORCEMENT (3T) 3 credits

This course examines the history and philosophy of law enforcement, as well as the organization and jurisdiction of local, state, and federal agencies. It includes the duties and functions of law enforcement officers.

CRJ 130 INTRODUCTION TO LAW AND JUDICIAL PROCESS (3T) 3 credits

This course provides an introduction to the basic elements of substantive and procedural law and the stages in the judicial process. It includes an overview of state and federal court structure.

CRJ 140 CRIMINAL LAW AND PROCEDURE (3T) 3 credits

This course examines both substantive and procedural law. The legal elements of various crimes are discussed, with emphasis placed on the contents of the Alabama Code. Areas of criminal procedure essential to the criminal justice profession are covered.

CRJ 146 CRIMINAL EVIDENCE (3T) 3 credits

This course considers the origins of the law of evidence and current rules of evidence. Types of evidence, their definitions and uses are covered, as well as the functions of the court regarding evidence.

CRJ 150 INTRODUCTION TO CORRECTIONS (3T) 3 credits

This course provides an introduction to the philosophical and historical foundations of corrections in America. Incarceration and some of its alternatives are considered.

CRJ 157 COMMUNITY BASED CORRECTIONS (3T) 3 credits

This course examines various forms of community corrections and alternative sentences. Probation, parole, halfway houses, work release, community service, electronic monitoring and camps are among the programs considered.

CRJ 160 INTRODUCTION TO SECURITY (3T) 3 credits

This course surveys the operation, organization and problems in providing safety and security to business enterprises. Private, retail and industrial security are covered.

CRJ 166 PRIVATE AND RETAIL SECURITY (3T) 3 credits

This course surveys the legal foundations, regulations, training, and other issues in private security. Typical offenses, laws, and law enforcement strategies common in the field are covered. Methods of loss prevention are examined.

CRJ 168 INTERNATIONAL SECURITY (3T) 3 credits

This course provides an understanding of the security implications of international programs, commercial sales, the interrelationship of the information disclosure and technology transfer, the International Traffic in Arms Regulations, and the Export Administration Regulations.

CRJ 169 SECURITY MANAGEMENT (3T) 3 credits

This course introduces the student to sound security management theories, principles, budgeting, communications, and education.

CRJ 170 INTRODUCTION TO PHYSICAL SECURITY (3T) 3 credits

This course provides an overview of the protection of people, property, and facilities through the use of security forces, systems, and procedures.

CRJ 171 SECURITY RISK MANAGEMENT (3T) 3 credits

This course deals with the identification of assets, threats, and vulnerabilities, and the development of countermeasures.

CRJ 208 INTRODUCTION TO CRIMINOLOGY (3T) 3 credits

This course delves into the nature and extent of crime in the United States as well as criminal delinquent behavior and theories of causation. The study includes criminal personalities, principles of prevention, control and treatment.

CRJ 209 JUVENILE DELINQUENCY (3T) 3 credits

This course examines the causes of delinquency. It also

Course Descriptions

reviews programs of prevention and control of juvenile delinquency as well as the role of the courts.

CRJ 216 POLICE ORGANIZATION AND ADMINISTRATION (3T)

3 credits

This course examines the principles of organization and administration of law enforcement agencies. Theories of management, budgeting, and various personnel issues are covered.

CRJ 220 CRIMINAL INVESTIGATION (3T)

3 credits

This course explores the theory and scope of criminal investigation. The duties and responsibilities of the investigator are included. The techniques and strategies used in investigation are emphasized.

CRJ 230 CRIMINALISTICS (3T)

3 credits

This course surveys the different techniques of scientific investigation. Emphasis is given to ballistics, photography, fingerprints, DNA, trace evidence, body fluids, casts and the like.

CRJ 256 CORRECTIONAL REHABILITATION (3T)

3 credits

This course surveys the different methods used in the rehabilitation of public offenders. Topics include individual and group counseling, education, recreation, religion, drug treatment, and vocational programs.

CRJ 280 INTERNSHIP IN CRIMINAL JUSTICE (1-3T)

1-3 credits

PREREQUISITE: Permission of instructor

This course involves practical experience with a criminal justice agency under faculty supervision. Permission of the instructor is required. This course may be repeated with the approval of the department head.

CRJ 290 SELECTED TOPICS - SEMINAR IN CRIMINAL JUSTICE (1-3T)

1-3 credits

This course involves reading, research, writing, and discussion of selected subjects relating to criminal justice. Various contemporary problems in criminal justice are analyzed. This course may be repeated with approval of the department head.

DENTAL ASSISTING (DNT)

DNT 100 INTRODUCTION TO DENTAL ASSISTING (2T)

2 credits

PREREQUISITE: Admission to the Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 101, DNT 102, DNT 103, DNT 104, PSY 200

This course is designed to provide an introduction to dentistry and the history of dentistry, dental equipment, dental auxiliaries, psychology application to dentistry, personal and certification requirements, legal and ethical considerations, and work ethics and communication skills. Emphasis is placed on the Alabama Dental Practice Act and OSHA Standards. Upon completion, students should be able to discuss basic aspects of dentistry.

DNT 101 PRE-CLINICAL PROCEDURES I (2T, 3S)

3 credits

PREREQUISITE: Admission to the Dental Assisting Program and Permission of instructor

COREQUISITES: DNT 100, DNT 102, DNT 103, DNT 104, PSY 200

This course is designed to introduce chairside assisting including concepts of four-handed dentistry, sterilization techniques, dental instruments, anesthesia, and operative dentistry. Emphasis will be placed on preparation of the student for clinical dental assisting. Upon completion, the student should be able to perform dental assisting skills in a clinical setting.

DNT 102 DENTAL MATERIALS (2T, 3S)

3 credits

PREREQUISITE: Admission to the Dental Assisting Program and Permission of instructor

COREQUISITES: DNT 100, DNT 101, DNT 103, DNT 104, PSY 200

This course is designed to study the characteristics, manipulation, and application of dental materials ordinarily used in the dental office. Students will be given intra and extra-oral technical tasks to perform. Upon completion, students should be able to take and pour alginate impressions, trim study models, construct custom trays and temporary crowns, prepare and place restorative material, and manipulate cements and impression materials.

DNT 103 ANATOMY AND PHYSIOLOGY FOR DENTAL ASSISTING (3T)

3 credits

PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 100, DNT 101, DNT 102, DNT 104, PSY 200

This course is designed to study dental anatomy and the structure of the head and neck with a basic understanding of body structure and function. Emphasis will be placed on tooth and root morphology, and embryological and histological correlations will provide a foundation essential to an understanding of dental health. Upon completion, students should be able to discuss and identify the basic structure and function of the human body specifically the head, neck, and dentition.

DNT 104 BASIC SCIENCES FOR DENTAL ASSISTING (2T)

2 credits

PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 100, DNT 101, DNT 102, DNT 103, PSY 200

This course is designed to study basic microbiology, pathology, pharmacology, and medical emergencies. Emphasis is placed on the correlation of these sciences to the practice of dentistry. Upon completion, students should be able to apply basic science to the dental field.

DNT 111 CLINICAL PRACTICE I (1T, 12C)

5 credits

PREREQUISITE: Admission to Dental Assisting Program or Permission of instructor

COREQUISITE: DNT 112, DNT 113, DNT 116, DNT 124, MTH 100 or 112 or 116, SPH 107

This course is designed to allow the student the opportunity for clinical observation and practical work experience in clinical settings under the supervision of a licensed dentist. Emphasis will be placed on the basic skills of chairside

assisting. Upon completion, students should be able to demonstrate basic skills in the area of chairside assisting.

team work, and communication skills. Emphasis will be placed on clinical procedures. Upon completion, students should be able to demonstrate proficiency in the area of chairside assisting.

DNT 112 DENTAL RADIOLOGY (2T, 3S) 3 credits
PREREQUISITE: Admission to Dental Assisting Program or Permission of instructor

COREQUISITE: DNT 111, DNT 113, DNT 116, DNT 124, MTH 100 or 112 or 116, SPH 107

This course is designed to cover the essential knowledge of radiographic technique for the practice of dentistry. Students will be taught to produce diagnostically acceptable intra and extra-oral radiographs with emphasis being placed on x-ray properties, generation of x-rays, film processing, infection control, quality assurance, intraoral radiographic technique and image characteristics. Upon completion, students should be able to expose, process, and mount radiographs for diagnostic purposes under the direct supervision of a licensed dentist.

DNT 113 DENTAL HEALTH EDUCATION (2T) 2 credits
PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 111, DNT 112, DNT 116, DNT 124, MTH 100 or MTH 112 or MTH 116, SPH 107

This course is designed to introduce the student to the basic principles of nutrition, preventive dentistry, and dental health education. Emphasis will be placed on philosophy of preventive dentistry including: oral hygiene, patient motivation and management, and methods of oral health education. Upon completion, students should be able to apply the basic principles of nutrition and preventive dentistry.

DNT 116 PRECLINICAL PROCEDURES II (2T) 2 credits
PREREQUISITE: DNT 101 Pre-Clinical Procedures I and Permission of the instructor

COREQUISITE: DNT 111, DNT 112, DNT 113, DNT 124, SPH 107 and MTH 100 or MTH 112 or MTH 116

This course is a continuation of Pre-Clinical Procedures I. Emphasis is placed on dental specialties. Upon completion, the student should be able to discuss and identify dental specialty procedures and instrumentation.

DNT 121 DENTAL OFFICE PROCEDURES (4T) 4 credits
PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 122, DNT 123, ENG 101
This course is designed to address basic dental office procedures including appointment and recall systems, financial records, accounting procedures, insurance claims, filing systems, purchasing and inventory of supplies and equipment, and the utilization of computers to perform business office procedures. Emphasis is placed on the duties of a dental receptionist. Upon completion, students should be able to demonstrate efficiently in practice management.

DNT 122 CLINICAL PRACTICE II (12C) 4 credits
PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 121, DNT 123, ENG 101
This course is designed to provide the student the opportunity to develop advanced dental assisting skills in chairside dental assisting procedures, radiology, receptionist duties,

DNT 123 DENTAL ASSISTING SEMINAR (4T) 4 credits
PREREQUISITE: Admission to Dental Assisting Program and Permission of instructor

COREQUISITE: DNT 121 and DNT 122, ENG 101

This course is designed to discuss and evaluate the students' clinical experiences and the resume and interview process. Emphasis will be placed on new technology in dental practices as related to dental assisting and the certification exam review. Upon completion, students should be able to successfully complete the Dental Assisting National Board Examination to become a Certified Dental Assistant.

DNT 124 CLINICALLY APPLIED INFECTION CONTROL AND OSHA STANDARDS (3C) 1 credit

PREREQUISITE: DNT 100 or Permission of instructor

COREQUISITE: DNT 111, DNT 112, DNT 113, DNT 116, SPH 107, MTH 100 or 112 or 116

This course is designed for the integration of previously acquired knowledge of OSHA Standards and Infection Control in a clinical setting. Emphasis will be placed on clinical application of Infection Control and Compliance of OSHA Standards as it relates to dental chairside assisting. Upon completion, students should be able to demonstrate skills in the area of Infection Control and OSHA Guidelines.

DESIGN DRAFTING TECHNOLOGY (DDT)

DDT 104 BASIC COMPUTER AIDED DRAFTING (1T,4E) 3 credits

This course provides an introduction to basic Computer Aided Drafting and Design (CADD) functions and techniques, using "hands-on" applications. Topics include terminology, hardware, basic CADD and operating system functions, file manipulation, and basic CADD software applications in producing softcopy and hardcopy.

DDT 111 FUNDAMENTALS OF DRAFTING AND DESIGN TECHNOLOGY (1T, 4E) 3 credits
COREQUISITE: DDT 104

This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric constructions, orthographic sketching, and drawing.

DDT 122 ADVANCED TECHNICAL DRAWING (1T, 4E) 3 credits
PREREQUISITE: DDT 111 AND DDT 127

This course covers the methods of providing size description and manufacturing information for production drawings. Emphasis will be placed on accepted dimensioning and tolerancing practices including Geometric Dimensioning and Tolerancing for both the Customary English System and the ISO System. Upon completion, students should be able to apply dimensions, tolerances, and notes to drawings to acceptable standards, including

Course Descriptions

Geometric Dimensioning and Tolerancing, and produce drawings using and specifying common threads and various fasteners, including welding methods.

DDT 124 BASIC TECHNICAL DRAWING (1T,4E) 3 credits
PREREQUISITE: DDT 104, DDT 111

This course covers sections, auxiliary views, and basic space geometry. Emphasis will be placed on the theory as well as the mechanics of applying sections, basic dimensioning, auxiliary views, and basic space geometry.

DDT 127 INTERMEDIATE COMPUTER AIDED DRAFTING AND DESIGN (1T, 4E) 3 credits
PREREQUISITE: DDT 104

This course covers intermediate-level concepts and applications of CADD. Emphasis will be placed on intermediate-level features, commands, and applications of CADD software.

DDT 128 INTERMEDIATE TECHNICAL DRAWING (1T,4E) 3 credits
PREREQUISITE: DDT 127

This course is designed to develop a strong foundation in common drafting and design practices and procedures. Topics include dimensioning concepts and pictorial drawings.

DDT 131 BASIC MACHINE DRAFTING (1T, 4E) 3 credits
PREREQUISITE: DDT 127, DDT 111, DDT 122

This course in machine drafting and design provides instruction in the largest specialty area of drafting in the United States in terms of scope and job opportunities. Emphasis will be placed on the applications of multi-view drawings, including drawing organization and content, title blocks and parts lists, assembly drawings, detail drawings, dimensioning and application of engineering controls in producing industrial-type working drawings. Upon completion, students should be able to organize, layout, and produce industrial-type working drawings, including the application of title blocks, parts lists, assemblies, details, dimensions, and engineering controls.

DDT 132 ARCHITECTURAL DRAFTING (1T, 4E) 3 credits
PREREQUISITES: DDT 127

This course in architectural design and drafting introduces basic terminology, concepts and principles of architectural design and drawing. Topics include design considerations, lettering, terminology; site plans, and construction drawings. Upon completion, students should be able to draw, dimension, and specify basic residential architectural construction drawings.

DDT 150 THEORY OF RESIDENTIAL DRAWING AND DESIGN (3T) 3 credits

This course provides the theory of residential drawing and design. Topics include architectural styles, house design, site and space planning, climate, drawing requirements, construction materials and process, terminology, and specific types of drawings required to complete a full set of construction documents. Introductory, intermediate, and advanced topics are covered. Emphasis is placed on an understanding of the various requirements essential to the field of residential drawing and design.

DDT 155 DRAWING FOR RESIDENTIAL CONSTRUCTION (8E) 4 credits

PREREQUISITE: DDT 127, DDT 150

This course is a direct applications lab to the topics covered within DDT 150. Emphasis is placed upon the production of quality construction documents.

DDT 213 CIVIL DRAFTING, PLAT MAPS (1T, 4E) 3 credits
PREREQUISITE: DDT 127

This course introduces the drafting practices, symbols, conventions, and standards utilized in civil engineering contract documents. Topics include site planning, land surveying, topographic surveys, along with civil terminology. Upon completion, students should be able to draw accurate plat maps giving legal descriptions of land parcels, draw simple site plans, and identify and use proper symbols and conventions on civil engineering drawings.

DDT 225 STRUCTURAL STEEL DRAFTING (1T, 4E) 3 credits
PREREQUISITE: DDT 127

This course covers the theory and practical applications necessary to understand the basic design and terminology of structural steel components used in light commercial buildings. Emphasis is placed on structural steel drafting techniques, bolted and welded connections, framing plans, sections, fabrication and connection details, and bills of material. Upon completion, students should be able to produce engineering and shop drawings incorporating standard shapes, sizes, and details using the A.I.S.C. Manual and incorporating safety practices.

DDT 233 SOLIDS MODELING (2T, 2E) 3 credits
PREREQUISITE: DDT 104

This course provides instruction in 3D capabilities of CAD software. Emphasis is placed on 3D wire-frame, surface and solids modeling along with the development of 2D detail drawings from 3D models. Upon completion, students should be able to generate 3D surface and solid models and 2D orthographic production drawings from created solid models.

ECONOMICS (ECO)

ECO 130 CONSUMER ELECTRONICS (3T) 3 credits

This course explores the application of general economic principles and practices concerning personal consuming, saving, and investing. It also stresses the relationship of sound personal financial management with successful career goals. Topics covered will include: consumerism, income and family financial planning, insurance, and investments.

ECO 231 PRINCIPLES OF MACROECONOMICS (3T) 3 credits

This course is an introduction to macroeconomic theory, analysis, and policy applications. Topics include the following: scarcity, demand and supply, national income analysis, major economic theories concerning monetary and fiscal policies as stabilization measures, the banking system, and other economic issues or problems including international trade.

ECO 232 PRINCIPLES OF MICROECONOMICS

(3T)

3 credits

PREREQUISITE: ECO 231

This course is an introduction of the microeconomic theory, analysis, and applications. Topics include scarcity, the theories of consumer behavior, production and cost, markets, output and resource pricing, and international aspects of microeconomics.

EDUCATION

EDU 100 EXPLORING TEACHING AS A PROFESSION (1T, 2E)

2 credits

This course provides students with an opportunity to explore teaching as a career. The role of the teacher, the benefits of teaching, and the steps to becoming a teacher are some of the topics that will be explored. Students will be exposed to examples of good teaching and self-assess their personal and professional qualities.

ENGINEERING (EGR)

EGR 100 ENGINEERING ORIENTATION

(1T)

1 credit

This course is designed to make beginning engineering students aware of the many facets of engineering, of their relation to society, and of the objectives of the engineering curriculum. It is designed to stimulate interest in engineering and student-instructor dialogue.

EGR 101 ENGINEERING FOUNDATIONS

(2T, 2E)

3 credits

CO-REQUISITE: MTH 113 or MTH 115

This course introduces students to engineering as a profession, basic engineering skills, and the design process. The course includes components to develop teaming and oral and written communication skills. The course also provides an introduction to computer tools used by engineers (e.g., spreadsheet, word processing, presentation software, Internet).

EGR 125 MODERN GRAPHICS FOR ENGINEERS

(1T, 4E)

3 credits

This course provides an introduction to manual and computer-assisted techniques of graphic communication employed by professional engineers. Topics include: lettering; instrumental and computer-aided drafting; technical sketching; orthographic projection; pictorial, sectional, and auxiliary views; and dimensioning.

EGR 156 COMPUTER METHODS FOR ENGINEERS

(3T)

3 credits

PREREQUISITE: MTH 125

This course consists of engineering applications using the FORTRAN IV computer programming language.

EGR 157 COMPUTER METHODS FOR ENGINEERS USING MATLAB (2T, 2E)

3 credits

PREREQUISITE: MTH 125

This course introduces students to the concepts and prac-

tices involved in using high-level computer environments to solve engineering problems. Programming environments such as MATLAB will be used.

EGR 220 ENGINEERING MECHANICS-STATICS

(3T)

3 credits

COREQUISITE: MTH 227

PREREQUISITE: PHY 213

This course includes vector algebra, force and moment systems, equilibrium of force systems, trusses, friction and property of surfaces.

EGR 236 ENGINEERING MECHANICS-DYNAMICS

(3T)

3 credits

PREREQUISITE: EGR 220

This course includes kinematics of particles, plane kinematics of rigid bodies, kinetics of particles and rigid bodies by Newton's Laws; principles of work-energy and impulse-momentum.

EGR 258 ELECTRIC CIRCUITS

(3T)

3 credits

PREREQUISITE: MTH 227 and PHY 214

This course is an introduction to electrical circuit theory, voltage-current relationships in linear circuit elements. Kirchoff's laws, with applications to simple networks, and loop and node equations. Complex power, power factor correction, and network analysis techniques.

EGR 260 MECHANICS OF MATERIALS (3T)

3 credits

PREREQUISITE: EGR 220

This course includes the study of the variation of stress and strain at a point; Mohr's circle, strain gage rosettes; stresses and strains resulting from axial and torsional loads, shear and moment in beams; beam stresses; beam deflection; combined stresses.

EGR 276 THERMODYNAMICS (3T)

3 credits

PREREQUISITE: MTH 126, PHY 214, EGR 156

This course includes the study of the basic laws of thermodynamics; unsteady and steady states; properties of matter; processes of fluids; first and second laws; availability of energy; irreversibility.

ELECTRICAL TECHNOLOGY (ELT)

ELT 104 DISTRIBUTION SYSTEMS

FORMERLY: ELT 217

(2T, 2E)

3 credits

PREREQUISITE: ELT 108 and ELT 109

This course involves the theory, applications, calculations, and connections associated with transformers and power distribution systems commonly used in the electrical field.

ELT 108 DC FUNDAMENTALS (1T, 4E)

PREREQUISITE: MTH 092 OR MTH 098

COREQUISITE: ELT 109

3 credits

This course provides a study of atomic theory, direct current (DC), properties of conductors and insulators, direct current characteristics of series, parallel, and series parallel circuits. Inductors and capacitors are introduced and their effects on DC circuits are examined. Students are prepared

Course Descriptions

to analyze complex DC circuits, solve for unknown circuits variables and to use basic electronic test equipment.

ELT 109 AC FUNDAMENTALS (1T, 4E) 3 credits
PREREQUISITE: MTH 092 or MTH 098
COREQUISITE: ELT 108

This course provides a study of the theory of alternating current (AC). Students are prepared to analyze complex AC circuit configurations with resistor, capacitors, and inductors in series and parallel combinations. Upon completion, students should be able to design AC circuits and explain the function of alternating circuits such as RLC, impedance, phase relationships and power factor. This is a CORE course.

ELT 110 WIRING METHODS (1T, 4E) 3 credits

This course is a study of various tasks, wiring methods, materials, and associated NEC (National Electric Code) requirements that students will be required to work with in residential and commercial wiring courses.

ELT 116 RESIDENTIAL WIRING (4T, 4E) 6 credits
PREREQUISITES: ELT 108 AND ELT 109

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations.

ELT 117 AC/DC MACHINES (1T, 4E) 3 credits
PREREQUISITES: ELT 108 AND ELT 109

This course covers the theory and operation of DC motors single and three phase AC motors and the labs will reinforce this knowledge. Emphasis is placed on the various types of single and three phase motors, wiring diagrams, starting devices, and practical application in lab. This is a CORE course.

ELT 118 COMMERCIAL/INDUSTRIAL WIRING I (1T, 4E) 3 credits
PREREQUISITE: ELT 110

This course focuses on principles and applications of commercial and industrial wiring. Topics include electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles.

ELT 209 MOTOR CONTROLS 1 (1T, 4E) 3 credits
PREREQUISITE: ELT 108 AND ELT 109

This course covers the use of motor control symbols, magnetic motor starters, running overload protection, push-button stations, sizing of magnetic motor starters and overload protection, and complex ladder diagrams of motor control circuits. Topics include sizing magnetic starters and overload protection, the use of push-button stations, ladder diagrams, and magnetic motor starters in control of electric motors, wye-delta starting, part start winding, resistor starting and electric starting devices. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using push-button stations and understand complex motor control diagrams.

ELT 212 MOTOR CONTROLS II (1T, 4E) 3 credits
PREREQUISITE: ELT 209

This course covers complex ladder diagrams of motor control circuits and the uses of different motor starting techniques. Topics include wye-delta starting, part start winding, resistor starting and electronic starting devices. Upon completion, the students should be able to understand and interpret the more complex motor control diagrams and understand the different starting techniques of electrical motors.

ELT 221 ELECTRONICS FOR ELECTRICIANS I (2T, 2E) 3 credits
PREREQUISITE: ELT 108 and ELT 109 or Permission of instructor

This course introduces students to the basic principles of solid state electronic equipment as found in many electrical and motor control circuits. Emphasis is placed on fundamental concepts of diodes, transistors, FET's and MOSFETs as they are used in electrical control circuits. Upon completion, students should understand the basic operation of solid state components and be able to perform basic troubleshooting tasks.

ELT 223 CABLE SPLICES & INSTALLATION (2T, 3M) 3 credits
PREREQUISITE: Permission of instructor

This course provides instruction in splicing and installing low and medium voltage power cable, hi -voltage cable, fiber optic cable, communication and voltage wiring systems. Emphasis is placed on sizes conductors and use of proper connectors and materials used in splicing and connecting. Upon completion, students should be able to properly size, splice, connect and insulate all types of cables.

ELT 231 PROGRAMMABLE CONTROLS I (2T, 2E) 3 credits
PREREQUISITE: ELT 108 AND ELT 109

This state-of-the art course includes the fundamental principals of programmable logic controls (PLCs) including hardware and programming. Emphasis is placed on but not limited to the following: hardwiring associated with the PLC, different options available with most PLCs and basic ladder logic programming. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

ELT 232 PROGRAMMABLE CONTROLS II (2T, 2E) 3 credits
PREREQUISITES: ELT 108, ELT 109

This state-of-the-art course includes the principals of PLC's including hardware, programming and program design. Emphasis is placed on, but not limited to the following: developing working programs, timers, counters, different special functions, and designing programs from existing hardwired systems. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

ELT 241 NATIONAL ELECTRIC CODE (3T) 3 credits
PREREQUISITE: ELT 108 and ELT 109 or Permission of instructor

This course introduces students to the National Electric Code. Emphasis is placed on locating and interpreting needed information within the NEC code manual. Upon completion, students should be able to locate code requirements for a specific electrical installation.

**ELT 244 CONDUIT BENDING AND INSTALLATION 3 credits
(2T,2E)**

This course provides students the knowledge to properly bend electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to get measurements, layout, and successfully bend conduit using hand type, mechanical, and hydraulic benders.

EMERGENCY MEDICAL PARAMEDIC (EMP)

**EMP 189 APPLIED ANATOMY AND PHYSIOLOGY
FOR THE PARAMEDIC (4T) 4 credits**

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

This course introduces human anatomy and physiology and includes concepts related to basic chemistry; fluid, electrolyte, and acid-base balance; functions of cells, tissues, organs, and systems; pathophysiology; and associated medical terminology. Emphasis is placed on applying content to signs, symptoms, and treatments; and situations commonly seen by paramedics. Upon course completion, students should be able to demonstrate a basic understanding of the structure and function of the human body.

EMP 191 PARAMEDIC PREPARATORY (2T) 2 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

NOTE: HPS-110, Introduction to Health Care may be substituted for this course.

This course introduces issues related to the practice of pre-hospital advanced life support as a career, with a focus on issues common to all health care professions. Content areas include: paramedic roles and responsibilities, well-being of the paramedic, illness and injury prevention, medical-legal-ethical issues, therapeutic communications, and medical terminology. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 192 PARAMEDIC OPERATIONS (2T, 2E) 3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course focuses on the operational knowledge and skills needed for safe and effective patient care within the paramedic's scope of practice. Content areas include: pathophysiology, life span development, ambulance operations, medical incident command, rescue awareness and

operations, hazardous materials incidents, crime scene awareness, and Alabama EMS laws and rules. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

**EMP 193 PATIENT ASSESSMENT AND MANAGEMENT
(2T, 2E) 3 credits**

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course provides the knowledge and skills needed to perform a comprehensive patient assessment, make initial management decisions, and to communicate assessment findings and patient care verbally and in writing. Content areas include: airway management, history taking, techniques of the physical examination, patient assessment, clinical decision making, communications, documentation, and assessment based management. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

**EMP 194 PARAMEDIC GENERAL PHARMACOLOGY
(1T, 2E) 2 credits**

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

NOTE: HPS-104, General Pharmacology for the Health Sciences may be substituted for this course.

This course introduces basic pharmacological agents and concepts, with an emphasis on drug classifications and the knowledge and skills required for safe, effective medication administration. Content areas include: general principles of pharmacology and pharmacologic pathophysiology; venous and intraosseous access techniques, the metric and apothecary system; computation of dosage and solution problems, administration of pharmacologic agents; and nasogastric tube placement. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

**EMP 195 ADVANCED TRAUMA
MANAGEMENT A (2T, 2E, 9P3) 6 credits**

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies.

NOTE: The combination of EMP-196, Advanced Trauma Management-B, and EMP-197, Clinical Competencies-I will substitute for this course.

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for trauma patients. Content areas include the pathophysiology, assessment, and management of trauma as related to: trauma systems; mechanisms of injury; hemorrhage and shock; soft tissue injuries; burns;

Course Descriptions

and head, facial, spinal, thoracic, abdominal, and musculoskeletal trauma. Theory and skills are applied to a variety of patient situations in the clinical setting, with a focus on patient assessment, trauma management, advanced airway management, I.V./I.O. initiation and medication administration. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 196 ADVANCED TRAUMA MANAGEMENT B (2T, 2E) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for trauma patients. Content areas include the pathophysiology, assessment, and management of trauma as related to: trauma systems; mechanisms of injury; hemorrhage and shock; soft tissue injuries; burns; and head, facial, spinal, thoracic, abdominal, and musculoskeletal trauma. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 197 PARAMEDIC CLINICAL COMPETENCIES I (9P3) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies, EMS 113, and CPR verification.

This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of patient situations in the clinical setting, with a focus on patient assessment, trauma management, advanced airway management, I.V./I.O. initiation and medication administration. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 198 MEDICAL PATIENT MANAGEMENT I (2T, 2E) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation treatment plans for specific medical conditions. Content areas include: pulmonology, neurology, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, infectious and communicable diseases, abuse and assault, patients with special challenges, and acute interventions for the chronic care patient. Upon course completion, students will have demonstrated com-

petency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 199 CARDIOVASCULAR ELECTROPHYSIOLOGY (2T, 2E) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

This course introduces the cardiovascular system, cardiovascular electrophysiology, and electrocardiographic monitoring. Content areas include: cardiovascular anatomy and physiology, cardiovascular electrophysiology, electrocardiographic monitoring, rhythm analysis, and prehospital 12-lead electrocardiogram monitoring and interpretation. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 200 MEDICAL PATIENT MANAGEMENT IIA (2T, 2E, 9P3) 6 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies.
NOTE: The combination of EMP-201, Medical Patient Management-IIB, and EMP-202, Clinical Competencies-II will substitute for this course.

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific medical conditions. Content areas include: endocrinology, allergies and anaphylaxis, behavioral/psychiatric conditions, gynecology, obstetrics, neonatology, pediatrics, and geriatrics. In the clinical setting, theory and skills are applied to a variety of medical situations across the life span of the patient, with a focus on communication with and management of cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 201 MEDICAL PATIENT MANAGEMENT IIB (2T, 2E) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific medical conditions. Content areas include: endocrinology, allergies and anaphylaxis, behavioral/psychiatric conditions, gynecology, obstetrics, neonatology, pediatrics, and geriatrics. Students integrate and reinforce the didactic and skills laboratory components of their education by performing basic

and advanced life support assessments and skills on a variety of patient presentations and complaints in the clinical setting. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 202 PARAMEDIC CLINICAL COMPETENCIES II

(9P3)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies, EMS 113, and CPR verification.

This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of medical situations across the life span of the patient, with a focus on communication with and management of cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 203 CARDIOVASCULAR PATIENT MANAGEMENT

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, EMP-199 and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific cardiovascular conditions. Content areas include: assessment of the cardiovascular patient, pathophysiology of cardiovascular disease and techniques of management including appropriate pharmacologic agents and electrical therapy. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 204 TRANSITION TO PARAMEDIC PRACTICE

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course is designed to meet additional state and local educational requirements for paramedic practice. Content may include: prehospital protocols, transfer medications, topics in critical care and transport, systems presentation, and/or national standard certification courses as dictated by local needs or state requirement. Upon course completion, students should have met all ancillary educational requirements set forth by the Alabama Department of Public Health and local employers.

EMP 205 PARAMEDIC TERMINAL COMPETENCIES

(1T, 2E)

2 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s) and Permission of instructor.

This course is designed to review the National Standard Curriculum for the EMT-Paramedic and to assist students in preparation for the paramedic licensure examination. Emphasis is placed on validation of knowledge and skills through didactic review, skills lab performance, computer simulation and practice testing. Upon course completion, students should be sufficiently prepared to sit for the paramedic licensure examination.

EMP 206 PARAMEDIC FIELD PRECEPTORSHIP

(1T, 15P3)

6 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s), approved for clinical studies, Permission of instructor, EMS 113, and CPR verification.

This course provides field experiences in the prehospital setting with advanced life support EMS units. Under the direct supervision of a field preceptor, students synthesize cognitive knowledge and skills developed in the skills laboratory and hospital clinical to provide safe and effective patient care in the prehospital environment. Upon course completion, students should have refined and validated their patient care practices to provide safe and effective patient care over a broad spectrum of patient situations and complaints.

EMP 207 PARAMEDIC TEAM LEADER PRECEPTORSHIP

(3P3)

1 credit

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s), approved for clinical studies, Permission of instructor, EMS 113, and CPR verification.

This course is designed to evaluate students' ability to integrate didactic, psychomotor skills, clinical, and field internship instruction to serve as a competent entry-level paramedic. This final evaluative (rather than instructional) course focuses on students' professional attributes and integrative competence in clinical decision-making and team leadership in the prehospital setting. Upon course completion, students should have demonstrated adequate knowledge and skills, professional attitudes and attributes, clinical decision-making and team leadership abilities to effectively function as a competent entry-level paramedic.

EMERGENCY MEDICAL SERVICES (EMS)

EMS 100 CARDIOPULMONARY RESUSCITATION I

(1T)

1 credit

PREREQUISITE: As required by program.

This course provides students with concepts as related to areas of basic life support to include coronary artery disease, prudent heart living, symptoms of heart attack, adult one-and-two rescuer CPR, first aid for choking, pediatric basic life support, airway adjuncts, EMS system entry access, automated external defibrillation (AED), and special situations for CPR. Upon course completion, students

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should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for each condition. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 101 CARDIOPULMONARY RESUSCITATION II

(1T)

1 credit

PREREQUISITE: EMS 100 and/or as required by program.

This course provides students with a review of concepts learned in EMS-100. In addition, the course provides the student with theory and application of airway adjuncts as utilized with airway obstruction and maintenance as well as respiratory and cardiac arrest. Assessment and management of acute ischemic stroke will also be included. Upon course completion, students should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for these conditions. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 103 FIRST AID (1T)

1 credit

PREREQUISITE: Current training in CPR and/or as required by program.

This course introduces students to initial first aid care. Topics include scene safety, universal precautions, activation of the EMS system, assessment, airway/breathing/circulation, shock/injuries/bleeding, medical emergencies, and altered level of consciousness. Upon course completion, students should have knowledge to manage various emergencies requiring first aid techniques.

EMS 106 MEDICAL TERMINOLOGY FOR HEALTH PROFESSIONS (2T)

2 credits

PREREQUISITE: As required by program.

This course provides students with a survey of words, terms, and descriptions commonly used in health related professions. The course includes spelling, pronunciation, and meaning of prefixes, suffixes, roots, and terms. Students may have the opportunity to utilize computer assisted instruction for learning various medical terms. Upon course completion, students should have the knowledge to associate a variety of medical terms with their meaning and utilize medical terms to effectively communicate with other health professionals.

EMS 107 EMERGENCY VEHICLE OPERATOR

AMBULANCE (1T)

1 credit

PREREQUISITE: Must present a valid driver's license as required by program.

The Emergency Vehicle Operator Course - Ambulance provides the student with training as contained in the current National Standard Training Curriculum (NSTC) for the Emergency Vehicle Operator Course (EVOC) Ambulance. The course provides the knowledge and skill practice necessary for individuals to learn how to safely operate all types of ambulances. Topics include introduction to the NSTC for ambulance operators; legal aspects of ambulance operation; communication and reporting; roles and responsibilities; ambulance types and operation; ambulance inspection, maintenance, and repair; navigation and route planning; basic maneuvers and normal operating situa-

tions; operations in emergency mode and unusual situations, special considerations in safety; and the run. Completion of specific student competencies, utilizing NSTC guidelines, are required for successful completion of this course. NOTE: To qualify for licensure status as an ambulance driver in the State of Alabama, students must successfully complete this course and meet additional requirements as required by the Alabama Department of Public Health.

EMS 116 EMS BASIC THEORY AND LAB (6T,6M)

9 credits

This course is required to apply for certification as an EMT basic. This course provides students with insights into the theory and application of concepts related to the profession of emergency medical services. Specific topics include: EMS preparatory, airway maintenance, patient assessment, treating trauma patients, various medical procedures, treating infants and children, and various EMS operations. This course is based on the Emergency Medical Technician-Basic National Standard Curriculum.

EMS 117 EMS BASIC CLINICAL COMPETENCIES (3C)

1 credit

This course is required to apply for certification as an EMT basic. This course provides students with clinical education experiences to enhance knowledge and skills learned in the EMS 116, EMS Basic Theory and Lab. This course helps students prepare for the National Registry Exam.

EMS 218 SUPERVISED STUDIES IN EMS – I (1T)

1 credit

PREREQUISITE: As required by program.

This course offers various topics of interest and need in emergency medical services. The course is conducted and completed under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.

EMS 219 SUPERVISED STUDIES IN EMS – II (1T)

1 credit

PREREQUISITE: As required by program.

This course offers various topics of interest and need in emergency medical services. The course is conducted and completed under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.

ENGLISH (ENG)

ENG 092 BASIC ENGLISH I (3T)

3 credits

This course is a review of basic writing skills and basic grammar. Emphasis is placed on the composing process of sentences and paragraphs in standard American written English. Students will demonstrate these skills chiefly through the writing of well-developed, multi-sentence paragraphs.

ENG 093 BASIC ENGLISH II (3T)

3 credits

PREREQUISITE: A grade of "C" or better in ENG 092 or satisfactory placement score

This course is a review of composition skills and grammar. Emphasis is placed on coherence and the use of a variety of sentence structures in the composing process and on

standard American written English usage. Students will demonstrate these skills chiefly through the writing of paragraph blocks and short essays.

and literary contexts, and understand relevant criticism and research.

ENG 101 ENGLISH COMPOSITION I (3T) 3 credits
PREREQUISITE: Grade of "C" or better in ENG 093 or satisfactory ACT, SAT, or placement score

English Composition I provides instruction and practice in the writing of at least six (6) extended compositions and the development of analytical and critical reading skills and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage.

ENG 102 ENGLISH COMPOSITION II (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 101 or equivalent

English Composition II provides instruction and practice in the writing of six (6) formal, analytical essays, at least one of which is a research project using outside sources and/or references effectively and legally. Additionally, English Composition II provides instruction in the development of analytical and critical reading skills in the composition process. English Composition II may include instruction and practice in library usage.

ENG 130 TECHNICAL REPORT WRITING (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 101 or equivalent

This course provides instruction in the production of technical and/or scientific reports. Emphasis is placed on research, objectivity, organization, composition, documentation, and presentation of the report. Students will demonstrate the ability to produce a written technical or scientific report by following the prescribed process and format.

ENG 251 AMERICAN LITERATURE I (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of American literature from its inception to the middle of the nineteenth century. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 252 AMERICAN LITERATURE II (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of American literature from the middle of the nineteenth century to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written composition, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical

ENG 261 ENGLISH LITERATURE I (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of English literature from the Anglo-Saxon period to the Romantic Age. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 262 ENGLISH LITERATURE II (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of English literature from the Romantic Age to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 271 WORLD LITERATURE I (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of selected literary masterpieces from Homer to the Renaissance. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 272 WORLD LITERATURE II (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of selected literary masterpieces from the Renaissance to the present. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 297 AFRICAN-AMERICAN LITERATURE (3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of literature produced by representative African Americans from the eighteenth century to the present. The course emphasizes the diversity of themes

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and techniques found in these works and examines the historical, cultural, literary and philosophical forces that shaped these works and that are reflected in them. Students will demonstrate the ability to interpret the literature and to relate the works to their historical and literary contexts.

ENG 298 SPECIAL TOPICS IN LANGUAGE AND LITERATURE (1-2T)

1-2 credits

This course, which may be repeated for credit as long as the topics differ, permits a student to study with an instructor a topic in English language or in literature. Emphasis is placed on a narrowly focused topic in which the instructor has special expertise, knowledge, or interest. Students will demonstrate through a research paper and/or a literary critique an understanding of the topic.

ENG 299 DIRECTED STUDIES IN LANGUAGE AND LITERATURE (1-3T)

1-3 credits

This course, which may be repeated for credit as long as the topics differ, provides the student the opportunity to study an English language or literary topic chosen by the student in consultation with the instructor. Emphasis is placed on the student's investigating the topic and reporting the results of the investigation. The student will demonstrate knowledge of the topic through either a written or an oral presentation.

ENGLISH AS A SECOND LANGUAGE ALABAMA LANGUAGE INSTITUTE (ALI)

ALI 030 COMPOSITION I (3T)

3 credits

This course is the beginner course in writing for non-native English speakers. This course provides instruction in basic sentence patterns and progresses through fully developed essays. Upon completion, students will demonstrate improvement in use of standard written English.

ALI 040 READING AND VOCABULARY I (3T)

3 credits

This course is the beginning reading and comprehension course for non-native English speakers. This course provides instruction in a variety of technical, literary and recreational readings. Upon completion, students will demonstrate improvement in English and reading and comprehension.

ALI 050 CONVERSATIONAL ENGLISH I (3T)

3 credits

This course is the beginner course in oral communication for non-native English speakers. This course provides instruction in practice dialogues and grammatical exercises as well as free conversation. Upon completion, students will demonstrate improvement in oral communication skills.

FIRE SERVICES MANAGEMENT (FSC)

FSC 101 INTRODUCTION TO THE FIRE SERVICE (3T)

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 federal, state, county, city, and private fire protection.

FSC 200 FIRE COMBAT TACTICS AND STRATEGY (3T)

3 credits

This course is a review of fire chemistry, equipment and manpower, basic fire fighting tactics and strategy, methods of attack and preplanning fire problems.

FSC 210 BUILDING CONSTRUCTION FOR THE FIRE SERVICE (3T)

3 credits

This course highlights and assesses the problems and hazards to fire personnel when a building is attacked by fire or is under stress from other factors dealing with collapse.

FSC 240 FIRE CAUSE DETERMINATION (3T)

3 credits

This course covers the burning characteristics of combustibles, interpretation of clues, burn patterns leading to points of origin, identification of incendiary indications, sources of ignition and ignited materials, and preservation of fire science evidence.

FSC 292 ELEMENTS OF SUPERVISION/FIRE SERVICE SUPERVISION (3T)

3 credits

This course covers the responsibility of supervisors, organization, human relations, grievance training, rating, promotion, quality-quantity control, and management-employee relations.

FRENCH (FRN)

FRN 101 INTRODUCTORY FRENCH I (4T)

4 credits

This course provides an introduction to French. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of French-speaking areas.

FRN 102 INTRODUCTORY FRENCH II (4T)

4 credits

PREREQUISITE: FRN 101 or equivalent.

This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of French-speaking areas.

FRN 201 INTERMEDIATE FRENCH I (3T)

3 credits

PREREQUISITE: FRN 102 or equivalent

This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

FRN 202 INTERMEDIATE FRENCH II (3T)

3 credits

PREREQUISITE: FRN 201 or equivalent

This continuation course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

GEOGRAPHY (GEO)

GEO 100 WORLD REGIONAL GEOGRAPHY (3T)

3 credits

This course surveys various countries and major regions of the world with respect to location and landscape, world importance and political status, population, type of economy, external and internal organization and relations, problems and potentials.

GEO 200 GEOGRAPHY OF NORTH AMERICA (3T) 3 credits
PREREQUISITE: GEO 100
This course is a survey of the geography of the United States and Canada with special emphasis on land usage, mineral resources, industrial development, and social and economic adaptation of man and the natural environment.

GEO 201 PRINCIPLES OF HUMAN GEOGRAPHY (3T) 3 credits
PREREQUISITE: GEO 100
This course surveys the science of location, with emphasis on human activities as it relates to agricultural and industrial activities, and cities as market and production centers. Emphasis will be placed on human networks.

GEO 220 PRINCIPLES OF PHYSICAL GEOGRAPHY (3T) 3 credits
This course is an introduction to natural features of the earth. It concentrates on weather, climate, soil, and vegetation associations, on landforms and on the forces that have been active in shaping the earth's surface.

GERMAN (GRN)

GRN 101 INTRODUCTORY GERMAN I (4T) 4 credits
This course provides an introduction to German. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of German-speaking areas.

GRN 102 INTRODUCTORY GERMAN II (4T) 4 credits
PREREQUISITE: GRN 101 or equivalent
This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of German-speaking areas.

GRN 201 INTERMEDIATE GERMAN I (3T) 3 credits
PREREQUISITE: GRN 102 or equivalent
This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

GRN 202 INTERMEDIATE GERMAN II (3T) 3 credits
PREREQUISITE: GRN 201 or equivalent
This continuation course includes a review and further development of communication skills. Topics include readings in literary, historical and/or cultural texts.

HEALTH EDUCATION (HED)

HED 221 PERSONAL HEALTH (3T) 3 credits
This course introduces principles and practices of personal and family health. It includes human reproduction, growth and development, psychological dimensions of health, human sexuality, nutrition and fitness, aging, death and dying.

HED 222 COMMUNITY HEALTH (3T) 3 credits
This course introduces principles and practices of community health. It includes drug use and abuse, communicable

diseases, cardiovascular diseases, cancer, consumer health, health organization, and environmental concerns.

HED 226 WELLNESS (1-3T) 1-3 credits
This course provides health-related education to those individuals seeking advancement in the area of personal wellness. This course has 5 major components: (1) fitness and health assessment, (2) physical work capacity, (3) education, (4) reassessment and (5) retesting.

HED 230 SAFETY AND FIRST AID (3T) 3 credits
HED 230 is divided into two parts. The first part concerns itself with the development of a safety education program within an organization (i.e. school, office, shop, etc.). The second part deals with physical injuries, emergency care, and treatment of those injuries. CPR certification and Standard Red Cross and/or American Heart Association cards are given upon successful completion of American Red Cross requirements.

HED 231 FIRST AID (3T) 3 credits
This course provides instruction to the immediate, temporary care which should be given to the victims of accidents and sudden illnesses. It also includes standard and advanced requirements of the American Red Cross and/or the American Heart Association. CPR training also is included.

HED 277 CPR RECERTIFICATION (1T) 1 credit
In this course, instruction and review of up-dated information concerning cardio-pulmonary resuscitation (CPR) is presented. The student must satisfactorily execute skills needed to meet requirements for recertification in Basic Cardiac Life Support (BCLS) as required by the American Heart Association.

HISTORY (HIS)

HIS 101 WESTERN CIVILIZATION I (3T) 3 credits
This course is a survey of social, intellectual, economic, and political developments which have molded the modern western world. The course covers the ancient and medieval periods and concludes in the era of the Renaissance and Reformation.

HIS 102 WESTERN CIVILIZATION II (3T) 3 credits
This course is a continuation of HIS 101; it surveys development of the modern western world from the era of the Renaissance and Reformation to the present.

HIS 111 TECHNOLOGY AND CIVILIZATION I (3T) 3 credits
This course introduces the interaction between technology and culture in World History from prehistoric times to 1750. While the course provides a basic survey of World History, primary emphasis is placed on technological change and its consequences.

HIS 112 TECHNOLOGY AND CIVILIZATION II (3T) 3 credits
This course is a continuation of HIS 111. It surveys technology and culture in World History from 1750 to the pre-

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sent. The course provides a basic survey of modern world history. The course places primary emphasis on technological change and its consequences.

HIS 121 WORLD HISTORY I (3T) 3 credits

This course surveys social, intellectual, economic, and political developments which have molded the modern world. Focus is on both non-western and western civilizations from the prehistoric to the early modern era.

HIS 122 WORLD HISTORY II (3T) 3 credits

This course is a continuation of HIS 121; it covers world history, both western and non-western, from the early modern era to the present.

HIS 201 UNITED STATES HISTORY I (3T) 3 credits

This course surveys United States history during colonial, Revolutionary, early national, and antebellum periods. It concludes with the Civil War.

HIS 202 UNITED STATES HISTORY II (3T) 3 credits

This course is a continuation of HIS 201; it surveys United States history from the Reconstruction era to the present.

HIS 216 HISTORY OF WORLD RELIGIONS (3T) 3 credits

This course presents a comparison of the major religions of the world from an historical perspective. Emphasis is placed on the origin, development, and social influence of Christianity, Judaism, Islam, Hinduism, Buddhism, and others.

HIS 220 CONTEMPORARY STUDIES (3T) 3 credits

This course provides a survey of contemporary problems and issues within an historical context. Topics might include nationalism, the rise of Islam as a powerful influence in the post-Cold War environment, environmental issues, and the impact of colonialism on modern, Third World society.

HIS 256 AFRICAN-AMERICAN HISTORY (3T) 3 credits

This course focuses on the experience of African-American people in the Western Hemisphere, particularly in the United States. It surveys the period from the African origins of the slave trade during the period of exploration and colonization to the present. The course presents a comparison between the African experience in the United States and in Mexico and South America.

HIS 260 ALABAMA HISTORY (3T) 3 credits

This course surveys development of the state of Alabama from its prehistoric times to the present. The course presents material on the discovery, exploration, colonization, territorial period, antebellum Alabama, Reconstruction, and modern history.

HIS 299 DIRECTED STUDIES IN HISTORY (1-3T) 1-3 credits

This course affords students opportunities to study selected topics of a historical nature under the direction of an instructor either as part of class or on an individual basis. Internships with historical and preservation organizations, thesis development, and the analysis of secondary monographs are examples of activities for this course. HIS 299 may be repeated for credit.

HIS 299A HISTORY OF THE ANTEBELLUM SOUTH

(1-3T)

1-3 credits

This is a special History section in that it revolves around a 2-day field trip in the Antebellum South. The trip will consist of visiting several antebellum plantations/homes in the South. Two major topics will be addressed in this course and on the trip; (1) Life in/on southern antebellum plantations, and (2) the Jacksonian Era. In the readings for this course, the student will be introduced to a variety of peoples, places, and events that played an integral part in shaping the antebellum south. On the trip, the student will see numerous sites ranging from Rippavilla Plantation to The Hermitage. This trip back through time will, among other things, enable the student to perceive the past as it was experienced by those at the time and acquire both a comprehension of diverse cultures and of shared humanity.

HIS 299B SOUTHERN CIVIL WAR HISTORY

(1-3T)

1-3 credits

This is a special History section in that it revolves around a 2-day field trip to southern Civil War locations. The trip will consist of visiting several locations that were important in the South's attempt at independence from the Union. Two major topics will be addressed in this course and on the trip; (1) Life in the south before, during, and after the Civil War, and (2) some of the battles that took place in the South. In the readings for this course, the student will be introduced to a variety of peoples, places, and events that played an integral part in shaping the South's struggle for independence. On the trip, the student will see numerous sites ranging from Carnton House to the Shiloh Battlefield. This trip back through time will, among other things, enable the student to perceive the past as those at the time experienced it and acquire both a comprehension of diverse cultures and of shared humanity.

HIS 299C NATCHEZ TRACE HISTORY

(1-3T)

1-3 credits

This is a special History section in that it revolves around a 3-day field trip down the Natchez Trace Parkway. The trip will consist of visiting several locations that were important in development and growth of the Natchez Trace. Two major topics will be addressed in this course and on the trip; (1) Life and travel along the Old Natchez Trace, and (2) Mounds and Mound Builders along the Old Natchez Trace. In the readings for this course, the student will be introduced to a variety of peoples, and in some cases, specific individuals, who traveled, settled, lived, and died along this historic path. On the trip, the student will see numerous historic markers and sites ranging from pre-Columbian Indian mounds to early 19th century stands. This trip back through time will, among other things, enable the student to perceive the past as those at the time experienced it and acquire both a comprehension of diverse cultures and of shared humanity.

HIS 299D HISTORY THROUGH FILM

(1-3T)

1-3 credits

What, if anything, can you learn about history by watching movies? This course looks at critical historical moments and issues of conflict and change, through the vehicle of film. The course is designed to teach students how to use films as historical evidence and how to analyze films as historical documents. This course analyzes relationships

between film and history, that is, the ways in which films recreate, distort, interpret, and communicate historic events and personalities. We will look at issues of authenticity and voice, some of the pitfalls of using film to understand history, and the role of cinema in the creation of national and popular memory. Although most of these films have been analyzed on many levels, the emphasis of this particular course will be on content and social or political vision, rather than film theory, technique, or aesthetics. By watching, discussing, and writing about these films, we will examine how motion pictures create a window into society. Students will learn how to read films as cultural texts that help us better understand our history and culture. One of the two weekly class meetings will be a film showing; in addition to required readings, there will sometimes be a second film assigned to watch outside of class.

HIS 299E TWENTIETH-CENTURY AMERICA

(1-3T)

1-3 credits

This course looks at critical historical moments and issues in America's twentieth century, such as, the origins and consequences of World War II; the Truman administration and the Fair Deal; the origins of the Cold War; international and domestic issues and conflicts from the 1940s to the 1990s. The twentieth century saw many individuals and events that changed the course of American history with dramatic speed and force. Two World Wars, the presidency of Franklin Roosevelt, the Cold War, Hollywood, Civil Rights, the Kennedy years, the Clinton presidency-the period holds an abundance of themes and topics ripe for historical and investigative support by swathes of textual and experiential evidence.

HEALTH SCIENCE (HPS)

HPS 100 SAFETY ISSUES FOR CLINICAL PRACTICE

(1T)

1 credit

PREREQUISITE: ENG 101, SPH 107, PSY 200, MTH 100 or MTH 112 or MTH 116 (FOR NUR STUDENTS ONLY) or Permission of instructor.

COREQUISITE: BIO 201, PSY 210, NUR 110, NUR 131, NUR 241 (FOR NUR STUDENTS ONLY).

This course focuses on microbial and physical safety for clinical practice. Emphasis is placed on guidelines established by the Occupational Safety and Health Administration (OSHA) and the Alabama State Department of Public Health: topics include prevention of transmission of blood-borne and air-borne pathogens as well as prevention of injuries during clinical practice. Upon completion of this course, the student should be able to participate in the clinical setting implementing measures which will prevent injuries and using appropriate universal precautions.

HPS 105 MEDICAL TERMINOLOGY (2T, 2E)

3 credits

PREREQUISITE: As required by program.

This course is an application for the language of medicine. Emphasis is placed on terminology associated with health care, spelling, pronunciation, and meanings associated with prefixes, suffixes, and roots as they relate to anatomical body systems. Upon completion of this course, the student should be able to correctly abbreviate medical terms and

appropriately use medical terminology in verbal and written communication.

HPS 113 SPANISH FOR HEALTH CARE PROFESSIONALS (3T)

3 credits

This course provides an introduction to Spanish with a focus on the basic communication skills and vocabulary needed by health professionals when a non-English speaking Hispanic enters a health care setting. Topics include soliciting identification information, history taking, performance of physical exam and giving instructions on general care and follow-up.

HPS 114 BASIC PHARMACOLOGY (2T)

2 credits

PREREQUISITE: As required by program.

This course is an introduction to basic pharmacology. Content includes classifications, indications, contraindications, desired effects, and side effects of medications used during diagnostic procedures and the prevention and treatment of common illnesses. Upon completion of the course, the student should be able to relate basic pharmacological concepts to the maintenance of health.

INTERDISCIPLINARY STUDIES (IDS)

IDS 114 INTERDISCIPLINARY SEMINAR: CURRENT TOPICS IN HUMAN CONCERNS (1-2T)

1-2 credits

PREREQUISITE: Permission of the instructor.

This course is a seminar/discussion course designed to provide an opportunity for the student to conduct an in-depth investigation of selected topics. The particular topic selected will include issues from two or more disciplines and is determined by faculty and student interest. Classroom experiences emphasize and help develop skills in organizing and presenting information as well as explaining and defending ideas and conclusions. An oral seminar presentation is required. IDS 114 may be repeated for credit.

INDUSTRIAL ELECTRONICS TECHNOLOGY (ILT)

ILT 103 INTRODUCTION TO INSTRUMENTATION TECHNOLOGY (1T, 4E)

3 credits

PREREQUISITE: ELT 108 and ELT 109

This course introduces various hand and power tools, basic blueprint reading, basic rigging and basic math that will be used in the electronic, instrumentation and electrical trades. Emphasis is placed on basic hand tool and power tool safety and procedures for selecting, inspecting, using and maintaining these tools. Upon completion, students should be able to identify and use various hand and power tools, read a blueprint and know how to perform basic rigging.

ILT 104 INDUSTRIAL INSTRUMENTATION (3T)

3 credits

PREREQUISITE: ILT 103

This course provides a study of instrumentation circuits/systems. Topics include the use of transducers, detectors, actuators, and/or other devices and equipment in industrial applications. Upon completion, the student should be able to apply principles of instrumentation cir-

Course Descriptions

cuits and systems.

ILT 105 INDUSTRIAL INSTRUMENTATION LAB (4E) 2 credits
COREQUISITE: ILT 104

A companion to ILT 104, this lab includes the use of transducers, detectors, actuators, and/or other devices and equipment in industrial application. Upon completion of the course, the student should be able to apply principles of instrumentation circuits and systems.

ILT 108 INTRODUCTION TO INSTRUMENTS AND PROCESS CONTROL (2T, 2E) 3 credits
PREREQUISITE: ILT 104, ILT 105

This course is an introductory study of the control devices and methods used in industry for the control and transmission of information pertaining to process variables. This study includes an introduction to instrumentation and control mathematics. This course also provides instruction in the fundamental concepts of pressure, force, weight, motion, liquid level, fluid flow and temperature.

ILT 163 DIGITAL FUNDAMENTALS (1T, 4E) 3 credits
PREREQUISITE: ELT 108 AND ELT 109
COREQUISITE: ELT 221

This course provides instruction on basic logic gates, flip-flops, registers, counters, microprocessor/computer fundamentals, analog to digital conversion, and digital analog conversion. Emphasis is placed on number systems, Boolean algebra, combination logic circuits, sequential logic circuits, and typical microprocessor data manipulation and storage. This course also has an embedded lab with exercises designed to develop skills required by industry. Upon completion, students should be able to analyze digital circuits, draw timing diagrams, determine output of combinational and sequential logic circuits and diagnose and troubleshoot electronic components as well as demonstrate knowledge of microprocessor and computer circuits.

ILT 214 CONTROL AND TROUBLESHOOTING FLOW, LEVEL, TEMPERATURE, PRESSURE AND LEVEL PROCESSES (2T, 2E) 3 credits
PREREQUISITE: ELT 221, ELT 231

The student is introduced to analog and digital process control systems. The student is also introduced to process control techniques commonly found in industrial processes used to maintain control process variables. The student gains knowledge and experience in the design and selection of equipment used in troubleshooting control loops on actual equipment in the lab.

ILT 216 INDUSTRIAL ROBOTICS (3T) 3 credits
PREREQUISITE: ELT 108 and ELT 109
COREQUISITE: ILT 217

This course covers principles of electro-mechanical devices. Topics include the principles, concepts, and techniques involved in interfacing microcomputers to various electro-mechanical devices to produce geographical movement. Upon completion, students should be able to apply the principles of electro-mechanical devices.

ILT 217 INDUSTRIAL ROBOTICS LAB (4E) 2 credits
COREQUISITE: ILT 216

This lab covers the principles, concepts, and techniques involved in interfacing microcomputers to various electro-mechanical devices to produce geographical movement. Upon completion students should be able to apply the principles of electro-mechanical devices.

INDUSTRIAL MAINTENANCE TECHNOLOGY (INT)

INT 117 PRINCIPLES OF INDUSTRIAL MECHANICS (1T, 4E) 3 credits

This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment. Topics include the basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment.

INT 126 PREVENTIVE MAINTENANCE (1T, 4E) 3 credits

This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts.

INT 127 PRINCIPLES OF INDUSTRIAL PUMPS AND PIPING SYSTEMS (2T, 2E) 3 credits

This course provides instruction in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation, maintenance and troubleshooting, and piping systems and their installation. Upon course completion, students will be able to install, maintain, and troubleshoot industrial pumps and piping systems.

INT 234 PRINCIPLES OF INDUSTRIAL MAINTENANCE WELDING AND METAL CUTTING TECHNIQUES (1T, 4E) 3 credits

This course provides instruction in the fundamentals of acetylene cutting and the basics of welding needed for the maintenance and repair of industrial production equipment. Topics include oxy-fuel safety, choice of cutting equipment, proper cutting angles, equipment setup, cutting plate and pipe, hand tools, types of metal welding machines, rod and welding joints, and common welding passes and beads. Upon course completion, students will demonstrate the ability to perform metal welding and cutting techniques necessary for repairing and maintaining industrial equipment.

INT 291 COOPERATIVE EDUCATION (15I) 3 credits
PREREQUISITE: Permission of Instructor

This course provides students work experience with a college-approved employer in an area directly related to the student's program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon

completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

INT 292 COOPERATIVE EDUCATION (15I) 3 credits
PREREQUISITE: Permission of Instructor

This course provides students work experience with a college-approved employer in an area directly related to the student's program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

INT 293 COOPERATIVE EDUCATION (15I) 3 credits
PREREQUISITE: Permission of Instructor

This course provides students work experience with a college-approved employer in an area directly related to the student's program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

MACHINE TOOL TECHNOLOGY (MTT)

MTT 107 MACHINING CALCULATIONS I (3T) 3 credits
PREREQUISITES: MTT 147 and MTT 149 or Permission of instructor

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations. This course is aligned with NIMS certification standards.

MTT 108 MACHINIST HANDBOOK FUNCTIONS I (3T) 3 credits
PREREQUISITES: MTT 107 or Permission of instructor

This course covers the machinist's handbook. Emphasis is placed on formulas, tables, usage and related information. Upon completion, students should be able to use the handbook in the calculation and set-up of machine tools. This course is aligned with NIMS certification standards.

MTT 109 ORIENTATION TO COMPUTER ASSISTED MANUFACTURING (3T) 3 credits
PREREQUISITE: MTT 140 and MTT 141 or Permission of Instructor

This course serves as an overview and introduction to computer assisted manufacturing (CAM) and prepares students for more advanced CAM courses. Topics covered are basic concepts and terminology, CAM software environments, navigation commands and file management, 2-D geometry, construction modification, and toolpath generation for CAM machining processes.

MTT 121 BASIC BLUEPRINT READING FOR MACHINISTS (3T) 3 credits
FORMERLY: MTT 126
PREREQUISITES: Permission of instructor
This course covers the basic principles of blueprint reading

and sketching. Topics include multiview drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches. This is a CORE course and is aligned with NIMS certification standards.

MTT 128 GEOMETRIC DIMENSIONING AND TOLERANCING I (3T) 3 credits
PREREQUISITES: MTT 121 or Permission of instructor

This course is designed to teach students how to interpret engineering drawings using modern conventions, symbols, datums, datum targets, and projected tolerance zones. Special emphasis is placed upon print reading skills, and industry specifications and standards. This course is aligned with NIMS certification standards.

MTT 130 MACHINING CALCULATIONS II (3T) 3 credits
FORMERLY MTT 142
PREREQUISITE: MTT 107

This course emphasizes advanced calculations common to machining operations. Students use these calculations for advanced applications for machine setup and planning. Specific topics include positive and negative numbers, symbolism, and algebraic expressions and operations. At the conclusion of this course students will be able to apply advanced machine calculations to equipment set-up and planning.

MTT 134 ENGINE LATHE I (2T,2E) 3 credits
PREREQUISITE: MTT 149 AND MTT 150
COREQUISITE: MTT 135

This course includes more advanced lathe practices such as set-up procedures, work planning, inner- and outer-diameter operations, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced lathe techniques. This course is aligned with NIMS standards.

MTT 135 ENGINE LATHE LAB I (6E) 3 credits
FORMERLY MTT 129
PREREQUISITE: MTT 107
COREQUISITE: MTT 134

This course includes more advanced lathe practices such as set-up procedures, work planning, inner- and outer-diameter operations, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced lathe techniques. This course is aligned with NIMS standards.

MTT 137 MILLING I (2T,2E) 3 credits
FORMERLY MTT 136
PREREQUISITE: MTT 149 AND MTT 107
COREQUISITE: MTT 138

This course covers manual milling operations. Emphasis is placed on related safety, types of milling machines and their uses, cutting speed, feed calculations, and set-up and operation procedures. Upon completion, students should be able to apply manual vertical milling techniques to produce machine tool projects. This course is aligned with NIMS certification standards.

Course Descriptions

COURSE DESCRIPTIONS

MTT 138 MILLING I LAB (6E) 3 credits
FORMERLY MTT 136
COREQUISITE: MTT 137

This course provides basic knowledge of milling machines. Emphasis is placed on types of milling machines and their uses, cutting speed, feed calculations, and set-up procedures. Upon completion, students should be able to apply milling techniques to produce machine tool projects. This course is aligned with NIMS certification criteria.

MTT 139 BASIC COMPUTER NUMERICAL CONTROL (2T, 2E) 3 credits
PREREQUISITES: MTT 135 or Permission of instructor

This course introduces the concepts and capabilities of computer numeric control (CNC) machine tools. Topics include set-up, operation, and basic applications. Upon completion, students should be able to develop a basic CNC program to safely operate a lathe and milling machine. This course is aligned with NIMS certification standards.

MTT 140 BASIC COMPUTER NUMERICAL CONTROL TURNING PROGRAMMING I (1T, 4E) 3 credits
PREREQUISITES: MTT 130 AND MTT 135 AND MTT 139 or Permission of instructor

This course covers concepts associated with basic programming of a computer numerical control (CNC) turning center. Topics include basic programming characteristics, motion types, tooling, workholding devices, set-up documentation, tool compensations, and formatting. Upon completion, students should be able to write a basic CNC turning program that will be used to produce a part. This course is aligned with NIMS certification standards.

MTT 141 BASIC COMPUTER NUMERICAL CONTROL MILLING PROGRAMMING I (1T, 4E) 3 credits
PREREQUISITES: MTT 138 AND MTT 139 or Permission of instructor

This course covers concepts associated with basic programming of a computer numerical control (CNC) milling center. Topics include basic programming characteristics, motion types, tooling, workholding devices, setup documentation, tool compensations, and formatting. Upon completion, students should be able to write a basic CNC milling program that will be used to produce a part. This course is aligned with NIMS certification standards.

MTT 144 ELECTRICAL DISCHARGE MACHINING I (1T, 4E) 3 credits
PREREQUISITES: MTT 140 AND MTT 141 or Permission of instructor

This course introduces the student to the concepts of Electrical Discharge Machining (EDM) and the importance of EDM in an industrial setting. Emphasis is placed on safety procedures and machinist responsibility in the set-up and operation of EDM machines and electrode selection. Upon completion, students should be able to produce basic machine products using both the wire-type and plunge-type EDM machines. This course is aligned with NIMS certification standards.

MTT 147 INTRODUCTION TO MACHINE SHOP I (2T, 2E) 3 credits
PREREQUISITE: Permission of instructor
COREQUISITE: MTT 148

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, saws, milling machines, bench grinders, and layout instruments. Upon completion, students will be able to perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. This is a CORE course.

MTT 148 INTRODUCTION TO MACHINE SHOP I LAB (6E) 3 credits
PREREQUISITE: Permission of instructor
COREQUISITE: MTT 147

This course provides practical application of the concepts and principles of machining operations learned in MTT 147. Topics include machine shop safety, measuring tools, lathes, saws, milling machines, bench grinders, and layout instruments. Upon completion, students will be able to perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. This is a CORE course. This course is aligned with NIMS certification standards.

MTT 149 INTRODUCTION TO MACHINE SHOP II (2T, 2E) 3 credits
PREREQUISITE: MTT 147 AND MTT 148 OR Permission of instructor
COREQUISITE: MTT 150

This course provides additional instruction and practice in the use of measuring tools, lathes, milling machines, and grinders. Emphasis is placed on set-up and operation of machine tools including the selection of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform intermediate level procedures of precision grinding, measuring, layout, drilling, sawing, turning, and milling. This is a CORE course and is aligned with NIMS certification standards.

MTT 150 INTRODUCTION TO MACHINE SHOP II LAB (6E) 3 credits
PREREQUISITE: MTT 147 AND MTT 148 or Permission of instructor
COREQUISITE: MTT 149

This course provides additional instruction and practice in the use of measuring tools, lathes, milling machines, and grinders. Emphasis is placed on set-up and operation of machine tools including the selection of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform intermediate level procedures of precision grinding, measuring, layout, drilling, sawing, turning, and milling. This is a CORE course and is aligned with NIMS certification standards.

MTT 162 PRECISION GRINDING (2T, 2E) 3 credits
FORMERLY MTT 146 AND MTT 161
PREREQUISITE: MTT 138
COREQUISITE: MTT 163

This course includes more advanced precision grinder practices such as set-up procedures, work planning, surface grinding, cylindrical grinding, tool and cutter grinding, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced precision grinding techniques. This course is aligned with NIMS standards.

MTT 163 PRECISION GRINDING LAB (6E) 3 credits

FORMERLY MTT 146 AND MTT 162

COREQUISITE: MTT 162

This course provides practical application of the concepts and principles of precision grinding learned in MTT 161. Topics include set-up procedures, work planning, surface grinding, cylindrical grinding, tool and cutter grinding, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced precision grinding techniques. This course is aligned with NIMS standards.

MTT 212 ADVANCED COMPUTER NUMERICAL CONTROL TURNING (1T, 4E) 3 credits
PREREQUISITE: MTT 243

This course details the use of canned cycles and subprograms in computer numerical control (CNC) turning programs. Upon completing this course, the student should be able to write CNC turning programs using canned cycles and subprograms.

MTT 213 ADVANCED COMPUTER NUMERICAL CONTROL MILLING (1T, 4E) 3 credits
PREREQUISITE: MTT 235

This course details the use of canned cycles and subprograms in computer numerical control (CNC) milling programs. Upon completing this course, the student should be able to write CNC milling programs using canned cycles and subprograms.

MTT 218 COMPUTER INTEGRATED MANUFACTURING (CIM) (3T) 3 credits
PREREQUISITES: MTT 219 AND MTT 220

This course is a basic introduction to concepts related to the computer integrated manufacturing (CIM) process. Students cover the design requirements associated with such a cell (center), how a center is integrated into the full system, and the technician's role in the process improvement of not only the cell but the full CIM system. Related safety and inspection and process adjustment are also covered.

MTT 219 COMPUTER NUMERICAL CONTROL GRAPHICS: TURNING (1T, 4E) 3 credits
PREREQUISITES: MTT 140 AND MTT 149 or Permission of instructor

This course covers techniques involved in writing a program for a multi-axis computerized numeric control (CNC) turning machine using computer assisted manufacturing (CAM) software. In addition, CNC turning machine set-up, programming, and operation are detailed. Upon completion, the student should be able to set-up, program, and operate a 3-axis CNC turning machine to produce a 2-axis part using CAM software. This course is aligned with NIMS certification standards.

MTT 220 COMPUTER NUMERICAL CONTROL GRAPHICS: MILLING (1T, 4E) 3 credits
PREREQUISITES: MTT 109 AND MTT 141 or Permission of instructor

This course covers techniques involved in writing a program for a multi-axis computerized numeric control (CNC) milling machine using computer assisted manufacturing (CAM) software. In addition, CNC milling machine set-up,

programming, and operation are detailed. Upon completion, the student should be able to set-up, program, and operate a 3-axis CNC milling machine to produce a 2-axis part using CAM software. This course is aligned with NIMS certification standards.

MTT 241 CNC MILLING LAB I (6E) 3 credits
PREREQUISITE: MTT 141
Formerly: MTT 235

This course covers basic (3-axis) computer numeric control (CNC) milling machine setup and operating procedures. Upon completion, the student should be able to load a CNC program and set-up and operate a 3-axis CNC milling machine to produce a specified part. Related safety, inspection, and process adjustment are also covered.

MTT 242 CNC MILLING LAB II (6E) 3 credits
PREREQUISITES: MTT 213
Formerly: MTT 236

This course covers advanced (including 4-axis) computer numeric control (CNC) milling machine set-up and operating procedures. Upon completion, the student should be able to load a CNC program and set-up and operate a CNC milling machine (including 4-axis) to produce a specified part. Related safety and inspection and process adjustment are also covered.

MTT 243 CNC TURNING LAB I (6E) 3 credits
PREREQUISITE: MTT 140

This course covers basic computer numeric control (CNC) turning machine set-up and operating procedures (inner diameter and outer diameter). Upon completion, the student should be able to load a CNC program and set-up and operate a CNC turning machine to produce a simple part. Related safety and inspection and process adjustment are also covered.

MTT 244 CNC TURNING LAB II (6E) 3 credits
PREREQUISITE: MTT 212

This course covers advanced computer numeric control (CNC) turning machine set-up and operating procedures. Upon completion, the student should be able to load a CNC program and set-up and operate a CNC turning machine to produce a specified part. Related safety and inspection and process adjustment are also covered.

MTT 281 SPECIAL TOPICS IN MACHINE TOOL TECHNOLOGY (1T, 4E) 3 credits
PREREQUISITE: MTT 244

This course is a guided study of special projects in machine tool technology. Emphasis is placed on student needs. Upon completion, students should be able to demonstrate skills developed to meet specific needs.

MASS COMMUNICATIONS (MCM)

MCM 130 NEWS REPORTING (3E) 3 credits
PREREQUISITE: Typing ability

This course includes instruction and practice in newsgathering and newswriting techniques including methodology, observation, interviews, and use of sources.

Course Descriptions

MCM 250 MASS COMMUNICATIONS PRACTICUM

(3T)

3 credits

This course provides practical experience in media through supervised part or full-time employment with a newspaper, radio or television station, or public relations/advertising agency.

MASSAGE THERAPY (MSG)

MSG 100 MESSAGE THERAPY HISTORY AND THEORY (1T)

1 credit

In this course, students learn the origin of massage as well as the types of massage that have existed throughout the world from inception to the present. Emphasis is placed on the benefits of massage, contraindication, client interviews, and client-therapist relationship. In addition to massage history, students will receive theories and research data that substantiate the efficacy of massage for modern times. Information will be provided explaining the theory and value of such techniques as Swedish massage, deep tissue massage, neuromuscular therapy, somatic re-education, myofascial release and integration.

MSG 101 MESSAGE THERAPY LABORATORY I (8E)

4 credits

In this course, students learn therapeutic massage techniques to the regions of the back, neck and torso. Students learn the variety of joint movements and introduction to sports massage. Sports massage includes principles of health-related fitness, core exercises, pre- and post-event massage, hydrotherapy, body mobilization techniques (BMT) and stretching techniques.

MSG 102 MESSAGE THERAPY LABORATORY II (8E)

4 credits

PREREQUISITE: MSG 101

In this course, students learn various techniques to work soft tissue dysfunction in specific areas of the body, to apply massage to specific muscles, affect the body's fascial sheets, palpate muscles more clearly, work in different directions of the muscle fibers (transversely and longitudinally), and to work different levels of musculature. New techniques include Myofascial release, trigger points, neuromuscular therapy, and deep tissue massage. Students learn therapeutic massage techniques to the regions of the shoulders, arms, hips, legs, feet and hands.

MSG 111 ANATOMY AND PHYSIOLOGY (1T, 4E)

3 credits

In this course, students learn how the body works, from the smallest cells to the largest systems. The course provides a general introduction to epithelial, connective, muscular and nervous tissue as well as to the nervous, endocrine, cardiovascular, immune, respiratory, gastrointestinal, genitourinary and integument systems. Students will also be taught standard first aid measures for common injuries and basic cardio-pulmonary resuscitation (CPR). The instructor uses visual tools as well as hands-on activities to enhance learning. Upon completion of this course, students will have a basic understanding of the various systems of the body and the effects of massage on these systems. Students will also be tested on competencies in standard first aid CPR.

MSG 112 MUSCULO-SKELETAL AND KINESIOLOGY I (1T, 4E)

3 credits

In this course, students learn advance study of the Musculo-skeletal system. They learn basic names and landmarks of the bones and joints as well as the origins, insertions and actions of the major muscles of the body that are important to massage therapy. Students also learn how to demonstrate muscle locations and how to palpate and shorten each of the muscles studied. Topics included specific therapeutic approaches to the regions of the back, torso, neck, examinations of these regions, the movements they produce, and common conditions of the back, torso, and neck. Students will also be able to identify and discuss common pathological conditions related to these areas.

MSG 113 MUSCULO-SKELETAL AND KINESIOLOGY II (1T, 4E) **PREREQUISITE: MSG 112**

3 credits

In this course, students learn advance study of the Musculo-skeletal system. Topics include specific therapeutic approaches to the regions of the shoulders, arms, hips and legs, examination of these regions, the movement they produce, and common pathological conditions of the shoulders, arms, hips and legs. Upon completion the students should be able to identify and discuss the regions of the shoulders, arms, hips, legs and the movements they produce and common pathological conditions.

MSG 114 PATHOLOGY (3T)

3 credits

This course presents baseline information on pathologies which massage therapists may encounter in clinical practice including conditions of the musculoskeletal, neurological, cardiovascular, lymphatic, integumentary, digestive, and immune systems. Content will include etiology, symptomatology, medical approaches to treatment and the potential positive or negative impact of massage.

MSG 120 MESSAGE THERAPY SUPERVISED CLINICAL I (3C)

1 credit

PREREQUISITE AND/OR COREQUISITE: MSG 100, MSG 101, MSG 112

In this course, students are required to demonstrate competency in specific therapeutic techniques to the back, neck and torso. Students are required to demonstrate core exercises, hydrotherapy and other health related fitness techniques such as BMT and stretching techniques.

MSG 121 MESSAGE THERAPY SUPERVISED CLINICAL II (3C)

1 credit

PREREQUISITES OR COREQUISITES: MSG 120

In this course, students are required to demonstrate competency in the proper application of specific therapeutic techniques to the whole body.

MSG 130 SPECIAL POPULATIONS (3T)

3 credits

In this course, students learn to adapt massage sessions to the needs of special populations such as pregnant women, infants, the elderly, terminally ill, survivors of abuse and persons living with HIV/AIDS. Topics include technique variations, length of session, contraindications, cautions, and possible benefits. Upon completion, students should

be able to discuss and demonstrate the techniques for special populations.

MSG 156 CAREER & PERSONAL DEVELOPMENT AND ETHICAL BEHAVIOR (2T)

2 credits

This course is designed to focus on personal development and career building skills. Emphasis is placed on building and retaining clientele, communication skills, customer services, continuing professional education and setting goals and objectives. Upon completion, the student should be able to list types of communication skills, articulate personal goals and develop a continuing education plan.

MSG 160 NATIONAL CERTIFICATION EXAM REVIEW (1T)

1 credit

This course provides a consolidated and intensive review of the basic areas of expertise needed by the entry-level massage therapist. Upon completion, the student should be able to pass a comprehensive exam on information covered in the therapeutic massage program.

MATHEMATICS (MTH)

MATHEMATICS COURSE NUMBERS DO NOT NECESSARILY REFLECT THE DIFFICULTY OF THE COURSE.

MTH 080 MATHEMATICS LABORATORY (1T)

1 credit

PREREQUISITE: As required by program

This course is designed to offer supplemental help to students in mathematics. Students work in a laboratory situation under qualified instructors. This course may be repeated as needed. Emphasis is on arithmetic and algebra as determined by the individual need of the students.

MTH 090 BASIC MATHEMATICS (3T)

3 credits

PREREQUISITE: None

This is a developmental course reviewing arithmetical principles and computations designed to help the student's mathematical proficiency for selected curriculum entrance.

MTH 091-DEVELOPMENTAL ALGEBRA I AND II

MTH 092 (3T)

3 credits each

PREREQUISITE: A grade of "C" or better in MTH 090 or appropriate mathematics placement score. (Placement score will determine where student begins in sequence.)

This sequence of developmental courses provides the student with a review of arithmetic and algebraic skills designed to provide sufficient mathematical proficiency necessary for entry into Intermediate College Algebra.

MTH 098 ELEMENTARY ALGEBRA (4T)

4 credits

PREREQUISITE: A grade of "C" or better in MTH 090 (Basic Mathematics) or appropriate mathematics placement score

This course is a review of the fundamental arithmetic and algebra operations. The topics include the numbers of ordinary arithmetic and their properties; integers and rational numbers; the solving of equations; polynomials and factoring; and an introduction to systems of equations and graphs.

MTH 100 INTERMEDIATE COLLEGE ALGEBRA

(3T)

3 credits

PREREQUISITE: A grade of "C" or better in MTH 092 (Developmental Algebra II) or MTH 098 (Elementary Algebra) or appropriate mathematics placement score

This course provides a study of algebraic techniques such as linear equations and inequalities, quadratic equations, systems of equations, and operations with exponents and radicals. Functions and relations are introduced and graphed with special emphasis on linear and quadratic functions. This course does not apply toward the general core requirement for mathematics.

MTH 103 INTRODUCTION TO TECHNICAL MATHEMATICS (3T)

3 credits

PREREQUISITE: A grade of "C" or better in MTH 092 (Developmental Algebra II) or MTH 098 (Elementary Algebra) or appropriate mathematics placement score

This course is designed for the student in technology needing simple arithmetic, algebraic, and right triangle trigonometric skills.

MTH 104 PLANE TRIGONOMETRY (3T)

3 credits

PREREQUISITE: A grade of "C" or better in MTH 100 (Intermediate College Algebra)

This course emphasizes such topics as the solution of triangles, vectors, geometric concepts and complex numbers.

MTH 110 FINITE MATHEMATICS (3T)

3 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with a "C" or higher (S if taken as pass/fail) MTH 100 - Intermediate College Algebra

This course is intended to give an overview of topics in finite mathematics together with their applications, and is taken primarily by students who are not majoring in science, engineering, commerce or mathematics (i.e., students who are not required to take Calculus). This course will draw on and significantly enhance the student's arithmetic and algebraic skills. The course includes sets, counting, permutations, combinations, basic probability (including Bayes' Theorem), and introduction to statistics (including work with Binomial Distributions and Normal Distributions), matrices and their applications to Markov chains and decision theory. Additional topics may include symbolic logic, linear models, linear programming, the simplex method and applications.

MTH 112 PRECALCULUS ALGEBRA (3T)

3 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with a "C" or higher (S if taken as pass/fail) MTH 100- Intermediate College Algebra.

This course emphasizes the algebra of functions—including polynomial, rational, exponential, and logarithmic functions. The course also covers systems of equations and inequalities, quadratic inequalities, and the binomial theorem. Additional topics may include matrices, Cramer's Rule, and mathematical induction.

Course Descriptions

COURSE DESCRIPTIONS

MTH 113 PRECALCULUS TRIGONOMETRY

(3T)

3 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a "C" or higher (S if taken as a pass/fail) MTH 112-Precalculus Algebra

This course includes the study of trigonometric (circular functions) and inverse trigonometric functions, and includes extensive work with trigonometric identities and trigonometric equations. The course also covers vectors, complex numbers, DeMoivre's Theorem, and polar coordinates. Additional topics may include conic sections, sequences, and using matrices to solve linear systems.

MTH 115 PRECALCULUS ALGEBRA & TRIGONOMETRY (4T)

4 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II, with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a "C" or higher (S if taken as pass/fail) MTH 100 (Intermediate College Algebra) and receive permission from the academic division dean.

This course is a one-semester combination of Precalculus Algebra and Precalculus Trigonometry intended for superior students. The course covers the following topics: the algebra of functions (including polynomial, rational, exponential, and logarithmic functions), systems of equations and inequalities, quadratic inequalities, and the binomial theorem, as well as the study of trigonometric (circular functions) and inverse trigonometric functions, and includes extensive work with trigonometric identities and trigonometric equations, vectors, complex numbers, DeMoivre's Theorem, and polar coordinates.

MTH 116 MATHEMATICAL APPLICATIONS (3T)

3 credits

PREREQUISITE: MTH 090 (Basic Mathematics) or appropriate mathematics placement score

This course provides practical applications of mathematics and includes selected topics from consumer math and algebra. Some topics included are integers, percent, interest, ratio and proportion, metric system, probability, linear equations, and problem solving.

MTH 120 CALCULUS AND ITS APPLICATIONS (3T)

3 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a "C" or higher MTH 112-Precalculus Algebra.

This course is intended to give a broad overview of calculus and is taken primarily by students majoring in Commerce and Business Administration. It includes differentiation and integration of algebraic, exponential, and logarithmic functions and applications to business and economics. The course should include functions of several variables, partial derivatives (including applications), Lagrange Multipliers, L'Hopital's Rule, and multiple integration (including applications).

MTH 125 CALCULUS I (4T)

4 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a "C" or higher MTH 113 (Precalculus Trigonometry) or MTH 115 (Precalculus Algebra & Trigonometry).

This is the first of three courses in the basic calculus sequence taken primarily by students in science, engineering, and mathematics. Topics include the limit of a function; the derivative of algebraic, trigonometric, exponential, and logarithmic functions; and the definite integral and its basic applications to area problems. Applications of the derivative are covered in detail, including approximations of error using differentials, maximum and minimum problems, and curve sketching using calculus.

MTH 126 CALCULUS II (4T)

4 credits

PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a "C" or higher MTH 125 (Calculus I).

This is the second of three courses in the basic calculus sequence. Topics include vectors in the plane and in space, lines and planes in space, applications of integration (such as volume, arc length, work and average value), techniques of integration, infinite series, polar coordinates, and parametric equations.

MTH 227 CALCULUS III (4T)

4 credits

PREREQUISITE: A grade of "C" or better in MTH 126 (Calculus II)

This is the third of three courses in the basic calculus sequence. Topics include vector functions, functions of two or more variables, partial derivatives (including applications), quadratic surfaces, multiple integration, and vector calculus (including Green's Theorem, Curl and Divergence, surface integrals, and Stokes' Theorem).

MTH 231 MATHEMATICS FOR THE ELEMENTARY TEACHER I (3T)

3 credits

PREREQUISITE: MTH 090 (Basic Mathematics)

This course is designed to provide appropriate insights into mathematics for students majoring in elementary education and to ensure that students going into elementary education are more than proficient at performing basic arithmetic operations. Topics include logic, sets and functions, operations and properties of whole numbers and integers including number theory, and use of manipulatives by teachers to demonstrate abstract concepts and by students while learning these abstract concepts as emphasized in the class. Upon completion, students are required to demonstrate proficiency in each topic studied as well as to learn teaching techniques that are grade level and subject matter appropriate, and test for mathematical proficiency and the learning of teaching concepts.

MTH 232 MATHEMATICS FOR THE ELEMENTARY TEACHER II (3T)

3 credits

PREREQUISITE: MTH 231 (Mathematics for the Elementary Teacher I)

This course is the second of a three-course sequence and

is designed to provide appropriate insights into mathematics for students majoring in elementary education and to ensure that students going into elementary education are more than proficient at performing basic arithmetic operations. Topics include numeration skills with fractions, decimals and percentages, elementary concepts of probability and statistics, and analytic geometry concepts associated with linear equations and inequalities. The use of manipulatives and calculators in the teaching and learning process is stressed. Upon completion, students will test for mathematical proficiency and the learning of teaching concepts. Students also will demonstrate an appropriate teaching technique by preparing a lesson and teaching it to the class for their final exam grade.

MTH 237 LINEAR ALGEBRA (3T) 3 credits
PREREQUISITE: A grade of "C" or better in MTH 126 (Calculus II)

This course introduces the basic theory of linear equations and matrices, real vector spaces, bases and dimension, linear transformations and matrices, determinants, eigenvalues and eigenvectors, inner product spaces, and the diagonalization of symmetric matrices. Additional topics may include quadratic forms and the use of matrix methods to solve systems of linear differential equations.

MTH 238 APPLIED DIFFERENTIAL EQUATIONS I (3T) 3 credits
COREQUISITE: MTH 227 (Calculus III)

An introduction to numerical methods, qualitative behavior of first order differential equations, techniques for solving separable and linear equations analytically, and applications to various models (e.g. populations, motion, chemical mixtures, etc.); techniques for solving higher order linear differential equations with constant coefficients (general theory, undetermined coefficients, reduction of order and the method of variation of parameters), with emphasis on interpreting the behavior of solutions, and applications to physical models whose governing equations are of higher order; the Laplace transform as a tool for the solution of initial value problems whose inhomogeneous terms are discontinuous.

MTH 265 ELEMENTARY STATISTICS (3T) 3 credits
PREREQUISITE: MTH 100 (Intermediate College Algebra) or appropriate mathematics placement score

This course provides an introduction to methods of statistics, including the following topics: sampling, frequency distributions, measures of central tendency, graphic representation, reliability, hypothesis testing, confidence intervals, analysis, regression, estimation, and applications. Probability, permutations, combinations, binomial theorem, random variables, and distributions may be included.

MTH 270 PROBABILITY AND STATISTICS CONCEPTS (3T) 3 credits
COREQUISITE: MTH 126 (Calculus II)

This course provides an examination of the theory and applications of probability and statistics based on topics from calculus. It includes probability, sample spaces, random variables, probability distributions, estimation, confidence intervals, hypothesis testing, experimental analysis, moments and moment-generating functions, and computer-assisted data analysis using appropriate computer software.

MUSIC (MUL) (MUP) (MUS)

MUL 192-193A PIANO ENSEMBLE (2-4E) 1 credit
MUL 292-293A PREREQUISITE: Audition and Permission of instructor

This course provides an opportunity for students to participate in a performing ensemble. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Performances are assigned.

MUL 101-02 CLASS PIANO I, II (2E) 1 credit

These courses, to be taken in sequence, present fundamentals of keyboard technique for students with little or no previous training. Emphasis is placed on the rudiments of music, basic performance technique and general musicianship skills. Upon completion of one or a sequence of courses, students should be able to demonstrate a basic proficiency in playing and a knowledge of music fundamentals.

MUL 111-12 CLASS VOICE I, II, III, IV (2E) 1 credit

These courses must be taken in sequence. Emphasis is placed on fundamentals of correct breathing, tone production, and diction for students with little or no previous voice training. Literature appropriate for class level is studied. Upon completion of one or a sequence of courses, students should be able to demonstrate a basic proficiency in singing and a knowledge of music fundamentals. A minimum grade of "C" is required to progress to next level.

MUL 161-63 CLASS FRETTED INSTRUMENTS I, II, III (2E) 1 credit

These courses must be taken in sequence. These courses include basic techniques, chords, scales, fingering, rhythm, strumming, and playing simple melodies. They are designed for students with little or no previous training. Emphasis is placed on the rudiments of music, basic performance technique and general musicianship skills. Upon completion of one or a sequence of courses, students should be able to demonstrate a basic proficiency in playing and a knowledge of music fundamentals.

MUL 180-81 CHORALE (2-4E) 1-2 credits
MUL 280-81 PREREQUISITE: Permission of instructor

These courses are selected performing ensembles open to all students. Chorale is required for voice majors and minors. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Performances are assigned.

MUL 182-83 MADRIGAL SINGERS (2-4E) 1-2 credits
MUL 282-83 PREREQUISITE: Permission of instructor and audition

This course provides an opportunity for students to participate in a performing ensemble. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. This course is a select a cappella performing ensemble. Enrollment is limited. Performances are assigned.

Course Descriptions

COURSE DESCRIPTIONS

MUL 184-85 CONNECTION (2-4E) 1-2 credits
MUL 284-85 PREREQUISITE: Permission of instructor and audition

This course provides an opportunity for students to participate in a performing ensemble. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Upon completion, students should be able to effectively participate in performances presented by ensemble. Performances are assigned.

MUL 192-93B GUITAR ENSEMBLE (2-4E) 1-2 credits
MUL 292-93B PREREQUISITE: Permission of instructor

This course provides ensemble experience for guitar students in playing standard literature and arrangements and transcriptions for classical technique. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Performances are assigned. This course is open to all students and is required for guitar majors.

MUL 196-97 JAZZ BAND (2-4E) 1-2 credits
MUL 296-97 PREREQUISITE: Permission of instructor

This course provides an opportunity for students to participate in a performing ensemble. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Upon completion, students should be able to effectively participate in performances presented by the ensemble. Performances are assigned.

MUP 101 PIANO (2-4E) 1-2 credits
102, 201 PREREQUISITE: MUL 101, 102 or Permission of instructor
202

Individual study, minimum grade of "B" is required to progress to next level. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. Upon completion, students should be able to effectively perform assigned repertoire and technical studies in an appropriate performance evaluation setting. At the conclusion of the last semester of study, a sophomore recital is required.

MUP 103 ORGAN (2-4E) 1-2 credits
104, 203, Individual study, minimum grade of "B" is required
204 to progress to next level. Emphasis is placed on

developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. Upon completion, students should be able to effectively perform assigned repertoire and technical studies in an appropriate performance evaluation setting. At the conclusion of the last semester of study, a sophomore recital is required.

MUP 111 VOICE (2-4E) 1-2 credits
112, 211 PREREQUISITE: MUL 111
212 Individual instruction to include the study of standard

literature and technique. Emphasis is placed on

developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 133 134, 233 234

GUITAR (2-4E) 1-2 credits
PREREQUISITE: MUL 161, 162

Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. Minimum grade of "B" is required to progress to the next level.

MUP 141 142, 241 242

FLUTE (2-4E) 1-2 credits
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. Minimum grade of "B" is required to progress to the next level.

MUP 143 144, 243 244

CLARINET (2-4E) 1-2 credits
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 145 146, 245 246

CLARINET (2-4E) 1-2 credits
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 151 152, 251 252

OBOE (2-4E) 1-2 credits
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 153
154, 253,
254 **BASSOON (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 161
162, 261
262 **TRUMPET (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 163
164, 263
264 **FRENCH HORN (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 171
172, 271
272 **TROMBONE (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 173
174, 273
274 **EUPHONIUM (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUP 175
176, 275
276 **TUBA (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is

required. A minimum grade of "B" is required to progress to the next level.

MUP 181
182, 281
282 **PERCUSSION (2-4E)** **1-2 credits**
Individual instruction to include the study of standard literature and technique. Emphasis is placed on developing technique, repertoire and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. At the conclusion of the last semester, a sophomore recital is required. A minimum grade of "B" is required to progress to the next level.

MUS 101 **MUSIC APPRECIATION (3T)** **3 credits**
This course is designed for non-music majors and requires no previous musical experience. It is a survey course that incorporates several modes of instruction including lecture, guided listening, and similar experiences involving music. The course will cover a minimum of three (3) stylistic periods, provide a multi-cultural perspective, and include both vocal and instrumental genres. Upon completion, students should be able to demonstrate a knowledge of music fundamentals, the aesthetic/stylistic characteristics of historical periods, and an aural perception of style and structure in music. This course is offered in a tele-course, self-paced and lecture format.

MUS 103 **SURVEY OF POPULAR MUSIC (1-2T)** **1-2 credits**
This course provides a study of the origins, development and existing styles of popular music. Topics include ragtime, jazz, rhythm and blues, rock, country and western, folk and world music. Upon completion, students should be able to demonstrate a knowledge, understanding and an aural perception of the stylistic characteristics of popular music. This course is offered in a self-paced and lecture format.

MUS 110 **BASIC MUSICIANSHIP (3T)** **3 credits**
This course is designed to provide rudimentary music knowledge and skills for the student with a limited music background. Topics include a study of notation, rhythm, scales, keys, intervals, chords and basic sight singing and ear training skills. Upon completion, students should be able to read and understand musical scores and demonstrate basic sight singing and ear training skills for rhythm, melody and harmony. Required for music majors or acceptable score on placement test (75%).

MUS 111 **MUSIC THEORY I (3T)** **3 credits**
PREREQUISITE: Minimum grade of "C" in MUS 110 or acceptable score on placement test (75%)
COREQUISITE: MUS 113
This course introduces the student to the diatonic harmonic practices in the Common Practice Period. Topics include fundamental musical materials (rhythm, pitch, scales, intervals, diatonic harmonies) and an introduction to the principles of voice leading and harmonic progression. Upon completion, students should be able to demonstrate a basic competency using diatonic harmony through analysis, writ-

Course Descriptions

	ing, sight singing, dictation and keyboard skills. Open lab required. Spring; Decatur campus.		
MUS 112	MUSIC THEORY II (3T) 3 credits PREREQUISITE: Minimum grade of "C" in MUS 111 COREQUISITE: MUS 114 This course completes the study of diatonic harmonic practices in the Common Practice Period and introduces simple musical forms. Topics include principles of voice leading used in three- and four- part triadic harmony and diatonic seventh chords, non-chord tones, cadences, phrases and periods. Upon completion, students should be able to demonstrate competence using diatonic harmony through analysis, writing, sight singing, dictation and keyboard skills. Open lab required. Fall; Decatur campus.		
MUS 113	MUSIC THEORY LAB I (1E) 1 credit PREREQUISITE: MUS 110 or suitable placement score or permission of instructor COREQUISITE: MUS 111 This course provides the practical application of basic musical materials through sight singing; melodic, harmonic and rhythmic dictation; and keyboard harmony. Topics include intervals, simple triads, diatonic stepwise melodies, basic rhythmic patterns in simple and compound meter and four-part triadic progressions in root position. Upon completion, students should be able to write, sing and play intervals, scales, basic rhythmic patterns, diatonic stepwise melodies, simple triads and short four-part progressions in root position. Spring; Decatur campus.		
MUS 114	MUSIC THEORY LAB II (1E) 1 credit PREREQUISITE: MUS 113 COREQUISITE: MUS 112 This course continues the practical application of diatonic musical materials through sight singing; melodic, harmonic and rhythmic dictation; and keyboard harmony. Topics include intervals, scales, diatonic melodies with triadic arpeggiations, more complex rhythmic patterns in simple and compound meter and four-part diatonic progressions in all inversions. Upon completion, students should be able to write, sing and play all intervals, rhythmic patterns employing syncopations and beat divisions, diatonic melodies and four-part progressions. Fall; Decatur campus.		
MUS 211	MUSIC THEORY III (3T) 3 credits PREREQUISITE: Minimum grade of "C" in MUS 112 COREQUISITE: MUS 213 This course introduces the student to the chromatic harmonic practices in the Common Practice Period. Topics include secondary functions, modulatory techniques, and binary and ternary forms. Upon completion, students should be able to demonstrate competence using chromatic harmony through analysis, writing, sight singing, dictation and keyboard skills. Open lab required. Spring; Decatur campus.	MUS 213	MUSIC THEORY LAB III (1E) 1 credit PREREQUISITE: MUS 114 COREQUISITE: MUS 211 This course provides the practical application of chromatic musical materials through sight singing; melodic, harmonic and rhythmic dictation; and keyboard harmony. Topics include melodies with simple modulations, complex rhythms in simple and compound meter, and secondary function chords. Upon completion, students should be able to write, sing and play modulating melodies, rhythmic patterns with beat subdivisions and four-part chromatic harmony. Spring; Decatur campus.
		MUS 251	INTRODUCTION TO CONDUCTING (3T) 3 credits PREREQUISITE: MUS 110 or acceptable score on placement test (75%) This course introduces the fundamentals of conducting choral and/or instrumental ensembles. Topics include a study of simple and compound meters, score reading and techniques for conducting effective rehearsals. Upon completion, students should be able to prepare and conduct a choral and/or instrumental score in a rehearsal or performance setting.
		MUS 270	ORGANIZATION OF THE CHURCH MUSIC PROGRAM (2-3T) 2-3 credits PREREQUISITE: MUS 110 This course is designed to explore administrative models of a comprehensive church music program. Topics include leadership, administrative structure, music personnel, facilities, equipment, vestments, music library, budgeting, planning, vocal and instrumental ensembles and scheduling for a music program. Upon completion, students should be able to demonstrate how to plan, coordinate and administer a comprehensive church music program.
		MUS 271	CHURCH MUSIC LITERATURE (2-3T) 2-3 credits PREREQUISITE: MUS 110 This course provides an historic survey of traditional church music from the 17th century to the present and introduces contemporary Christian styles. Topics include criteria for choosing appropriate music for graded church choirs at easy, medium and advanced levels of difficulty, and a survey of publishing resources and cataloging systems. Upon completion, students should be able to demonstrate a knowledge and understanding of church music literature.
		MUS 272	THE CHILDREN'S CHOIR (2-3T) 2-3 credits This course is designed to provide techniques for working with the child's voice in a choral setting. Topics include working with children's voices, rehearsal techniques, selecting literature, vestments and organizing a graded choir program. Upon completion, students should be able to demonstrate how to plan, coordinate and administer a graded choir program in a church.

MUS 290 INTRODUCTION TO COMMERCIAL MUSIC (2-3T) 2-3 credits
This course provides an introduction to the commercial music industry and the types of careers in commercial music. Topics include music publishing, recording, contracts, agents and managers, copyrights, unions, music companies and dealers. Upon completion, students should be able to demonstrate a basic knowledge and understanding of the different components of the commercial music industry and the various career options.

MUS 291 MUSICAL ACOUSTICS (2-3T) 2-3 credits
PREREQUISITE: Permission of instructor
This course is designed to acquaint the student with the nature of musical acoustics and the science of sound. Topics include terminology, symbols, the nature and transmission of sound, vibration, frequency, pitch, intervals, harmonies, resonance, consonance and dissonance. Upon completion, students should be able to demonstrate an understanding of the basic skills and concepts through the successful presentation of an individual project in musical acoustics.

MUS 292 SONG WRITING (3T) 3 credits
PREREQUISITE: As required by program
This course provides an introduction to song writing and marketing techniques. Topics include lyric writing, song structures, preparing a lead sheet, notation, rhythmic and melodic dictation, key signatures, basic chord structures, recording, basic copyright laws and publishing. Upon completion, students should be able to compose a song, prepare a lead sheet and demo tape, apply for a copyright and market a song.

MUSIC INDUSTRY COMMUNICATIONS (MIC)

MIC 100 INTRODUCTION TO MASS COMMUNICATIONS 3 credits
This course provides the student with general study of mass communications and journalism. This course includes theory, development, regulation, operation, and effects upon society. Upon completion of this class, students should be able to decide which field of mass communications on which to focus.

MIC 153 INTRODUCTION TO RECORDING TECHNOLOGY (3T) 3 credits
This course is designed to acquaint the student with basic recording fundamentals. Emphasis is placed on microphone techniques, recording principals, musician and recording engineers' code. Upon completion, students should be able to do basic analog recordings.

MIC 201 PUBLISHING FOR THE RECORDING INDUSTRY (3T) 3 credits
This course is an introduction to the operation and functions of publishing in the recording industry.

MIC 250 MASS COMMUNICATIONS PRACTICUM (3T) 3 credits
PREREQUISITE: MIC 153 or instructor approval

This course provides practical experience in media through supervised part- or full-time employment with a newspaper, radio or television station, recording studio, or public relations/advertising agency. Upon completion, students should be able to receive employment based on demonstration of their skills in their subject area.

MIC 251 RECORDING STUDIO PRODUCTION (3T) 3 credits
PREREQUISITE: MIC 153 or instructor approval
This course is designed to acquaint the student with the functional roles of the commercial recording studio. Emphasis will be placed on studio production projects, and include a study of contracts, managers, agents, recording rights, copyright laws, unions, publishers, and music companies. Upon completion, students should be able to produce studio quality recordings and have an understanding of the music industry.

MIC 253 COMPUTER LITERACY FOR THE MUSICIAN I (3T) 3 credits
This course is designed to teach musicians how to use computers for music writing, ear training, theory, and sequencing. Topics include an introduction to MIDI, sequencing, Master Tracks Pro, Studio 3.1 and 4.0, Cakewalk and Musicator. Upon completion, students should have an understanding of MIDI, Charting and Sequencing on the computer.

MIC 254 COMPUTER LITERACY FOR THE MUSICIAN II (3T) 3 credits
PREREQUISITE: MIC 253 or instructor approval
This course is designed to teach advanced computer sequencing techniques. Emphasis is placed on projects and the use of computer sequencing software and hardware. Students should be able to sequence and perform advanced editing using MIDI.

MIC 255 DIGITAL RECORDING (3T) 3 credits
PREREQUISITE: MIC 253 or instructor approval
This course is designed to teach Digital Recording using hard disk wave recording techniques. Emphasis is placed on projects and the use of Digital Recording software and hardware. Upon completion, students should be able to do recordings on the "Special Audio Engine" and other software with masters of digital quality.

MIC 293 MUSIC NOTATION (3T) 3 credits
PREREQUISITE: MIC 253 or instructor approval
This course is designed to teach students the music program for charting and writing music. Emphasis will be placed on the use of the software program "FINALE". Upon completion, students should be able to chart and write music using industry standards.

NURSING ASSISTANT (NAS)

NAS 100 FUNDAMENTALS OF LONG TERM CARE (3T, 3C) 4 credits
This course fulfills the seventy-five (75) hour Omnibus Budget Reconciliation Act (OBRA) requirements for training of long-term care nursing assistants in preparation for cer-

Course Descriptions

tification through competency evaluation. Emphasis is placed on the development of the knowledge, attitudes, and skills required of the long-term care nursing assistant. Upon completion of this course, the student should demonstrate satisfactory performance on written examinations and clinical skills.

NURSING (ADN/LPN)

NUR 102 FUNDAMENTALS OF NURSING (3T, 6S/3C)

6 credits

PREREQUISITE: As required by program

This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students learn concepts and theories basic to the art and science of nursing. The role of the nurse as a member of the healthcare team is emphasized. Students are introduced to the concepts of client needs, safety, communication, teaching/learning, critical thinking, ethical-legal, cultural diversity, nursing history, and the program's philosophy of nursing. Additionally, this course introduces psychomotor nursing skills needed to assist individuals in meeting basic human needs. Skills necessary for maintaining microbial, physical, and psychological safety are introduced along with skills needed in therapeutic interventions. At the conclusion of this course, students demonstrate competency in performing basic nursing skills for individuals with common health alterations.

NUR 103 HEALTH ASSESSMENT (3S)

1 credit

PREREQUISITE: As required by program

This course is designed to provide students the opportunity to learn and practice history taking and physical examination skills with individuals of all ages, with emphasis on the adult. The focus is on symptom analysis along with physical, psychosocial, and growth and development assessments. Students will be able to utilize critical thinking skills in identifying health alterations, formulating nursing diagnoses and documenting findings appropriate to nursing.

NUR 104 INTRODUCTION TO PHARMACOLOGY (3S)

1 credit

PREREQUISITE: As required by program

This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. This course introduces students to basic principles of pharmacology and the knowledge necessary to safely administer medication. Course content includes legal implications, pharmacokinetics, pharmacodynamics, calculations of drug dosages, medication administration, and an overview of drug classifications. Students will be able to calculate and administer medications.

NUR 105 ADULT NURSING (5T, 3S/6C)

8 credits

PREREQUISITE: As required by program

This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Emphasis is placed on providing care to individuals undergoing surgery, fluid and electrolyte imbal-

ance, and common alterations in respiratory, musculoskeletal, gastrointestinal, cardiovascular, endocrine. Nutrition, pharmacology, communication, cultural, and community concepts are integrated.

NUR 106 MATERNAL AND CHILD NURSING (4T, 3C)

5 credits

PREREQUISITE: As required by program

This course focuses on the role of the nurse in meeting the physiological, psychosocial, cultural and developmental needs of the maternal and child client. Course content includes antepartal, intrapartal, and postpartal care, complications of pregnancy, newborn care, human growth and development, pediatric care, and selected pediatric alterations. Nutrition, pharmacology, cultural diversity, use of technology, communication, anatomy and physiology review, medical terminology, critical thinking, and application of the nursing process are integrated throughout this course. Upon completion of this course, students will be able to provide and manage care for maternal and pediatric clients in a variety of settings.

NUR 107 ADULT/CHILD NURSING (5T, 9C)

8 credits

PREREQUISITE: As required by program

This course provides students with opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process in a variety of settings. Emphasis is placed on providing care to individuals experiencing complex alterations in: sensory/perceptual, reproductive, endocrine, genitourinary, neurological, immune, cardiovascular, and lower gastrointestinal systems. Additional instruction is provided for care for clients experiencing burns, cancer, and emergent conditions. Nutrition, pharmacology, therapeutic communication, community, cultural diversity, health promotion, error prevention, critical thinking, impacts on maternal and child clients are integrated throughout the course.

NUR 108 PSYCHOSOCIAL NURSING (2T, 3C)

3 credits

PREREQUISITE: As required by program

This course is designed to provide an overview of psychosocial adaptation and coping concepts used when caring for clients with acute and chronic alterations in mental health in a variety of settings. Topics include therapeutic communication skills, normal and abnormal behaviors, treatment modalities, and developmental needs. Upon completion of this course, students will demonstrate the ability to assist clients in maintaining psychosocial integrity through the use of the nursing process.

NUR 109 ROLE TRANSITION FOR THE PRACTICAL NURSE (2T, 3S)

3 credits

PREREQUISITE: As required by program

This course provides students with opportunities to gain knowledge and skills necessary to transition from student to practicing nurse. Content includes a discussion of current issues in health care, practical nursing leadership and management, professional practice issues, and transition into the workplace. Emphasis is placed on NCLEX-PN test-taking skills, computer-assisted simulations and practice tests, development of a prescriptive plan for remediation,

and review of selective content, specific to the practice of practical nursing.

**NUR 200 NURSING CAREER MOBILITY
ASSESSMENT (3T, 9S)**

6 credits

This course is designed to provide LPN mobility students self-directed opportunities to prepare for placement into the third semester of the ADN program. Emphasis is on assessment and validation of selected theory, process, and skills covered in NUR 102, 103, 104, 105, and 106. Upon successful completion of assessments, students are eligible for entry into NUR 201. Students who successfully complete this course are awarded 15 non-traditional hours at the completion of the LPN mobility curriculum.

**NUR 201 NURSING THROUGH THE LIFESPAN
(3T, 6C)**

5 credits

PREREQUISITE: As required by program

This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students manage and provide collaborative care to clients who are experiencing selected alterations in gastrointestinal, reproductive, sensory, and endocrine systems in a variety of settings. Additional instruction is provided for oncology, mental health, teaching/learning concepts, and advanced dosage calculations, nutrition, pharmacology, communication, cultural, and community concepts are integrated.

**NUR 202 NURSING THROUGH THE LIFESPAN II
(3T, 9C)**

6 credits

PREREQUISITE: As required by program

This course builds upon previous instruction and provides additional opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students manage and provide collaborative care to clients who are experiencing selected alterations in cardiovascular, hematologic, immune, and genitourinary systems in a variety of settings. Additional instruction is provided for psychiatric disorders and high-risk obstetrics. Teaching/learning concepts, advanced dosage calculations, nutrition, pharmacology, communication, cultural, and community concepts are integrated.

**NUR 203 NURSING THROUGH THE LIFESPAN III
(4T, 6C)**

6 credits

PREREQUISITE: As required by program

This course builds upon previous instruction and provides additional opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students manage and provide collaborative care to clients who are experiencing selected alterations in cardiovascular, respiratory, and neurological systems in a variety of settings. Additional instruction is provided in care for selected mental health disorders, selected emergencies, multiple organ dysfunction syndrome and related disorders. Teaching/learning concepts, advanced dosage calculations, nutrition, pharmacology, communication, cultural, and community concepts are integrated.

**NUR 204 ROLE TRANSITION FOR THE
REGISTERED NURSE
(2T, 6C)**

4 credits

PREREQUISITE: As required by program

This course provides students with opportunities to gain knowledge and skills necessary to transition from student to registered nurse. Content includes current issues in health care, nursing leadership and management, professional practice issues for registered nurses, and transition into the workplace. Additional instruction is provided for preparing for the NCLEX-RN.

ORIENTATION (ORI)

**ORI 101 ORIENTATION TO COLLEGE
(1)**

1 credit

This course aids new students in their transition to the institution; exposes new students to the broad educational opportunities of the institution; and integrates new students into the life of the institution.

**ORI 103 ORIENTATION (STUDY SKILLS)
(2T)**

2 credits

This course helps students develop practical knowledge and skills toward a successful college experience, both academically and personally. Topics include time management, reading, memory, notes, tests, diversity, thinking, writing, relationships, health, and career planning.

PHYSICAL EDUCATION (PED)

PED 100 FUNDAMENTALS OF FITNESS (3T)

3 credits

This lecture course includes the basic principles of physical education and physical fitness. It explores psychological and physiological effects of exercise and physical fitness, including effects on the human skeleton, muscle development, respiration and coordination. It is reviewed as an introduction to such laboratory courses as slimnastics, weight training, and conditioning. This course may also include fitness evaluation, development of individual fitness programs, and participation in fitness activities.

PED 101 SLIMNASTICS (Beginning) (2A)

1 credit

This course provides an individualized approach to physical fitness, wellness, and other health-related factors. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program.

PED 102 SLIMNASTICS (Intermediate) (2A)

1 credit

This course is an intermediate-level class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems, nutrition, and weight control. Upon completion, students should be able to implement and evaluate an individualized physical fitness program. This is an individual and dual sport activity.

PED 103 WEIGHT TRAINING (Beginning) (2A)

1 credit

This course introduces the basics of weight training.

Course Descriptions

Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight-training program. This is an individual and dual sport activity.

PED 104 WEIGHT TRAINING (Intermediate) (2A)

1 credit

This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight-training program. This is an individual and dual sport activity.

PED 105 PERSONAL FITNESS (2A)

1 credit

This course is designed to provide the student with information allowing him/her to participate in a personally developed fitness program. Topics include cardiovascular, strength, muscular endurance, flexibility and body composition.

PED 106 AEROBICS (2A)

1 credit

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.

PED 107 AEROBICS DANCE (Beginning) (2A)

1 credit

PREREQUISITE: PED 106 or Permission of instructor

This course introduces the fundamentals of step and dance aerobics. Emphasis is placed on basic stepping up, basic choreographed dance patterns, cardiovascular fitness, and upper body, floor, and abdominal exercises. Upon completion, students should be able to participate in basic dance aerobics. This is a rhythmic activity.

PED 108 AEROBICS DANCE (INTERMEDIATE) (2A)

1 credit

PREREQUISITE: PED 107 or Permission of instructor

This course provides a continuation of step aerobics. Emphasis is placed on a wide variety of choreographed step and dance patterns; cardiovascular fitness; and upper body, abdominal, and floor exercises. Upon completion, students should be able to participate in and design an aerobics routine. This is a rhythmic activity.

PED 109 JOGGING (2A)

1 credit

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities.

PED 118 GENERAL CONDITIONING (Beginning) (2A)

1 credit

This course provides an individualized approach to general conditioning utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness and conditioning programs. Upon completion, students should be able to set up and implement an individualized physical fitness and conditioning program.

PED 119 GENERAL CONDITIONING

(Intermediate) (2A)

1 credit

PREREQUISITE: PED 118 or Permission of instructor

This course is an intermediate-level fitness and conditioning program class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness and conditioning program.

PED 120 TECHNIQUES OF DUAL AND INDIVIDUAL SPORTS (2T)

2 credits

This course introduces the fundamentals of popular dual and individual sports. Emphasis is placed on rules, equipment, and motor skills used in various sports. Upon completion, students should be able to demonstrate knowledge of the sports covered. This is an individual and dual sport activity.

PED 121 BOWLING (Beginning) (2A)

1 credit

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This is an individual and dual sport activity.

PED 122 BOWLING (Intermediate) (2A)

1 credit

PREREQUISITE: PED 121 or Permission of instructor

This course covers more advanced bowling techniques. Emphasis is placed on refining basic skills and performing advanced shots, spins, pace, and strategy. Upon completion, students should be able to participate in competitive bowling. This is an individual and dual sport activity.

PED 123 GOLF (Beginning) (2A)

1 credit

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This is an individual and dual sport activity.

PED 124 GOLF (Intermediate) (2A)

1 credit

PREREQUISITE: PED 123 or Permission of instructor

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the game such as a club selection, trouble shots, and course management. Upon completion, students should be able to demonstrate the knowledge and ability to play a recreational round of golf. This is an individual and dual sport activity.

PED 126 RECREATIONAL GAMES (2A)

1 credit

This course is designed to give an overview of a variety of recreational games and activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime recreational games. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime recreational activities. This is a rhythm activity.

PED 127 ARCHERY (2A)

1 credit

This course introduces basic archery safety and skills.

Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery. This is an individual and dual sport activity.

PED 131 BADMINTON (Beginning) (2A) 1 credit

This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations. This is an individual and dual sport activity.

PED 133 TENNIS (Beginning) (2A) 1 credit

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This is an individual and dual sport activity.

PED 134 TENNIS (Intermediate) (2A) 1 credit
PREREQUISITE: PED 133 or Permission of instructor

This course emphasizes the refinement of playing skills. Topics include the development of fundamentals, learning advanced serves, strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. This is an individual and dual sport activity.

PED 140 SWIMMING (BEGINNING) (2A) 1 credit

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards.

PED 141 SWIMMING (INTERMEDIATE) (2A) 1 credit
PREREQUISITE: PED 140 or Permission of instructor

This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissor kick, the underwater swim, and other related skills.

PED 142 SWIMMING (ADVANCED) (2A) 1 credit
PREREQUISITE: PED 141 or Permission of instructor

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

PED 143 AQUATIC EXERCISE (2A) 1 credit

This course introduces rhythmic aerobic activities and aquatic exercises performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually paced exercise program.

PED 150 TAI CHI (2A) 1 credit

Tai Chi is an ancient martial art form through which the student will improve flexibility, balance, strength, and mental discipline. By learning the slow and elaborate movements of Tai Chi, the student will develop proper breathing and relaxation techniques and enhance joint flexibility. Tai Chi skills are a combination of stretching, isometrics, and isotonic movements in combination with diaphragmatic breathing and postural maintenance.

PED 151 JUDO (BEGINNING) (2A) 1 credit

This course introduces the basic discipline of judo. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of judo.

PED 153 KARATE (BEGINNING) (2A) 1 credit

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

PED 155 SELF-DEFENSE (2A) 1 credit

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature.

PED 160 SOCIAL DANCE (2A) 1 credit

This course introduces the fundamentals of popular social dance. Emphasis is placed on basic social dance techniques, dances, and a brief history of social dance. Upon completion, students should be able to demonstrate specific dance skills and perform some dances. This is a rhythmic activity.

PED 163 SQUARE DANCING (2A) 1 credit

This course introduces the terminology and skills necessary to perform square dancing. Topics include working from squared sets-squared circles to squared throughs, right and left throughs, and Dixie Chains. Upon completion, students should be able to perform square dance routines and recognize the calls made for all formations. This is a rhythmic activity.

PED 171 BASKETBALL (Beginning) (2A) 1 credit

This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This is a team sport activity.

PED 172 BASKETBALL (2A) 1 credit
PREREQUISITE: PED 171 or Permission of instructor

This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level. This is a team sport activity.

Course Descriptions

PED 176 VOLLEYBALL (Beginning) (2A) **1 credit**
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball. This is a team sport activity.

PED 177 VOLLEYBALL (Intermediate) (2A) **1 credit**
PREREQUISITE: PED 176 or Permission of instructor
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball. This is a team sport activity.

PED 181 BASEBALL (Beginning) (2A) **1 credit**
This course covers the fundamentals of baseball. Emphasis is placed on skill development, knowledge of the rules and basic game strategy. Upon completion, students should be able to participate in recreational baseball. This is a team sport activity.

PED 182 BASEBALL (Intermediate) (2A) **1 credit**
This course covers more advanced baseball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play baseball at a competitive level. This is a team sport activity.

PED 186 SOFTBALL (Beginning) (2A) **1 credit**
This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in recreational softball. This is a team sport activity.

PED 187 SOFTBALL (Intermediate) (2A) **1 credit**
This course presents advanced skills and competitive practice in softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in competitive softball. This is a team sport activity.

PED 188 YOGA (2A) **1 credit**
This course introduces basic instruction in yoga for beginners. Emphasis is placed on instruction in gentle stretching, breathing practices, progressive deep relaxation, and posture. Upon completion, students should be able to participate in and appreciate the benefits of the activity. This is a rhythm activity.

PED 191 TEAM SPORTS (2A) **1 credit**
This course covers the basic concepts involved in team sport competition. Emphasis will be placed on refining basic skills, rules and regulations, officiating, and team play. Upon completion, students should be able to participate and implement an intramural program. This is a team sport activity.

PED 200 FOUNDATIONS OF PHYSICAL EDUCATION (3T) **3 credits**
In this course, the history, philosophy, and objectives of

health, physical education, and recreation are studied with emphasis on the physiological, sociological, and psychological values of physical education. It is required of all physical education majors.

PED 216 SPORTS OFFICIATING (3T) **3 credits**
This course surveys the basic rules and mechanics of officiating a variety of sports, including both team and individual sports. In addition to classwork, students will receive at least 3 hours of practical experience in officiating.

PED 226 HIKING (2A) **1 credit**
This course provides instruction on how to equip and care for one's self on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes.

PED 227 ANGLING (2A) **1 credit**
This course introduces the sport of angling. Emphasis is placed on fishing with the use of artificial lures. Upon completion, students should be able to cast and retrieve using baitcaster and spinning reels and identify the various types of artificial lures. This is an individual and dual sport activity.

PED 236 CANOEING (2A) **1 credit**
This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills.

PED 245 CYCLING (2A) **1 credit**
This course is designed to promote physical fitness through cycling. Emphasis is placed on selection and maintenance of the bicycle gear shifting, pedaling techniques, safety procedures, and conditioning exercises necessary for cycling. Upon completion, students should be able to demonstrate safe handling of a bicycle for recreational use. This is an individual and dual sport activity.

PED 246 CAMPING (2A) **1 credit**
This course is designed to acquaint the beginning camper with outdoor skills. Topics include camping techniques such as cooking and preserving food, safety, and setting up camp. Upon completion, students should be able to set up camp sites in field experiences using proper procedures. This is an individual and dual sport activity.

PED 251 VARSITY BASKETBALL (2A) **1 credit**
PREREQUISITE: Permission of instructor
This course covers advanced fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules and basic game strategy. Upon completion, students should be able to participate in competitive basketball. This is a team sport activity.

PED 252 VARSITY BASEBALL (2A) **1 credit**
PREREQUISITE: Permission of instructor
This course covers advanced baseball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion,

students should be able to play baseball at a competitive level. This is a team sport activity.

recording equipment, projected images and multimedia hardware and software is included. Students will produce finished multimedia pieces.

PED 254 VARSITY SOFTBALL (2A) 1 credit

PREREQUISITE: Permission of instructor

This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to play competitive softball. This is a team sport activity.

PED 257 VARSITY CHEERLEADING (2A) 1 credit

PREREQUISITE: Permission of instructor

This course covers advanced co-ed cheerleading techniques. Emphasis is placed on refining skills and improving all areas related to co-ed cheerleading including: knowledge of safety techniques, partner stunts, tumbling, basket tosses, pyramids, motions, physical conditioning, and mental preparation. Upon completion of this program, Students should be able to participate in a competitive program at the university level. This is a team sport activity.

PHOTOGRAPHY AND FILM (PFC)

Also see ART

PFC 173 PHOTOGRAPHY I (2T, 2E) 3 credits

This course is an introduction to photography. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, students will be able to produce well composed photographs.

PFC 174 PHOTOGRAPHY II (2T, 2E) 3 credits

PREREQUISITE: Permission of instructor

This is a sequence to Photography I and serves as an introductory photography course. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student will be able to produce well composed photographs.

PFC 176 FILMMAKING (6E) 3 credits

This course provides a knowledge of the basics of filmmaking. Emphasis is placed on procedure, equipment, editing and sound. Upon completion, students should demonstrate a basic knowledge of filmmaking through critical analysis and film projects.

PFC 177 COLOR PHOTOGRAPHY (2T, 2E) 3 credits

PREREQUISITE: ART 173 or ART 176 or Permission of instructor

This course covers the primary materials and processes of color photography. Emphasis is placed on the correct exposure, processing, creative color usage, and printing of both positive/negative color materials through exploration of films, filters, processes, and color temperature. Upon completion, students should be able to correctly execute the technical controls of color materials and explore the creative possibilities of color photography.

PFC 178 AUDIO-VISUAL TECHNIQUES (1T, 2E) 2 credits

This course is an exploration of the area of linkage between the visual and auditory senses. Work with sound and

PFC 187 PHOTOGRAPHY, FILM, AND MEDIA I (1T, 2E) 2 credits

PREREQUISITE: ART 173 or PFC 177 or Permission of instructor

This course is designed to help the student explore creative approaches to photography, film, and related media. Problems in darkroom techniques, laboratory techniques, and special effects are included. Upon completion, the student should be able to apply these techniques to professional quality finished pieces.

PFC 188 PHOTOGRAPHY, FILM, AND MEDIA II (1T, 2E) 2 credits

PREREQUISITE: PFC 187 or Permission of instructor

This course is designed to help the student explore creative approaches to photography, film, and related media in greater depth. Problems in darkroom techniques, laboratory techniques, and special effects are included. Upon completion, the student should be able to apply these techniques to professional quality finished pieces.

PFC 258 PHOTOGRAPHIC AND MEDIA PROBLEMS (1T, 2E) 2 credits

This course deals with special problems in the student's area of interest. Emphasis is placed on design, technique and results. Upon completion, the student will be able to produce professional quality photographs in one particular area of photography.

PFC 273 STUDIO PHOTOGRAPHY I (2T, 2E) 3 credits

This course stresses image-making problems requiring studio or other controlled environment solutions. Lights, props, and related equipment and techniques are utilized. The student will produce quality photographs using studio techniques.

PFC 274 STUDIO PHOTOGRAPHY II (2T, 2E) 3 credits

PREREQUISITE: PFC 273 or Permission of instructor

This course deals with advanced problems requiring studio or other controlled environment solutions. Lights, props, and related equipment and techniques are utilized. The student will produce quality photographs using studio techniques.

PFC 276 FILMMAKING II (2T, 2E) 3 credits

PREREQUISITE: PFC 176 or Permission of instructor

This course is a continuation of the study of film production. Emphasis is on various aspects of filmmaking which may include design, special effects, digital and linear production techniques, and machine control. Upon completion, students should have hands-on experience and an understanding of professional filmmaking.

PFC 277 FILMMAKING III (2T, 2E) 3 credits

PREREQUISITE: PFC 276 or Permission of instructor

This course is a continuation of the study of film production. Emphasis is on various aspects of filmmaking which may include design, special effects, digital and linear production techniques, and machine control. Upon completion,

Course Descriptions

tion, students should have hands-on experience and an understanding of professional filmmaking.

students who do not intend to major in science or engineering. Laboratory is required.

PHILOSOPHY (PHL)

PHL 106 INTRODUCTION TO PHILOSOPHY (3T) 3 credits

This course is an introduction to the basic concepts of philosophy. The literary and conceptual approach of the course is balanced with emphasis on approaches to ethical decision making. The student should have an understanding of major philosophical ideas in an historical survey from the early Greeks to the modern era.

PHL 116 LOGIC (3T) 3 credits

This course is designed to help students assess information and arguments. The focus of the course is on logic and reasoning. The student should be able to understand how inferences are drawn, be able to recognize ambiguities and logical and illogical reasoning.

PHL 206 ETHICS AND SOCIETY (3T) 3 credits

This course involves the study of ethical issues which confront individuals in the course of their daily lives. The focus is on the fundamental questions of right and wrong, of human rights, and of conflicting obligations. The student should be able to understand and be prepared to make decisions in life regarding ethical issues.

PHL 210 ETHICS AND THE HEALTH SCIENCES (3T) 3 credits

This course is a study of ethical issues related to the health sciences such as contraception, abortion, and eugenics; human experimentation; truth in drugs and medicine; death and dying; and other health-related issues. The student should be able to clarify relevant ethical considerations and have a philosophical basis for decisions on right and wrong, good and bad, rights and responsibilities.

PHYSICAL GEOGRAPHY (GEO)

(Courses qualify as Natural Science electives)

GEO 101 PRINCIPLES OF PHYSICAL GEOGRAPHY I (3T, 2E) 4 credits

Physical Geography I is the first in a two-part sequence including topics such as weather and climate relative to the earth and relationships between the earth and sun. Laboratory is required.

GEO 102 PRINCIPLES OF PHYSICAL GEOGRAPHY II (3T, 2E) 4 credits

Physical Geography II is the second in a two-part sequence including topics such as landforms, landscapes, soil and vegetation of the earth. Laboratory is required.

PHYSICAL SCIENCE (PHS)

PHS 111 PHYSICAL SCIENCE (3T, 2E) 4 credits

This course provides an introduction to the basic principles of geology, oceanography, meteorology, and astronomy for

PHS 112 PHYSICAL SCIENCE II (3T, 2E) 4 credits PREREQUISITE: MTH 098 Elementary Algebra

This course provides an introduction to the principles of chemistry and physics for students who do not intend to major in science or engineering. Laboratory is required.

PHS 120 ENVIRONMENTAL SCIENCE (3T, 2E) 4 credits

PHS 120 is an interdisciplinary course intended for non-science majors who desire an introduction to environmental science. The environment will be studied with an emphasis on such topics as air, soil, water, wildlife, forestry, and solid waste pollution. Laboratory will include both field studies and experimentation.

PHS 121 APPLIED PHYSICAL SCIENCE I (3T, 2E) 4 credits

PREREQUISITE: As required by program
(Course taught in Spring Semester of odd numbered years only)

This course introduces the general principles of physics and chemistry. Topics include measurement, motion, Newton's laws of motion, momentum, energy, work, power, heat, thermodynamics, waves, sound, light, electricity, magnetism, and chemical principles. Upon completion, students should be able to demonstrate an understanding of the physical environment and be able to apply the scientific principles to observations experienced. Laboratory is required.

PHS 230 INTRODUCTION TO METEOROLOGY (3T, 2E) 4 credits

This course is an introductory survey of meteorology emphasizing the hydrologic cycle, cloud formation, weather maps, forecasting, and wind systems. Local weather systems will be given detailed study. Laboratory is required.

PHYSICAL THERAPY

PTA 100 INTRODUCTION TO PHYSICAL THERAPY 2(T) 2 credits

This course is an introduction to the field of physical therapy as a career choice. Emphasis is on the role of the PT and PTA, educational requirements, scope of practice and subspecialty areas such as pediatrics, geriatrics, and sports. Upon completion of the course, the student should have a general understanding of the role of physical therapy in the health care environment.

PTA 180 MEDICAL TERMINOLOGY (1T) 1 credit

This course is an introduction to the language of medicine with emphasis on its use in physical therapy. Emphasis is on terminology of anatomical systems, root forms, prefixes and suffixes, surgery, symptomatology, psychiatric terms, pharmaceutical terms, anesthetic terms, and abbreviation. Upon completion, the student should be able to recognize this terminology as it is used in physical therapy.

PTA 200 PHYSICAL THERAPY ISSUES AND TRENDS

(2T)

2 credits

This is an introductory course to the trends and issues in physical therapy. Emphasis is placed on areas such as history, practice issues, psychosocial aspects of illness and cultural diversity. Upon completion, the student should be able to discuss trends and issues relevant to physical therapy.

PTA 201 PHYSICAL THERAPY ASSISTANT SEMINAR

(2T)

2 credits

PREREQUISITE: PTA 200

This course is a continuing study of issues and trends in physical therapy practice. Emphasis is placed on issues such as licensure, job skills, board exam review, practitioner roles, legal and ethical issues. Upon completion, the student should have acquired necessary skills for transition from student to practitioner.

PTA 202 PTA COMMUNICATION SKILLS

(2T)

2 credits

This course is the study of verbal and nonverbal communication and documentation in health care. Emphasis will be placed on terminology, format, computer usage, reimbursement, interpersonal communication, and legal issues. Upon completion, student should be able to discuss and demonstrate communication methods for achieving effective interaction with patients, families, the public and other health care providers.

PTA 204 PTA FORUM I (1T)

1 credit

This course consists of independent visits to relevant clinical and related sites and activities. Students observe and assist with sports and recreational activities and visit specialized clinical sites. By the end of the course, the student should have broad exposure to activities in which physically challenged persons participate and specialized clinical areas.

PTA 205 PTA FORUM II (1T)

1 credit

This course consists of independent visits to relevant clinical and related sites and activities. Students observe and assist with sports and recreational activities and visit specialized clinical sites. By the end of the course, the student should have broad exposure to activities in which physically challenged persons participate and specialized clinical areas.

PTA 210 INTRODUCTION TO PHYSICAL THERAPY CLINIC (5P5)

1 credit

This clinical course is designed to introduce the student to the practice of physical therapy in the clinical setting. Emphasis is on student observation of techniques in the clinic that have been taught in the classroom and will entail on-going communication between the clinical instructor, student and course coordinator. Upon completion of the course, the student should be able to demonstrate practical application of basic physical therapy assistant skills.

PTA 215 INTRODUCTION TO BASIC PATIENT CARE (2T)

2 credits

This course is designed to introduce the student to basic patient care techniques as they relate to the practice of

physical therapy. Emphasis is on vital signs, body mechanics, gait and transfer techniques, and draping and positioning used in basic treatment procedures. Upon completion of the course, the student should be able to discuss proper methods of performing the above techniques.

PTA 220 FUNCTIONAL ANATOMY AND KINESIOLOGY (3T)

3 credits

This course provides an in-depth, clinically oriented study of functional anatomy. Emphasis is placed on the musculoskeletal system, nervous system, and study of human movement. Upon completion of the course, the student should be able to identify specific anatomical structures and analyze human movements.

PTA 221 KINESIOLOGY LAB (3S)

1 credit

This laboratory course allows for a hands on appreciation of functional anatomy and kinesiology. Emphasis may include muscle and joint function, ROM/strength testing, palpation skills and exercise concepts. Upon completion, the student should be able to integrate content areas into an understanding of normal gait posture and movement patterns.

PTA 222 FUNCTIONAL ANATOMY AND KINESIOLOGY LAB (6S)

2 credits

This laboratory course allows for a hands on appreciation of anatomical structures and kinesiological concepts as they relate to therapeutic exercise. Emphasis may include muscle and joint function, testing applications and therapeutic exercise. Upon completion, the student should be able to integrate content areas into an understanding of normal human movement.

PTA 230 NEUROSCIENCE (2T)

2 credits

This course provides students with an overview of the neuroanatomy of the CNS and PNS, as it relates to treatment necessary for patients with dysfunctions of these systems. Emphasis includes the structure and function of the nervous system, neurophysiological concepts, human growth and development, neurologic dysfunctions. Upon completion of this course, the student should be able to identify and discuss specific anatomical structures, functions of the nervous system, basic concepts of human growth and development and identify neurologic pathologies.

PTA 231 REHABILITATION TECHNIQUES (6S)

2 credits

This course allows for hands on appreciation of advanced rehabilitation techniques. Emphasis is on orthopedic and neurologic treatment techniques, therapeutic exercise procedures and analysis and treatment of pathologic gait. Upon completion, the student should be able to demonstrate an understanding of advanced rehabilitation techniques appropriate to orthopedic and neurologic dysfunctions.

PTA 232 ORTHOPEDICS FOR THE PTA (2T)

2 credits

This course provides the student with an overview of orthopedic conditions seen in physical therapy. Emphasis is on the study of orthopedic conditions and appropriate physical therapy intervention and a review of related anatomical structures. Upon completion of the course, the student should be able to discuss PT interventions for common orthopedic conditions.

Course Descriptions

- PTA 240 PHYSICAL DISABILITIES I (2T)** **2 credits**
This course presents the student with a body systems approach to the etiology, pathology, signs/symptoms and treatment of conditions seen in PT. Emphasis may include conditions most commonly treated in physical therapy. Upon completion, the student should be able to discuss basic pathological processes, treatment options and prognoses of conditions studied.
- PTA 241 PHYSICAL DISABILITIES II (2T)** **2 credits**
PREREQUISITE: PTA 240
This course continues a body systems approach to study of common PT pathologies. Emphasis includes various neurological pathologies with additional focus on the needs of special populations. Upon completion, the student should be able to discuss PT interventions appropriate to a variety of diagnoses.
- PTA 250 THERAPEUTIC PROCEDURES I (2T, 6S)** **4 credits**
This laboratory course provides a hands on introduction to the principles and procedures of therapeutic physical therapy intervention. Emphasis is on basic patient care skills and procedures utilized in physical therapy. Upon completion, the student should be able to demonstrate safe and effective delivery of those procedures with an in-depth understanding of the rationale for each treatment.
- PTA 251 THERAPEUTIC PROCEDURES II (2T, 6S)** **4 credits**
PREREQUISITE: PTA 250
This laboratory course is a continued study of the principles and procedures of therapeutic PT intervention. Emphasis is on advanced physical therapy interventions and procedures and their rationale. Upon completion, the student should be able to demonstrate safe and effective delivery with an in-depth understanding of each.
- PTA 252 PHYSICAL AGENTS AND THERAPEUTIC MODALITIES (2T)** **2 credits**
This course provides the student with the theoretical basis for the use of physical agents such as heat, cold, electricity, light, water and therapeutic modalities utilized in physical therapy. Emphasis is placed on modalities such as hydrotherapy, various forms of electrical stimulation, ultrasound, traction and diathermy. Upon completion of the course, the student will understand the physiological effects, indications and contraindication, advantage and disadvantage of utilizing these modalities in physical therapy.
- PTA 253 THERAPEUTIC PROCEDURES III (2T, 6S)** **4 credits**
PREREQUISITE: PTA 250 AND PTA 251
This laboratory course is a continued study of the principles and procedures of therapeutic PT intervention. Emphasis is on specialized physical therapy interventions and procedures and their rationale. Upon completion, the student should be able to demonstrate safe and effective delivery with an in-depth understanding of each.
- PTA 260 CLINICAL EDUCATION I (5P5)** **1 credit**
This clinical experience is designed to introduce the student to the practice of physical therapy through interaction in the health care environment. The course entails on-going communication between the clinical instructor, student and course coordinator. Upon completion of the course, the student should be able to safely and effectively apply procedures and techniques previously attained in the classroom.
- PTA 261 CLINICAL EDUCATION II (5P5)** **1 credit**
PREREQUISITE: PTA 260
This clinical class is a continuation of PTA 260 which is designed to introduce the student to the practice of physical therapy through interaction in the health care environment. The course entails on-going communication between the clinical instructor, student, and course coordinator. The student will safely and effectively apply procedures and techniques previously attained in the classroom.
- PTA 263 CLINICAL AFFILIATION I (15P5)** **3 credits**
This clinical class will provide clinical interaction in the health care environment. The course entails on-going communication between the clinical instructor, student, and course coordinator. Upon completion, the student should be able to safely and effectively apply procedures and techniques previously attained in the classroom.
- PTA 266 CLINICAL FIELD WORK I (10P5)** **2 credits**
This clinical class will provide an intensive and extended clinical interaction in the health care environment. The course entails on-going communication between the clinical instructor, student, and course coordinator. The student will safely and effectively apply procedures and techniques previously attained in the classroom.
- PTA 267 CLINICAL FIELD WORK II (10P5)** **2 credits**
This clinical class is a continuation of PTA 266 and will provide clinical interaction in the health care environment. The course entails on-going communication between the clinical instructor, student and course coordinator. The student will safely and effectively apply procedures and techniques previously attained in the classroom.
- PTA 268 CLINICAL PRACTICUM (25P5)** **5 credits**
This clinical education experience allows the student to practice in the health care environment, using entry level skills attained in previous classroom instruction. The course entails on-going communication between the clinical instructor, student, and course coordinator. Upon completion of this course, the student should be able to demonstrate entry level competency in those skills necessary for functioning as a physical therapist assistant.
- PTA 290 THERAPEUTIC EXERCISE (3S)** **1 credit**
This lab course covers exercise techniques commonly used in PTA practice. It may include aquatics, isometric, isotonic, isokinetic, plyometric, Swiss ball, and aerobic exercise. Upon completion of the course, the student should have entry level skills in exercise application.
- PTA 293 DIRECTED STUDY FOR PTA (1T)** **1 credit**
This course is designed to increase the opportunity for

exploring, reading, and reporting on specific topics related to the field of physical therapy. Emphasis is placed on the development of knowledge in an area of interest to the student. The student should be able to meet the objectives of the course as approved by the instructor.

PHYSICS (PHY)

PHY 115 TECHNICAL PHYSICS (3T, 2E) 4 credits
PREREQUISITE: MTH 100

(Course taught infrequently; only as enrollment demands)
Technical physics is an algebra-based physics course designed to utilize modular concepts to include: motion, forces, torque, work energy, heat wave/sound, and electricity. Results of physics education research and physics applications in the workplace are used to improve the student's understanding of physics in technical areas. Upon completion, students will be able to define motion and describe specific module concepts; utilize microcomputers to generate motion diagrams; understand the nature of contact forces and distinguish passive forces; work cooperatively to set-up laboratory exercises; and demonstrate applications of module-specific concepts. Laboratory is required.

PHY 201 GENERAL PHYSICS I- TRIG BASED (3T, 2E) 4 credits
PREREQUISITE: MTH 104 or MTH 113 or Equivalent
(Course taught infrequently; only as enrollment demands)

This course is designed to cover general physics at a level that assumes previous exposure to college algebra and basic trigonometry. Specific topics include mechanics, properties of matter and energy, thermodynamics, and periodic motion. Laboratory is required.

PHY 202 GENERAL PHYSICS II – TRIG BASED (3T, 2E) 4 credits
PREREQUISITE: PHY 201
(Course taught infrequently; only as enrollment demands)

This course is designed to cover general physics using college algebra and basic trigonometry. Specific topics include wave motion, sound, light, optics, electrostatics, circuits, magnetism and modern physics. Laboratory is required.

PHY 205 RECITATION IN PHYSICS I (1T) 1 credit
One hour weekly purely for problem solving.

PHY 206 RECITATION IN PHYSICS II (1T) 1 credit
One hour weekly purely for problem solving.

PHY 213 GENERAL PHYSICS WITH CALCULUS I (3T, 2E) 4 credits
PREREQUISITE: MTH 125 or Permission of instructor
This course provides a calculus-based treatment of the principal subdivisions of classical physics: mechanics and energy. Laboratory is required.

PHY 214 GENERAL PHYSICS WITH CALCULUS II (3T, 2E) 4 credits
PREREQUISITE: PHY 213
This course provides a calculus-based study in classical

physics. Topics included are simple harmonic motion, waves, sound, light, optics, electricity and magnetism. Laboratory is required.

PHY 216 RECITATION IN PHYSICS WITH CAL I (1T) 1 credit
One hour weekly purely for problem solving.

PHY 217 RECITATION IN PHYSICS WITH CAL II (1T) 1 credit
One hour weekly purely for problem solving.

PHY 218 MODERN PHYSICS (3T, 2E) 4 credits
PREREQUISITE: PHY 214 and MTH 227
The focus of this course is the development of the theory of relativity, the old quantum theory of Planck, Einstein, Bohr and Sommerfeld, and the new quantum physics of Schrodinger, Heisenberg, Dirac and Pauli. Laboratory experiments illustrate the principles discussed and include, but are not limited to, determination of the speed of light, charge and charge to mass ratio of the electron, the Planck constant and the Rydberg constant. Laboratory is required.

PHY 219 RECITATION FOR MODERN PHYSICS (1T) 1 credit
PREREQUISITE: As required by program.
One hour weekly purely for problem solving.

PROCESS TECHNOLOGY (PCT)

PCT 100 FUNDAMENTALS OF PROCESS TECHNOLOGY (3T) 3 credits
This course provides an overview or introduction into the field of Process Operation. An overview of basic operating concepts and process control principles used within the process industries will be introduced and investigated.

PCT 110 PROCESS TECHNOLOGY I, EQUIPMENT (3T, 2E) 4 credits
PREREQUISITE: PCT 100
This course provides an overview or introduction into the field of process technology equipment within the process industry. Students will be introduced to many process industry related equipment concepts including purpose, components, operation, and Process Technicians' role for operating and troubleshooting the equipment.

PCT 115 INSTRUMENTATION I (2T, 2E) 3 credits
PREREQUISITE: PCT 100
This course covers process variables and various instruments used to sense, measure, transmit and control these variables. Introduces the students to control loops and the elements that are found in different types of loops, such as controllers, regulators and final control elements. Concludes with a study of instrumentation drawings and diagrams and a unit on troubleshooting instrumentation.

PCT 215 INSTRUMENTATION II (3T, 2E) 4 credits
PREREQUISITES: PCT 110 and PCT 115
This course introduces the student to switches, relays and annunciators systems and moves on to discuss signal con-

Course Descriptions

version and transmission. Students move on to learn about digital control, programmable logic control and distributed control systems before ending the course with a discussion of instrumentation power supplies, emergency shutdown systems and instrumentation malfunctions.

PCT 220 PROCESS TECHNOLOGY II, SYSTEMS (3T, 2E)

4 credits

PREREQUISITES: PCT 105 and PCT 110

This course is a study of the interrelations of process equipment and process systems. Students will be able to arrange process equipment into systems, describe the purpose and function of specific process systems, explain how factors affecting process systems are controlled under normal conditions, and recognize abnormal process conditions. Students are also introduced to the concept of system process control and manufacturing plant process economics.

PCT 230 PROCESS TECHNOLOGY III, OPERATIONS (3T, 2E)

4 credits

PREREQUISITES: PCT 215 and PCT 220

This course provides an overview or introduction into the field of operations within the process industry. Students will use existing knowledge of equipment, systems and instrumentation to understand the operation of an entire unit including using a Process Control simulator.

PCT 240 PROCESS TROUBLESHOOTING (3T, 2E)

4 credits

PREREQUISITES: PCT 215 and PCT 220

This course involves instruction in different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships and reasoning. In addition to troubleshooting static equipment problems as presented within a textbook, dynamic problems will also be presented via a process simulator for problem resolution by the student.

POLITICAL SCIENCE (POL)

POL 103, CURRENT AFFAIRS (2T) 104, 105

2 credits

This course sequence is designed to acquaint students with major issues and problems of contemporary society through examination of current events. Emphasis is placed on topics which contribute to student awareness of historical development and political significances of selected contemporary issues. Upon completion, students should be able to identify and explain factors in the historical development of, explain political significances of, and express informed judgments about selected contemporary social and political issues.

POL 106 CURRENT AFFAIRS (3T)

3 credits

This course is a study of contemporary world events as reflected in current media reports. Emphasis is placed on topics of current significance as news or human interest events on the national and international levels. Upon completion, students should be able to identify and explain factors involved with, explain political significances of, and

express informed judgments about selected contemporary social and political issues.

POL 200 INTRODUCTION TO POLITICAL SCIENCE (3T)

3 credits

This course is an introduction to the field of political science through examination of the fundamental principles, concepts, and methods of the discipline, and the basic political processes and institutions of organized political systems. Topics include approaches to political science, research methodology, the state, government, law, ideology, organized political influences, governmental bureaucracy, problems in political democracy, and international politics. Upon completion, students should be able to identify, describe, define, analyze, and explain relationships among the basic principles and concepts of political science and political processes and institutions of contemporary political systems.

POL 211 AMERICAN NATIONAL GOVERNMENT (3T)

3 credits

This course surveys the background, constitutional principles, organization, and operation of the American political system. Topics include the U.S. Constitution, federalism, civil liberties, civil rights, political parties, interest groups, political campaigns, voting behavior, elections, the presidency, bureaucracy, Congress, and the justice system. Upon completion, students should be able to identify and explain relationships among the basic elements of American government and function as more informed participants of the American political system.

POL 220 STATE AND LOCAL GOVERNMENT (3T)

3 credits

This course is a study of the forms of organization, functions, institutions, and operation of American state and local governments. Emphasis is placed on the variety of forms and functions of state and local governments, with particular attention to those in Alabama and to the interactions between state and local government and the national government. Upon completion, students should be able to identify elements of and explain relationships among the state, local, and national governments of the U.S. and function as more informed participants of state and local political systems.

POL 230 COMPARATIVE GOVERNMENT (3T)

3 credits

This course introduces comparative analysis of political systems. Emphasis is placed on institutions and processes of contemporary national political systems in selected democratic industrial nations. Upon completion, students should be able to compare and contrast the organization, institutions, and processes of major types of governmental systems of the world.

POL 236 SURVEY OF INTERNATIONAL RELATIONS (3T)

3 credits

PREREQUISITE: Permission of instructor

This course is a survey of the basic forces affecting international relations. Topics include bases of national power, balance of power, causes of war, the international political economy, international law, international organization, and possible futures of international relations. Upon completion, students should be able to identify and discuss rele-

vant terms and concepts and identify, analyze, evaluate and discuss the primary factors influencing the international relations of selected states.

POL 240 POLITICAL THEORY (3T) 3 credits

PREREQUISITE: Permission of instructor

This course is an introduction to political theory through examination of philosophical concepts related to development of modern political ideologies. Emphasis is placed on selected sources of political philosophies. Upon completion, students should be able to identify selected political concepts and associated philosophers, and define, analyze, and explain major tenets of selected ideologies.

POL 299 DIRECTED STUDIES 1-3 credits*

PREREQUISITE: Recommendation of instructor and approval of academic division dean

This course provides opportunities for non-traditional exploration of selected topics in political science. Emphasis is placed on knowledge and experience students gain through learning activities such as guided reading, internships, and programs combining personal experience with related intensive study. Upon completion, students should be able to prepare papers, presentations, or other projects on approved topics related to their individual experiences.

*Credit to be determined from appropriate contact-to-credit ratio formula.

PARALEGAL (PRL)

PRL 101 INTRODUCTION TO PARALEGAL STUDY (3T) 3 credits

This course introduces the paralegal profession and the legal system. Topics include an overview of major areas of legal practice, ethics, legal analysis and research, professional development including certification and employment, and related topics.

***Note: PRL 101 & PRL 102 must be taken before any other course with the PRL prefix, except that PRL 101 & PRL 103 may be taken concurrently.**

PRL 102 BASIC LEGAL RESEARCH AND WRITING (3T) 3 credits

PREREQUISITE: Grade of "C" or better in ENG 093 or satisfactory ACT, SAT, or placement score

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and validating sources of law. Topics include legal research, legal writing, proper citation, and electronic research.

***Note: PRL 101 & PRL 102 must be taken before any other course with the PRL prefix, except that PRL 101 & PRL 103 may be taken concurrently.**

PRL 150 COMMERCIAL LAW (3T) 3 credits

This course covers contracts, selected portions of the Uniform Commercial Code, and forms of business organization.

***Note: This course may be substituted by BUS 263**

PRL 160 CRIMINAL LAW AND PROCEDURE (3T) 3 credits

This course introduces substantive and procedural criminal law including elements of state and federal crimes, defenses, constitutional issues, pre-trial process, and other related topics.

****Note: This course may be substituted by CRJ 140**

PRL 210 REAL PROPERTY LAW (3T) 3 credits

This course emphasizes the study of real property law. Topics include the distinction between real and personal property, various estates and interests in property, and the mechanics of conveyance, encumbrances, and closing procedure.

***Note: This course may be substituted by RLS 125**

PRL 230 DOMESTIC LAW (3T) 3 credits

This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, and other related topics.

PRL 240 WILLS, TRUSTS, AND ESTATES (3T) 3 credits

This course covers wills, trusts, and inheritance. Topics include types of wills, the law of intestacy (inheritance), probating estates, and alternatives to probate. The course also covers trusts, medical directives, and associated litigation.

PRL262 CIVIL LAW AND PROCEDURE (3T) 3 credits

This course examines the Federal Rules of Civil Procedure, the Alabama Rules of Civil Procedure, and trial procedure.

PRL282 LAW OFFICE MANAGEMENT AND PROCEDURES (3T) 3 credits

This course focuses on the organization and policies and procedures of a law office.

PRL 291 PARALEGAL INTERNSHIP (3L) 3 credits

PREQUISITE: PRL 101, 102, 262, and permission of the Program Director

This course provides students opportunities to work in paid or unpaid positions in which they apply paralegal skills and knowledge. This course requires a minimum of 100 hours of practical experience in the legal field.

PSYCHOLOGY (PSY)

PSY 100 ORIENTATION (1T) 1 credit

This course is designed to introduce the student to college life, responsibilities, rules and regulations. This course is required for all students placing in at least two developmental courses on placement exam.

PSY 102 APPLIED PSYCHOLOGY (2T) 2 credits

This course introduces the basic principles of psychology as they apply to daily life. Topics include perception, emotions, motivation, adjustment, behavior management, communication, and related topics that promote growth and development on the job and in one's personal life. Upon completion, students should be able to apply the principles learned in this class to everyday living and on-the-job experiences.

PSY 106 CAREER EXPLORATION (1T) 1 credit

This course is designed for students to explore potential career fields. The course includes an assessment, thorough testing of strengths and weaknesses, general information about careers and job skills, value and decision making techniques, and career research.

Course Descriptions

PSY 107 STUDY SKILLS (1T) 1 credit
In this course, emphasis is placed on the skills of "how to study." The course introduces the student to effective techniques for listening in class, note taking, preparation for test taking, and an overall system of successful study.

PSY 110 PERSONAL DEVELOPMENT (3T) 3 credits
This is a structured group experience that emphasizes effective living through developing one's own internal resources. Topics included are self-programmed control, relaxation training, and inter-personal skills. The course is designed to translate other life skills into successful college adjustment. Study skills, library skills, and life planning are also discussed. This course may not transfer to some four-year institutions.

PSY 200 GENERAL PSYCHOLOGY (3T) 3 credits
COREQUISITE: ENG 093, C or better or satisfactory ACT, SAT, or RDG placement score.
This course is a survey of behavior with an emphasis on psychological processes. This course includes the biological bases for behavior, thinking, emotion, motivation, and the nature and development of personality.

PSY 207 PSYCHOLOGY OF ADJUSTMENT (3T) 3 credits
This course provides an understanding of the basic principles of mental health and an understanding of the individual modes of behavior.

PSY 208 CONTEMPORARY ISSUES IN PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course is a study of selected topics in general psychology.

PSY 210 HUMAN GROWTH AND DEVELOPMENT (3T) 3 credits
PREREQUISITE: PSY 200
This course is a study of the psychological, social and physical factors that affect human behavior from conception to death.

PSY 211 CHILD GROWTH AND DEVELOPMENT (3T) 3 credits
PREREQUISITE: PSY 200
This course is a systematic study of the behavior and psychological development of the child from conception to adolescence. Emphasis will be placed on principles underlying physical, mental, emotional and social development, methods of child study, and practical implications.

PSY 212 ADOLESCENT PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course covers a systematic study of the behavior and psychological development of the adolescent from late childhood to early adulthood. Emphasis will be placed on principles underlying physical, mental, emotional, and social development.

PSY 216 ADULT PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course covers a systematic study of the behavior and psychological development of the adult. Emphasis will be placed on principles underlying physical, mental, emotional and social development.

PSY 217 PSYCHOLOGY OF DEATH AND DYING (3T) 3 credits
This course is a study of the special psychological adjustments surrounding the issue of death and dealing with the terminally ill.

PSY 220 HUMAN SEXUALITY (3T) 3 credits
This course is a comprehensive and integrated approach to human sexuality emphasizing biological, psychological, social and emotional aspects.

PSY 230 ABNORMAL PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course is a survey of abnormal behavior and its social and biological origins. The anxiety related disorders, psychoses, personality disorders and mental deficiencies will be covered.

PSY 240 EDUCATIONAL PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course is a study of psychological theories and principles as applied to the educational process.

PSY 250 SOCIAL PSYCHOLOGY (3T) 3 credits
PREREQUISITE: PSY 200
This course is a study of social factors as they influence individual behavior.

PSY 260 STATISTICS FOR THE SOCIAL SCIENCES (3T) 3 credits
This course is an introduction to the basic statistical concepts, measures, and techniques used in social science research and report writing. It includes both descriptive and inferential statistics.

PSY 270 BUSINESS AND INDUSTRIAL PSYCHOLOGY (3T) 3 credits
PREREQUISITE: Permission of instructor
This course is a study of interpersonal relations in the working environment, interpersonal communications, and techniques for selection and supervision of personnel.

PSY 276 HUMAN RELATIONS (3T) 3 credits
PREREQUISITE: Permission of instructor
This course focuses on readings, inter- and intra- personal experiences, individual testing, employer visits and open discussions. Its goal is to assist the student in making a successful transition from classroom to the world of work.

PSY 280 BRAIN, MIND AND BEHAVIOR (3T) 3 credits
PREREQUISITE: PSY 200
This course is a comprehensive study of the human brain and its functions.

RELIGION (REL)

REL 100 HISTORY OF WORLD RELIGIONS (3T) 3 credits
This course is designed to acquaint the student with the beliefs and practices of the major contemporary religions of the world. This includes the religions of Africa, the Orient, and the western world. The student should have an understanding of the history and origins of the various religions of the world.

REL 101 SURVEY OF CHURCH HISTORY I (3T) 3 credits
This is the first course in a sequence of two courses which is a study of the growth and development of the church from the New Testament to the Reformation.

REL 102 SURVEY OF CHURCH HISTORY II (3T) 3 credits
This course is the second in a sequence of two courses which is a study of the growth and development of the church from the Reformation to the present day.

REL 106 CHRISTIAN DOCTRINES (3T) 3 credits
This course is a comparative study of church doctrines. The student should have an understanding of the various doctrines of the church.

REL 107 INTRODUCTION TO CHRISTIAN LIVING (3T) 3 credits
This course is a study of the categories of Christian ethics. Attention is given to the social institutions and how Christian ethics are applied to these institutions. The student should have an understanding of the ethical decisions of Christian living.

REL 108 INTRODUCTION TO PREACHING MINISTRY (3T) 3 credits
This course is a study of the meaning of preaching and the importance of the sermon. Included in the course is an introduction to the textual and topical resources for sermons. The student should understand and be able to prepare sermons.

REL 109 TEACHING IN THE CHURCH (3T) 3 credits
This course is a study of methods designed to improve teaching in the church. It addresses the meaning, methods and material that are effective in teaching in a church environment. The student should be able to develop a church curriculum upon completion of this course.

REL 116 CHURCH ADMINISTRATION (3T) 3 credits
This course is a comparative study of various types of church administration. The student should have an understanding of the various types of church administration.

REL 119 INTERPRETING THE BIBLE (3T) 3 credits
This course is an attempt to understand the method of dealing with scripture as the word of God. Attention is given to different approaches to interpretation and suggestions are provided for legitimate application. The student should develop a greater understanding of the Bible as a result of this course.

REL 120 LIFE AND TEACHING OF JESUS (3T) 3 credits
This course is a study of the teaching of Jesus as recorded in the Gospels, covering an examination of major events in his life in light of modern Biblical and historical scholarship. The student should have knowledge of Jesus' life and the application of his teachings to modern life. Emphasis in the course is given to the reading and interpretation of the gospels and on other ancient and modern source material.

REL 151 SURVEY OF THE OLD TESTAMENT (3T) 3 credits
This course is an introduction to the content of the Old

Testament, with emphasis on the historical context and contemporary theological and cultural significance of the Old Testament. The student should have an understanding of the significance of the Old Testament writings upon completion of this course.

REL 152 SURVEY OF THE NEW TESTAMENT (3T) 3 credits
This course is a survey of the books of the New Testament, with special attention focused on the historical and geographical setting. The student should have an understanding of the books of the New Testament and the cultural and historical events associated with these writings.

REL 166 BIBLICAL BACKGROUND (3T) 3 credits
This course is a contemporary overview of Biblical lands. The student should have an understanding of the geographical and cultural context of the lands associated with the Bible.

REL 206 HISTORY OF AMERICAN CHRISTIANITY (3T) 3 credits
This course is an attempt to understand the complex character of American churches and sects, their origin and development.

REAL ESTATE (RLS)

RLS 101 REAL ESTATE PRINCIPLES (4T) 4 credits
This is an introductory real estate course providing the necessary terminology, background, and understanding of real estate principles. Topics include history of property ownership, real estate finance, real estate law, and the mechanics of listing and closing the sale. It is designed to assist those preparing for the real estate salesman's licensing examination in Alabama.

RLS 110 REAL ESTATE FINANCE (3T) 3 credits
PREREQUISITE: RLS 101
This course provides an analysis of money markets, with special emphasis on real estate financing. Topics include interest rates, lending policies, problems and rules in real estate financing of real property.

RLS 116 REAL ESTATE APPRAISAL CERTIFICATION (4T) 4 credits
PREREQUISITE: RLS 101
This is an introductory course providing the foundation of real estate appraisal. Topics include site and physical factors; effects of the money and capital markets; methodologies used to value property; and how to present and evaluate the appraisal report.

RLS 125 REAL ESTATE LAW (3T) 3 credits
This course deals with Alabama real estate law. Emphasis is placed on such areas as real property and zoning easements, titles, deeds, recording practices, contracts, mortgages, and law.

RLS 140 INDEPENDENT STUDY IN REAL ESTATE (1-3T) 1-3 credits

Course Descriptions

This course allows a student to pursue independent studies in the real estate field. Projects and/or topics may be assigned by the instructor or designed by the student, with instructor's approval.

RLS 190 REAL ESTATE WORKSHOP (1-3T) 1-3 credits

These workshops consist of presentations of current topics of interest to those employed in the real estate industry. They can be developed to meet the continuing education requirements of the real estate professional. They are offered upon demand.

RLS 205 PROPERTY MANAGEMENT (3T) 3 credits

This course includes principles and practices of property management. Emphasis is placed on residential, business, industrial, and investment properties.

RADIO AND TV BROADCASTING (RTV)

RTV 101 INTRODUCTION TO BROADCASTING (3T) 3 credits

This course surveys the history, growth, and development of radio, television, and related media in the United States with emphasis on social, cultural, and economic implications and special consideration given to regulations and current issues.

RTV 106 VOICE AND DICTION FOR BROADCASTING (3T) 3 credits

This course provides exercises designed to improve individual standard broadcast English pronunciation with focus on the individual's regional, ethnic or native language pronunciation. Skills in the areas of news reading, sports casting, commercial salesmanship and public service script reading, ad lib announcing, vocabulary and interviewing are also developed.

RTV 110 BROADCAST REGULATION (3T) 3 credits

This course covers historical development of control of radio, television and related media by agencies, groups, and organizations through legal, social, and economic means.

RTV 115 AUDIO PRODUCTION I (1T, 6M) 3 credits

This course provides a foundation to the basic concepts that apply to all aspects of audio production. It is an introduction to basic audio techniques for film, radio, and television production. Emphasis is placed on effective use of words, music and/or sound effects in the production of audio. Audio production and post-production are covered, with a focus on production. The development of sound technology and its influence on various media, as well as radio history are examined.

RTV 116 RADIO BROADCASTING/AUDIO CAREERS I (3T) 3 credits

Theory and application of audio media writing and production techniques are covered in this course. Emphasis is placed on effective use of words, music and/or sound effects in the production of audio programming for radio.

RTV 117 TELEVISION/VIDEO PRODUCTION I (3T) 3 credits

The theory and application of television media writing and production techniques are covered in this course through

an examination of the equipment, process, and technology required in production for television and related media.

RTV 118 MEDIA PRE-PRODUCTION I (1T, 6M) 3 credits

This course is a study of and practice in techniques and skills used in planning for various types of media projects. The class explores all aspects of preproduction planning for media projects. A focus is placed on the role of producer, and the process of taking a concept from inception to completion through the development phase of the media production process. A special emphasis is placed on scriptwriting.

RTV 119 VIDEO PRODUCTION I (1T, 6M) 3 credits

This class provides demonstrations and practice regarding the basics of the video production process. The course introduces students to basic video production techniques and provides a basic overview of film and television theory and criticism. It provides a combination of theory and hands-on exercises in order for students to learn the equipment and techniques used in media production and editing. Basic shooting and editing techniques are introduced.

RTV 120 MEDIA POSTPRODUCTION I (1T, 6M) 3 credits

This class focuses on the technical and theoretical aspects of videotape editing. Students are provided with hands-on training and are required to produce various nonlinear editing exercises, exploring various editing techniques and approaches in a digital environment.

RTV 122 SCRIPTWRITING (1T, 6M) 3 credits

This course is an introduction to writing screenplays. Both creative and technical aspects are covered. Focus is placed on script formatting, story structure, character development and the use of visual imagery in the storytelling process. Students develop and write short screenplays and scripts are critiqued.

RTV 143 PRACTICUM IN RADIO/AUDIO I (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 144 PRACTICUM IN RADIO/AUDIO II (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 145 PRACTICUM IN RADIO/AUDIO III (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 153 PRACTICUM IN TELEVISION/VIDEO I (1T, 6M) 3 credits

This course offers supervised campus experience in television/video broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 154 PRACTICUM IN TELEVISION/VIDEO II (1T, 6M) 3 credits

This course offers supervised campus experience in television/video broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 155 PRACTICUM IN TELEVISION/VIDEO III (1T, 6M) 3 credits

This course offers supervised campus experience in television/video broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 160 STUDIO RIGGING AND SET DESIGN I (1T, 6M) 3 credits

The purpose of this course is to cover the basic function, development, construction, installation, implementation and oversight of sets and studios. Topics may include safety, backgrounds, furniture, props, and virtual set design. Upon completion, students will have an understanding of the components of set design, set up, and safe installation.

RTV 191 INTERNSHIP IN RADIO OR TELEVISION BROADCASTING (9M) 3 credits

This course offers supervised field experience in radio or television broadcasting or related areas.

RTV 215 AUDIO PRODUCTION II (1T, 6M) 3 credits

This class provides a further exploration of concepts that apply to all aspects of audio production. It is an examination of basic audio techniques for film, radio, and television production. Audio production and post-production are covered, with a focus on audio editing/post-production.

RTV 217 TELEVISION/VIDEO PRODUCTION II (2T, 2M) 3 credits

This course is a continuation of RTV 117 with emphasis on the theory and application of television/video production, direction, and editing.

RTV 218 MEDIA PRE-PRODUCTION II (1T, 6M) 3 credits

This course is an advanced study of and practice in techniques and skills used in planning for various types of media projects. The class explores all aspects of preproduction planning for media projects. A focus is placed on the role of producer, and the process of taking a concept from inception to completion through the development phase of the media production process. A special emphasis is placed on scheduling and casting.

RTV 219 VIDEO PRODUCTION II (1T, 6M) 3 credits

This class provides further demonstrations and practice regarding the video production process. Students are further introduced to basic video production techniques and the course provides an overview of film and television theory and criticism. It provides a combination of theory and hands-on exercises in order for students to learn the equipment and techniques used in media production. Advanced instruction in video production is provided through this hands-on, production-intensive course.

RTV 220 MEDIA POSTPRODUCTION II (1T, 6M) 3 credits

This course includes further instruction in nonlinear editing with emphasis on visual effects, transitions, editing short-cuts and text. The course explores current postproduction techniques, examining various editing styles and current

video technology. Concepts related to edit decisions and the management of media are developed through exercises and assignments. Specific issues relating to aesthetics of editing are also discussed.

RTV 222 ADVANCED MEDIA POSTPRODUCTION (1T, 6M) 3 credits

This course focuses on the use of computer generated postproduction audio/visual effects. Topics may include chroma-key effects, animation, and advanced text design. Upon completion, students will be able to apply their knowledge of advanced postproduction techniques.

RTV 226 BROADCAST MANAGEMENT (3T) 3 credits

This course covers theory and application of management practices in the administration of broadcast and related businesses.

RTV 230 LIGHTING FOR MEDIA (1T, 6M) 3 credits

This course examines the theoretical and practical application of lighting for video and/or film. Students gain production experience in field/location and studio lighting, and recording. Students will also participate in various roles related to lighting on the production team.

RTV 243 PRACTICUM IN RADIO/AUDIO IV (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 244 PRACTICUM IN RADIO/AUDIO V (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 245 PRACTICUM IN RADIO/AUDIO VI (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 253 PRACTICUM IN TELEVISION/VIDEO IV (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 254 PRACTICUM IN TELEVISION/VIDEO V (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 255 PRACTICUM IN TELEVISION/VIDEO VI (1T, 6M) 3 credits

This course offers supervised campus experience in radio/audio broadcasting with emphasis in the planning, production and editing of electronic media announcements and programs.

RTV 260 STUDIO RIGGING AND SET DESIGN II (1T, 6M) 3 credits

This is a continuation of RTV 160. It covers advanced principles of function, development, construction, installation,

Course Descriptions

implementation and oversight of sets and studios. Topics may include safety, backgrounds, furniture, props, and virtual set design. Upon completion, students will have an understanding of the components of set design, set up, and safe installation.

RTV 265 SPECIAL TOPICS IN MEDIA (9M) 3 credits

This course provides specialized instruction in various areas related to radio, audio, television, and video. Emphasis is placed on meeting students' needs.

RTV 266 SPECIAL TOPICS IN MEDIA (1T, 6M) 3 credits

This course provides specialized instruction in various areas related to radio, audio, television, and video. Emphasis is placed on meeting students' needs.

RTV 267 SPECIAL TOPICS IN MEDIA (9M) 3 credits

The topic of this course varies from semester to semester. Each course focuses on various issues in the field of media production and allows students to pursue specific projects related to the subject of the course. Covered topics may include specific genre production and study (such as horror, musical, and film noir) specific topic and style related project work, cinematic eras and trends and focuses on particular directors and related styles.

RTV 268 SPECIAL TOPICS IN MEDIA (1T, 6M) 3 credits

The topic of this course varies from semester to semester. Each course focuses on various issues in the field of media production and allows students to pursue specific projects related to the subject of the course. Covered topics may include specific genre production and study (such as horror, musical, and film noir) specific topic and style related project work, cinematic eras and trends and focuses on particular directors and related styles.

RTV 284 COOPERATIVE EDUCATION (9M) 3 credits

This course is designed to provide a paid cooperative work experience directly related to the field of radio and/or television broadcasting. The average hours worked each week will determine the number of credit hours allowed. Grades are based on the successful completion of the work experience as judged by the student's work supervisor and the faculty coordinator. To register for cooperative education, you must see the Job Development Officer in the Cooperative Education and Placement Office.

RTV 291 INTERNSHIP IN RADIO OR TELEVISION BROADCASTING (9M) 3 credits

This course offers supervised field experience in radio or television broadcasting or related areas.

SOCIOLOGY (SOC)

SOC 200 INTRODUCTION TO SOCIOLOGY (3T) 3 credits

This course is an introduction to vocabulary, concepts, and theory of sociological perspective of human behavior.

SOC 208 INTRODUCTION TO CRIMINOLOGY (3T) 3 credits

This course delves into the nature and extent of crime in the United States, as well as criminal delinquent behavior and theories of causation. The study includes criminal personalities, principles of prevention, control and treatment.

SOC 209 JUVENILE DELINQUENCY (3T) 3 credits **PREREQUISITE: SOC 200**

This course examines the causes of delinquency. It also reviews programs of prevention and **control** of juvenile delinquency, as well as the role of the courts.

SOC 210 SOCIAL PROBLEMS (3T) 3 credits **PREREQUISITE: SOC 200**

The course examines the social and cultural aspects, influences, incidence and characteristics of current social problems in light of sociological theory and research.

SOC 246 MODERN WOMEN IN A CHANGING SOCIETY (3T) 3 credits **PREREQUISITE: SOC 200**

This course explores the role of the contemporary woman and the changing family and the world of work.

SOC 247 MARRIAGE AND THE FAMILY (3T) 3 credits **PREREQUISITE: SOC 200**

The course is a study of family structures and families in a modern society. It covers preparation for marriage, as well as sociological, psychological, biological, and financial factors relevant to success in marriage and family life.

SOC 296 DIRECTED STUDIES IN SOCIOLOGY (1-3T) 1-3 credits **PREREQUISITE: SOC 200**

This course provides students with opportunities to have "hands-on" experience with research methods used in the behavioral sciences or to complete directed readings under faculty supervision.

SPANISH (SPA)

SPA 101 INTRODUCTORY SPANISH I (4T) 4 credits **PREREQUISITE: Grade of "C" or better in ENG 093 or satisfactory ACT, SAT or placement score**

This course provides an introduction to Spanish. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish speaking areas.

SPA 102 INTRODUCTORY SPANISH II (4T) 4 credits **PREREQUISITE: SPA 101 or Equivalent**

This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish speaking areas.

SPA 201 INTERMEDIATE SPANISH I (3T) 3 credits **PREREQUISITE: SPA 102 or Equivalent**

This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

SPA 202 INTERMEDIATE SPANISH II (3T) 3 credits
PREREQUISITE: SPA 201
 This continuation course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

SPEECH COMMUNICATIONS (SPH)

SPH 107 FUNDAMENTALS OF PUBLIC SPEAKING (3T) 3 credits
 This course explores principles of audience and environment analysis as well as the actual planning, rehearsing and presenting of formal speeches to specific audiences. Historical foundations, communication theories and student performances are emphasized. Students prepare and deliver short speeches, practice analytical listening, and engage in various communication exercises.

SPH 116 INTRODUCTION TO INTERPERSONAL COMMUNICATION (3T) 3 credits
 This course is an introduction to the basic principles of interpersonal communication.

SPH 206 ORAL INTERPRETATION (3T) 3 credits
(Course offered only in the Fall Semester at the Decatur Campus)
 This course is designed to help students develop specific skills in the analysis and oral interpretation of poetry, prose, and drama. It includes a study of the elements of oral communication such as imagery, structure, and dramatic timing. Opportunity is given for public/classroom performance of literature.

SOCIAL WORK TECHNOLOGY (SWT)

SWT 109 TECHNIQUES OF BEHAVIOR MODIFICATION I (3T) 3 credits
 In this course, the student will demonstrate the ability to decrease inappropriate behaviors and to shape appropriate behavior through the use of behavior modification techniques.

SWT 130 THE COMMUNITY AND THE SOCIAL WORKER (3T) 3 credits
 This course is designed to acquaint the student with the demographic, economic and cultural composition of the community. The student will develop technical skills for making practical application of available resources for enhancing the quality of life within the community.

SWT 131 PROBLEMS OF CHILDREN AND YOUTH (3T) 3 credits
 This course develops an understanding of the emotional, social, psychological, and physical needs of children and youth. This course presents the influences and responsibilities of natural and surrogate parents. The student becomes familiar with the nature and causes of the more common problems and develops skills for assisting with the prevention and/or improvement of problems common among children and youth.

SWT 133 GERIATRICS (3T) 3 credits
 This course includes the study of the needs of making adjustments to retirement, activities and hobbies of the older person, and community agencies available for the aged. This course will include common psychological and physical problems of the aging. Actual experience will be provided in helping the elderly accept the changes in later life and teaching them of the many services available to them.

SWT 138 COUNSELING FROM A CULTURAL PERSPECTIVE (3T) 3 credits
 This course will acquaint the students with some of the problems facing minorities. It will stress the importance of the counselor's knowledge of, and sensitivity to, the minority client experiences and how these experiences are greater now than they have been at any time in the past three decades. This course will help counselors and mental health practitioners maximize their effectiveness when working with a culturally diverse population. The student will learn to establish the necessary and sufficient conditions of a counseling relationship with clients who are culturally different. Similarities in race, ethnicity, and culture will be stressed.

SURGICAL TECHNOLOGY (SUR)

SUR 100 PRINCIPLES OF SURGICAL TECHNOLOGY (3T, 6S) 5 credits
PREREQUISITES: Admission to the Surgical Technology Program and permission of the instructor
 This course is an introduction to the field of surgical technology as a career. Emphasis is on the role of the surgical technologist, principles of asepsis, principles of patient care, surgical procedures, operative techniques, blood-borne pathogens, safety, pharmacology, and surgical instrumentation. Upon completion, the student should be able to demonstrate practical application of the basic procedures and skills of the surgical technologist.

SUR 102 APPLIED SURGICAL TECHNOLOGIES (2T, 6S) 4 credits
PREREQUISITES: Admission to the Surgical Technology Program and permission of the instructor
 This course is the application of principles of asepsis and the role of the surgical technologist. Emphasis is placed on creating and maintaining a sterile environment and applying skills of interoperative procedures. Upon completion of this course, the student should be able to participate in mock surgical procedures.

SUR 103 SURGICAL PROCEDURES (3T, 6S) 5 credits
PREREQUISITES: SUR 100, SUR 102, SUR 107, and HPS 114
 This course is a study of surgical procedures as they relate to anatomy, pathology, specialty equipment, and team responsibility. Patient safety is emphasized and medications used in surgery are discussed. Upon completion of the course, the student should be able to participate in surgical procedures in the operating room.

Course Descriptions

SUR 104 SURGICAL PRACTICUM I (20, P5) 4 credits
PREREQUISITES: SUR 100, SUR 102, SUR 107, and HPS 114

This course is the application of perioperative principles in the perioperative setting. Emphasis is placed on application of the surgical technologist's role. Upon completion of the course, the student should be able to participate in the surgical technologist role.

SUR 105 SURGICAL PRACTICUM II (1T, 20, P5) 5 credits
PREREQUISITES: SUR 103 and SUR 104

This clinical experience allows the student to practice in the health care environment using entry level skills attained in previous classroom, laboratory, and clinical instruction. In addition to clinical skills, emphasis is placed on specialty surgical procedures, the study of trends, professional and interpersonal skills in the health care setting, and case review. Upon completion of this course, the student should be able to apply concepts of surgical technology to student levels.

SUR 106 SPECIAL TOPICS IN SURGICAL TECHNOLOGY (1T) 1 credit
PREREQUISITES: SUR 100 and SUR 102

This course is designed to provide specialized instruction in selected topics in the field of Surgical Technology. Emphasis is on review of content specific to the practice of surgical technology and preparation for the LCC-ST certification examination. Upon completion of this course, the student will be able to demonstrate readiness to take the certification examination.

SUR 107 SURGICAL ANATOMY AND PATHOPHYSIOLOGY (3T) 3 credits
PREREQUISITES: Admission to the program and/or as required by the department

This course is an overview of surgical anatomy and pathophysiology. Emphasis is placed on the organization structure of the body, organ systems, relevant surgical pathophysiology, and related medical terminology. Upon completion, the student should be able to apply knowledge of anatomy in the clinical environment.

THEATRE (THR)

THR 113, THEATRE WORKSHOP 114, 115 I, II, III (2T) 2 credits each

These courses provide practical experience in the production and performance of a dramatic presentation with assignments in scenery, lighting, props, choreography, sound, costumes, make-up, publicity, acting, directing, and other aspects of theatre production.

THR 120 THEATRE APPRECIATION (3T) 3 credits

This course is designed to increase appreciation of contemporary theatre. Emphasis is given to the theatre as an art form through the study of the history and theory of drama and the contributions of playwright, actor, director, designer, and technician to modern media. Attendance at theatre productions is required. (Offered as a telecourse.)

THR 126 INTRODUCTION TO THE THEATRE (3T) 3 credits
This course is designed to teach the history of the theatre and the principles of drama. It also covers the development of theatre production and the study of selected plays as theatrical presentations.

THR 131 ACTING TECHNIQUES I (3T) 3 credits
This is the first of a two-course sequence in which the student will focus on the development of the body and voice as the performing instruments in acting. Emphasis is placed on pantomime, improvisation, acting exercises, and building characterizations in short acting scenes. Students will participate in a theatre production.

THR 132 ACTING TECHNIQUES II (3T) 3 credits
PREREQUISITE: THR 131
This course is a continuation of THR 131. Students will participate in a theatre production.

THR 141 VOICE AND SPEECH FOR THE PERFORMER (3T) 3 credits
This is a beginning course in the effective and health use of the vocal Instrument for performance. It is designed to approach both the physical and mental processes of vocal production and includes the following: learning a physical/vocal warm-up, dialect reduction, articulation, class performance and written exams.

VISUAL COMMUNICATIONS (VCM)

CAT 182 3D GRAPHICS AND ANIMATION (1T, 2E, 3M) 3 credits
PREREQUISITE: ART 221
This course is designed to tap the imagination of the student in a three-dimensional problem solving environment. Topics include a basic introduction to the concepts of 3D design and animation as applied to a design project. Upon completion, students should be able to create and animate objects in a three-dimensional environment.

VCM 131 COMPUTER PUBLISHING GRAPHICS (2T, 2E) 3 credits
This course is designed to acquaint the student with basic publishing software. The emphasis will be on basic layout and graphics. Upon course completion, the student should be able to produce graphics work in a format suitable for publication.

VCM 145 INTRODUCTION TO DIGITAL PHOTOGRAPHY (3T) 3 credits
PREREQUISITE: VCM 232 or Permission of instructor
This course is an introduction to digital photography. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student should understand quality in photography and be able to apply the techniques necessary to produce professional photographs.

VCM 146 DIGITAL PHOTOGRAPHY (3T) 3 credits
PREREQUISITE: VCM 232 or Permission of instructor
This course explores various uses of digital photography. Subjects may include studio, portrait, landscape and other

areas of photography. Upon completion, the student should be able to apply the techniques necessary to produce professional photographs of a variety of subjects.

Upon completion, students should be able to prepare artwork for printing.

VCM 150 TYPOGRAPHY (2T, 2E) 3 credits
PREREQUISITE: ART 221

This course is an introduction to designing and using type. Emphasis is on typographic techniques used in layout and graphic design. Upon completion, the student should be able to view type as a design element.

VCM 171 GRAPHICS SOFTWARE APPLICATIONS (3T) 3 credits

This course is an introduction to graphics software packages. Students are given a basic overview of the software as applied to specific production problems. Upon completion, the student should be able to produce basic graphics using applicable software. This course may be repeated for credit.

VCM 180 INTRODUCTION TO GRAPHIC DESIGN (2T, 2E) 3 credits

This course is an introduction to the various elements of graphic design. Emphasis is on aspects of production design including layout, typography, graphic photography, computer graphics and printing techniques. Upon completion, students should have a basic understanding of the graphics process from concept through production.

VCM 181 SPECIAL TOPICS (0-3T, 0-6E, 0-9M) 1-3 credits

This course allows for specialized, in-depth study. Emphasis is placed on individualized instruction.

VCM 232 ADVANCED COMPUTER GRAPHICS (2T, 2E) 3 credits

This course is designed to acquaint the student with computer graphics. Topics include illustration and image manipulation. Upon completion, students should be able to apply design principles to computer graphics.

VCM 250 INTRODUCTION TO TECHNICAL ILLUSTRATION (2T, 2E) 3 credits

PREREQUISITE: ART 221 or Permission of instructor
This course is a study of technical drawings prepared for industry. Topics include perspective and axonometric drawing. Upon completion, students should be able to apply basic drawing and design principles to technical drawings.

VCM 251 TECHNICAL ILLUSTRATION (2T, 2E) 3 credits
PREREQUISITE: VCM 250

This course focuses on renderings prepared for industry. Various techniques are used to illustrate charts, graphs, perspective and axonometric drawings and enhanced assembly views. Upon completion, students should be able to apply design principles to technical drawings and highly creative drawings using technical skills.

VCM 253 GRAPHIC DESIGN BASICS (2T, 2E) 3 credits

This course focuses on the basic principles of graphic design. Emphasis is on design, layout, and production.

VCM 254 GRAPHIC DESIGN (2T, 2E) 3 credits

This course focuses on graphic design. Emphasis is on the creative process and the projection process. Upon completion, students should be able to produce high quality graphic designs.

VCM 255 ADVANCED GRAPHIC DESIGN (2T, 2E) 3 credits

This course focuses on graphic communications. Emphasis is on application of design principles to projects involving such skills as illustration, layout, typography, computer graphics, and production technology. Upon completion, students should be able to apply graphic design principles and production skills.

VCM 270 SUPERVISED STUDY IN GRAPHICS (6E) 3 credits

PREREQUISITE: All studio courses offered in the selected area of study and Permission of instructor

This course is designed to enable the student to continue studio experiences in greater depth. Areas of study are chosen by the student, with the approval of the instructor. This course will result in a better understanding of various aspects of graphics. This course may be repeated for credit.

VCM 273 SUPERVISED STUDY IN COMPUTER GRAPHICS (6E) 3 credits

PREREQUISITE: All studio courses offered in the selected areas of study and Permission of instructor

This course is designed to enable the student to continue studying computer graphics in greater depth. Areas of study will be chosen by the student, with the approval of the instructor. This course will result in a better understanding of various aspects of computer graphics. This course may be repeated for credit.

VCM 281 DIGITAL DESIGN (3T) 3 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor

This course focuses on products for digital media. Emphasis is on creativity and an understanding of software and production. Upon completion, the student should be able to apply creative design and production skills to finished projects.

VCM 282 ADVANCED DIGITAL DESIGN (3T) 3 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor

This course focuses on advanced applications in the production of digital design. Emphasis is on computer skills, creativity & design. Upon course completion, students should be able to apply production techniques to various media.

VCM 285 MULTIMEDIA PRODUCTION (3T) 3 credits
PREREQUISITE: ART 221 and VCM 232 or Permission of instructor

This course introduces the student to multimedia production. Emphasis is on production design, creativity, visual

Course Descriptions

design, and technical skills. Upon course completion, students should be able to create a multimedia production.

VCM 286 ADVANCED MULTIMEDIA PRODUCTION

(3T)

3 credits

PREREQUISITE: VCM 285 or Permission of instructor

This course focuses on advanced multimedia production. Emphasis is on comprehensive interactive multimedia production. Upon course completion, students should be able to apply creative design and production skills to finished interactive projects. Problems will include comprehensive interactive multimedia production. The student will apply creative design and production skills to finished interactive projects.

VCM 287 SPECIAL TOPICS (0-3T, 0-6E, 0-9M)

1-3 credits

This course allows for specialized, in-depth study. Emphasis is placed on individualized instruction.

VCM 289 PORTFOLIO (2E)

1 credit

PREREQUISITE: Permission of instructor

This course is designed to assist students in the preparation and presentation of a portfolio. This portfolio is developed with faculty consultation and reflects the students' ability to produce professional design and graphics.

WORKPLACE SKILLS ENHANCEMENT (WKO)

WKO 107 WORKPLACE SKILLS PREPARATION (2E)

1 credit

This course utilizes computer based instructional modules which are designed to access and develop skills necessary for workplace success. The instructional modules in the course include applied mathematics, applied technology, reading for information, and locating information. Upon completion of this course, students will be assessed to determine if their knowledge of the subject areas has improved.

2009 2010

Administration, Faculty, & Staff



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COLLEGE ADMINISTRATION, FACULTY, AND STAFF

- ABUDIAB, NIZAR.** Computer and Office Information Systems/Mathematics. B.S., M.S., McNeese State University.
- AGRAWAL, NICK.** Lead Faculty. Business and CIS, Huntsville Campus. B.S., Delaware State University; MBA, Alabama A&M University; Additional graduate credits.
- ALFORD, RODNEY.** Program Leader/Mathematics/Huntsville Campus. B.S., Auburn University; M.Ed., Alabama A&M University.
- ANDERSON, KENNETH.** Dean of Humanities and Social Sciences. B.S., Oakwood University; M.S., Alabama A&M University; Additional graduate credits.
- ANSARDI, DAVID.** Biology. B.S., Louisiana Tech University; Ph.D. University of Alabama in Birmingham
- ASHERBRANNER, MARY.** Scholarships, Student Financial Services. Technical Diploma, Calhoun Community College.
- BAKER, GWEN.** Dual Enrollment Coordinator. B. S. University of North Alabama.
- BAKER, SUSAN.** PBX Operator/Receptionist. Technical Diploma, Calhoun Community College.
- BARHAM, THOMAS J.** Speech. B.A., Louisiana State University; M.A., University of Kansas; Additional graduate credits.
- BARNETT, GENE.** History. B.A., Lipscomb University; M.A., Auburn University; Additional graduate credits.
- BASS, DONNA.** Non-Credit and Continuing Education Coordinator. A.S. Calhoun Community College; B.S. Athens State University. Additional graduate credits.
- BEADLE, KRISTINE.** Art. B.F.A., Memphis Academy of Arts; M.E., Alabama A&M University.
- BECK, MARILYN C.** President. B.S., Troy State University; M.Ed., Ed.D., Auburn University; Post-doctoral, Auburn University.
- BEDDOW, LUCINDA M.** Head Librarian. A.A., Martin College; B.A., M.L.S., George Peabody College.
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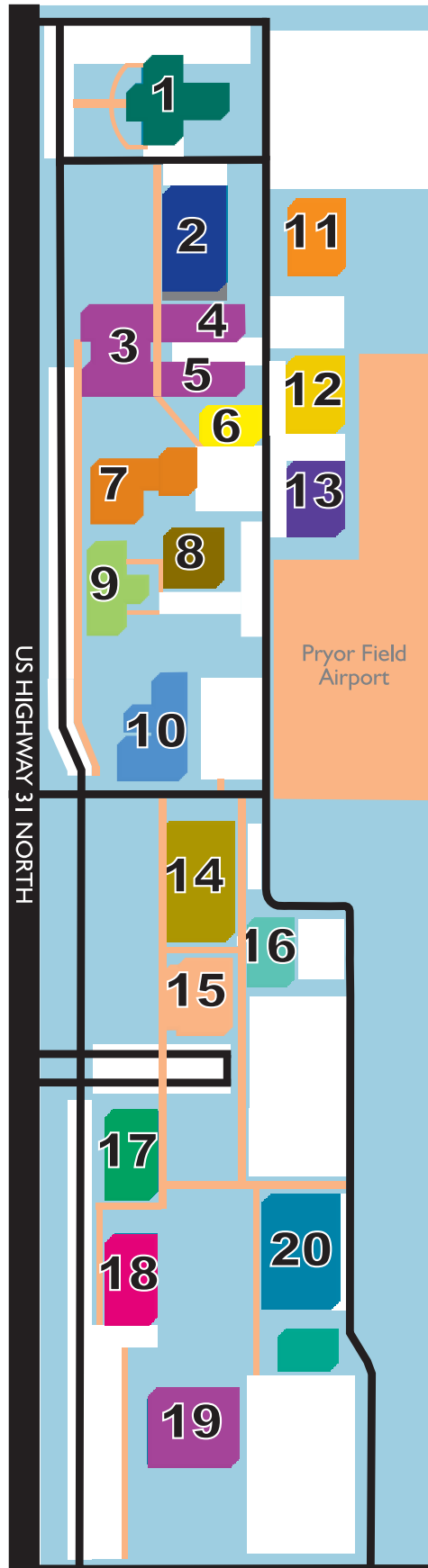
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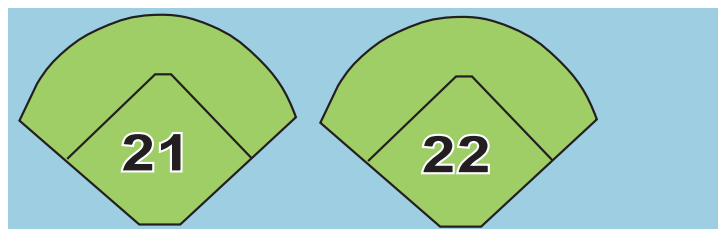
DECATUR CAMPUS MAP



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- | | |
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|---|---|





Cummings Research Park



HUNTSVILLE/RESEARCH PARK CAMPUS

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The Alabama Community College System Vision, Mission, Goals, and Objectives

Vision Statement

The Alabama Community College System believes education improves the life of every individual and advances society as a whole.

Mission Statement

The Alabama Community College System, consisting of public two-year community, and technical colleges and an upper division university, seeks to provide accessible quality educational opportunities, promote economic growth, and enhance the quality of life for the people of Alabama.

Goals

- To provide accessible quality educational opportunities.
- To promote economic growth.
- To enhance the quality of life.

Objectives

The Alabama Community College System shall provide:

- General education and other collegiate programs at the freshman and sophomore levels that prepare students for transfer to other colleges and universities.
- Technical, vocational, and career education that prepares students for immediate employment, retraining existing employees, and promotes local and state economic stability and competitiveness.
- An upper division university that provides selected baccalaureate opportunities for students within the postsecondary system.
- Developmental education that assists individuals in improving learning skills and overcoming educational deficiencies.
- Student services and activities that assist individuals in formulating and achieving their educational goals.
- Learning resources that support the needs of the institution and the community.
- Business and industry development training that meets employer needs.
- Continuing education and personal enrichment opportunities that support life-long learning and the civic, social, and cultural quality of life.
- Expanded partnerships with schools and school systems in the state to deliver seamless educational options and supportive articulation services.