Alabama's Pacesetter In College Level Technical Education
1993-1994 GENERAL CATALOG

BESSEMER STATE TECHNICAL COLLEGE
U.S. Highway 11
Bessemer, Alabama

THE ALABAMA COLLEGE SYSTEM
Community □ Junior □ Technical □ Upper Division

Governed By:
Alabama State Board of Education

Accredited By:
SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS
AMERICAN DENTAL ASSOCIATION
ALABAMA BOARD OF NURSING
CORRESPONDENCE DIRECTORY

For additional information and answers to questions about the College, contact the following personnel:

Administrative Affairs ................................................................. President

Admissions ................................................................. Coordinator of Admissions

Career Planning and Job Placement .......... Coordinator of Career Planning and Job Placement

Community Relations ......................... Director of Community Relations

Financial Matters ................................................................. Business Manager

Business and Industrial Training .................. Director of Business and Industrial Training

Information for Prospective Students, Assistant Dean of Student Counseling, and Student Services Development Services

Instruction and Curricula ......................... Dean of Instruction

Night Classes ...................................................... Coordinator of Evening Program

Personnel ................................................................. Dean of Human Resources and Academic Support

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GENERAL INFORMATION

INTRODUCTION TO THE COLLEGE

Bessemer State Technical College is Alabama’s largest technical college.

The college offers 24 programs of technical, health, business, and skill training designed specifically to meet the occupational goals of students and the employment needs of businesses and industries in Central Alabama.

Course lengths vary from six months to two years depending on the complexity of course content and the necessary time required to prepare an individual for the occupation he or she chooses to pursue. Graduates of the college receive either a certificate, diploma, or associate in applied technology degree.

Students completing the programs offered at Bessemer State Technical College have an option of continuing their education toward an advanced degree. State universities, depending on the institution, and Athens State College will apply technical college course work toward degrees.

HISTORY

During the 1963 session of the Alabama Legislature, a special tax was approved which created a comprehensive system of technical colleges and institutes. Bessemer State Technical College was one of the 28 technical colleges and institutes established by the action of the State Legislature.

Recognizing the urgent need to provide technical and skill training for persons in Jefferson County and in Bessemer, in particular, Bessemer business and industrial leaders and city officials proposed a resolution to the state requesting that Bessemer be selected as the site for one of the technical institutes. The resolution was approved in the fall of 1963.

A site of 34 acres was selected on U.S. Highway 11 South. The City of Bessemer purchased the property and deeded the property to the Alabama Trade School and Junior College Authority. Construction of the new campus began shortly thereafter.

Bessemer Tech accepted its first students on April 14, 1966, and offered six programs of study. The first class numbered 47 day students and 30 night students.

During the first stages of growth, the college was known as the State Vocational-Technical School. The first official name was the John R. Pelham Technical-Trade School. The name was changed later to Bessemer State Trade School. On August 16, 1966, the name was again changed by legislative act to Bessemer State Technical Institute. Bessemer Tech was accredited by the Southern Association of Colleges and Schools in 1972 and in August, 1973, achieved college status. Accreditation enabled Bessemer State Technical College to grant an associate in applied technology degree.

In order to meet the demands created by rapidly increasing student enrollment, the City of Bessemer acquired and donated an additional 23 acres of property in 1973 to allow for future expansion of Bessemer State Technical College. Construction on the new property began in 1975.

Expansion of facilities has continued from 1975 with the construction of the Jess Lanier Building, the Millsap Industrial Training Center and the Ethel H. Hall Automotive Technology Center. The Millsap and automotive buildings have enabled the college to expand its services to business and industry by offering apprentice training, upgrade training, and multimodal training.

The college began developing a program of cooperative education in the Fall Quarter 1981 which enabled the college to substitute practical application experiences off-campus for laboratory assignments conducted on campus. This cooperative education concept was expanded in 1984 with the implementation of the General Motors-sponsored Automotive Service Educational Program (ASEP), the Ford Motor Company Automotive Student Service Education Training (ASSET) program in 1990 and the Toyota Technical Education Network (T-TEN) program in 1991.

PHILOSOPHY

Bessemer State Technical College was created by legislative act for the purpose of providing skill and technical training for the citizens of Alabama. The college has adopted a philosophy that meets this obligation.

The mission of Bessemer State Technical College is to provide instructional programs and support services to individuals who seek to develop the knowledge, skills and attitudes necessary for acquiring and maintaining successful employment, and to meet the needs of business and industry by providing specialized services such as customized training courses, competency testing, and consulting services.

Bessemer State Technical College has the firm belief that this institution has an obligation to provide education that will train an individual for meaningful employment, leadership, and citizenship. The college, therefore, is committed to the development of the individual’s ability to think clearly and critically, to communicate effectively, and to use various disciplines to solve the problems which face a productive worker.

The college operates according to the principle that theory and knowledge gained in the classroom will be reinforced by practical experience in shops and laboratories and that safe work practices will be strongly emphasized. The college believes that the necessary skills and knowledge can be acquired best under the instruction and supervision of an instructor who is proficient in his/her field.

MISSION STATEMENT

To provide instructional programs and support services to individuals who seek to develop the knowledge, skills, and/or attitudes necessary for acquiring and maintaining successful employment, and to meet the needs of business and industry by providing specialized services such as customized training courses, competency testing, and consulting services.

ORGANIZATIONAL GOALS

1. Instruction - To develop and maintain viable educational programs that prepare students for employment, job advancement, occupational change, further educational opportunities and personal growth.

2. Finance - To effectively utilize available financial resources to provide quality educational opportunities to students.

3. Student Personnel Services - To provide Student Personnel Services including pre-enrollment, enrollment, and post-enrollment activities to complement the instructional programs.

4. Public Information - To inform the general public of the opportunities offered by Bessemer State Technical College.

5. Organizational Management - To maintain a management system which enhances achievement of institutional goals and objectives.

6. Economic Development - To enhance the economic development of Central Alabama through the college’s business and industry training division.

7. Facilities/Environment - To provide buildings, grounds, and equipment to support the programs and services of the college.
THE CAMPUS

Bessemer State Technical College occupies approximately 50 acres of rolling and wooded property in the southern section of Bessemer. The main campus is composed of 34 acres and is connected with the North campus by a drive paralleling the interstate system.

THE INSTRUCTIONAL BUILDINGS

Building A is located at the main entrance to the campus and provides facilities for administrative offices, the college's bookstore, and cafeteria. Instructional programs in this building are Licensed Practical Nursing, Nursing Assistant, Emergency Medical Technician, Dental Assisting, Computer Science, Data Entry, Air Conditioning/Refrigeration, Commercial Food Services, Retailing and Merchandising, Industrial Electronics, Industrial Maintenance, Student Support Services, Office Administration, Horticulture, Accounting, general education courses, and the Displaced Homemakers and Sex Bias Elimination programs.

Building B is a two-story structure located adjacent to Building A. Programs occupying the building are Graphics and Printing, Air Conditioning/Refrigeration, Welding, Drafting, Commercial Art, and automotive training.

Building C is a single-story building providing facilities for automotive training.

Building D is located on the southern most area of the main campus and houses the Diesel Mechanics program.

Ethel H. Hall Automotive Technology Center is a facility housing five General Motors classroom-labs and a conference auditorium for satellite telecasts. The President's Office and the Dean of Human Resources and Academic Support are also located in this building.

Lanier Building provides facilities for specialized automotive training programs.

Millsap Industrial Training Center is designed to accommodate classroom and laboratory instruction for apprenticeship, upgrade, and multi-craft training for industry. The Dean of Instruction's Office, Office of Community Relations, Industrial Training Director's Office, and the State Vocational Rehabilitation Office are located in this building.

North Campus is composed of a cluster of buildings housing Building Construction, Building Maintenance, and Small Engine Repair.

BUSINESS AND INDUSTRIAL TRAINING

For twenty years, Bessemer State Technical College has been actively involved in specialized/custom training courses, competency testing, and consulting for both business and industry. All three of these services have been offered with great success to companies in the Birmingham area, the State of Alabama, and the southeastern United States.

The College has the capability through its Business and Industrial Training Division to develop a unique training program or testing program for any company and to administer the program at the company's facility or at the college.

A Quality Product -- Bessemer State Technical College is proud of its educational programs which span the occupational spectrum. Training begins with entry level skills, moves into specialized technologies, and includes retraining which provides for individual advancement.

Start-Up Training -- The college offers start-up training which is implemented before or immediately after the employee is hired. The program assures quality training standards which will provide for a productive employee without additional on-the-job training or a time consuming break-in period.

Program Flexibility -- On-site training is just one aspect that has earned Bessemer State Tech a reputation of flexibility in meeting the needs of business and industry in Alabama. Scheduling, location and instructor utilization are all tailored to specific needs. One-time sessions, on-going instruction, or around-the-clock training can be provided by Bessemer State Technical College.

Enrichment Programs -- Bessemer State Tech offers programs to enrich employee skills in traditional or non-traditional areas. Training in CPR, first aid, management, technical areas, word processing, etc., are just a few of the topics of interest and benefits available to both the employee and the employer.

Saving Dollars -- One of the best characteristics of Bessemer State Tech's program is its reasonable cost. Our College is nationally recognized for its long-standing commitment to quality and low-cost business and industry training programs. All programs are economically designed.

For More Information...

Our Business and Industrial Training Division at Bessemer State Tech welcomes the opportunity to assist your company with all its training, testing, and consulting needs. Please feel free to contact the Business and Industrial Training office at (205) 428-6391, ext. 167.

POLICY STATEMENTS

DRUG-FREE WORKPLACE POLICY

In compliance with the drug-free workplace requirements of Public Law 100-690 for recipients of Federal contracts and grants, the following policy is in effect for Bessemer State Technical College.

1. The unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited by Bessemer State Technical College or during any activity conducted, sponsored, or authorized by or on behalf of Bessemer State Technical College. A "controlled substance" shall include any substance defined as a controlled substance in section 102 of the Federal Controlled Substance Act (Code of Alabama, Section 20-2-1, et seq.).

2. Bessemer State Technical College has and shall maintain a drug-free awareness program to inform employees about:

   a. the dangers of drug abuse in the workplace;
   b. Bessemer State Technical College's policy of maintaining a drug-free workplace;
   c. any available drug counseling, rehabilitation, and employee assistance program; and
   d. the penalties that may be imposed upon employees for drug abuse violations.

3. All employees of Bessemer State Technical College shall comply with paragraph 1 above.

4. Any employee who is convicted by any Federal or State Court of an offense which constitutes a violation of Paragraph 1 shall notify President W. Michael Bailey in writing of said conviction within five (5) days after the conviction occurs. Conviction, as defined in P.L. 100-690, shall mean "a finding of guilt (including a plea of no contest) or imposition of sentence, or both."

GENERAL INFORMATION
5. In the event of a report of conviction pursuant to paragraph 4 where the employee is working in a project or program funded through a Federal contract or grant, Bessemer State Technical College shall notify in writing within ten (10) days any Federal agency to whom such notification by Bessemer State Technical College is required under P.L. 100-690.

6. In the event an employee violates paragraph 1 or receives a conviction as described in paragraph 4, the respective employee shall be subject to appropriate disciplinary action which may include, but is not limited to, termination of employment. Bessemer State Technical College shall also reserve the right to require said employee, as a condition of continued employment, to satisfactorily complete a drug treatment or rehabilitation program of a reasonable duration and nature.

7. Bessemer State Technical College shall make a good faith effort to ensure that paragraphs 1-6 are followed.

8. Each employee of Bessemer State Technical College shall receive a copy of this policy.

TOBACCO POLICY

The Environmental Protection Agency has classified second-hand smoke as a human carcinogen which has been found to cause cancer in humans.

It is the policy of Bessemer State Technical College that the use of tobacco (in any form) is prohibited in all buildings on campus, outside the front of Building A, and in all areas containing flammable materials. This policy shall include but not be limited to all classrooms, shops, laboratories, hallways, restrooms, the cafeteria, and offices within all buildings on campus.

MEASLES PREVENTION

Vaccination guidelines for measles apply to students in Alabama colleges born in or after 1957. Previously, a single dose of vaccine was required. Most persons who attended school in this state met that requirement, either by having been vaccinated at 15 months of age or upon entering elementary or secondary school.

However, due to an increased incidence of measles, and recommendations both by the U.S. Department of Health and the Center for Disease Control in Atlanta, the state health department and the state board of education now require that students provide documentation of immunity to measles. If you were born in or after 1957 this new policy affects you.

The required documentation can be provided in different ways. Please refer to the Student Handbook for more information.

FAMILY EDUCATION AND PRIVACY ACT

Under the Federal Family Educational and Privacy Act, 20 U.S.C. 1232g, Bessemer State Technical College may disclose certain student information as “directory information.” Directory information includes the names, addresses, telephone numbers, dates of birth, and major fields of study of students, as well as information about students' participation in officially recognized activities and sports, the date of attendance by students' degrees and awards received, and the most recent previous educational agency or institution attended by a respective student. If any student has an objection to any of the aforementioned information being released during any given quarter or academic year, the student should notify, in person or in writing, the Coordinator of Admissions.

FEDERAL STATUTES RELATING TO NONDISCRIMINATION

a. Title IX of the Education Amendments of 1972, as amended (20 U.S.C., subsections 1681-1683, 1685-1686), which prohibits discrimination on the basis of sex.

b. Title IX, Section 106.8 provides protection against acts of sexual harassment, requiring recipients to have available grievance procedures. For information contact:

TITLE IX COORDINATOR
Ms. Mattie Hendrix
Location: Building A, Room 105
Telephone: (205) 428-6391 ext. 196

c. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C., subsection 794), and American's with Disabilities Act of 1990 which prohibits discrimination on the basis of disability. Bessemer State Technical College will make every reasonable attempt to provide special services needed by students with disabilities. Services will consist of working with the student and school personnel to provide those reasonable accommodations necessary to provide a satisfactory learning environment. For information contact:

504 COORDINATOR:
Mr. Mickey Roy
Location: Building A, Business Office
Telephone: (205) 428-6391 ext. 123


e. Equal Opportunity/Equal Access Statement. It is the official policy of the Alabama Department of Postsecondary Education, including all postsecondary institutions under the control of the State Board of Education, that no person in Alabama shall, on the grounds of race, color, disability, sex, religion, creed, national origin or age, be excluded from participation or be denied the benefits of, or be subjected to discrimination under any program, activity, or employment. Bessemer State Technical College complies with non-discriminatory regulations under Title VI and Title VII of the Civil Rights Act of 1964; Title IX Educational Amendment of 1972; and Section 504 of the Rehabilitation Act of 1973.

ABOUT THE COVER

The cover of Bessemer State Tech's 1993-94 College Catalog features an airbrush art design by Daniel "Hutch" Hutchison. The design was rendered in acrylics and incorporates the special techniques of image transfer and crackle with a small brush. The art piece is a study of abstract design, textures and shadows on a grid pattern.

Hutchison is a commercial art major at Bessemer State Technical College. His instructors are Judy Johnson and Anita Bice. The 30 year old Hutchison will graduate in the fall of 1994. His hobbies include hiking, horseback riding and spelunking.

Hutchison's credits include a poster design for a recent Toyota convention and special recognition from the commercial art department's advisory committee for package design.
ADMISSION REQUIREMENTS

New Students and Transfer Students

Applicants must have either a standard diploma from an accredited high school or the GED equivalency. Most programs of study require applicants to meet placement criteria for their major program as measured by the ASSET placement exam. Specific programs of study may establish additional admission requirements. Alabama law requires males between the ages of 18 and 26 to register with the U.S. Selective Service System before they are eligible to enroll.

Conditional Admission

Applicants may be admitted on a conditional basis if any of the following circumstances apply:

1. Required transcripts are not on file, in which case the student must provide transcripts before the state board of education will allow a second quarter of enrollment.
2. Required health forms are not on file, in which case the student must provide required documentation before state policy will allow continuing enrollment.
3. Placement testing results determine that enrollment in one or more developmental skills courses will be required to increase the likelihood of the applicant successfully completing the selected training program.
4. A transfer student has compiled a cumulative grade point average of less than 2.0 on a 4.0 scale in previous college work. In such case the student will be admitted on academic probation and will be required to meet the college's standards of satisfactory academic progress to continue enrollment.
5. If placement testing is not required for entrance (usually for part-time students in non-degree programs). In such case the student will be required to meet the college's standards of satisfactory academic progress to continue enrollment.

Special Admission

1. Applicants who are not high school graduates or GED equivalent may be considered for special, conditional admission into non-degree programs only if all of the following circumstances exist:
   A. The applicant is at least 16 years of age.
   B. The applicant has not been enrolled in secondary education for at least one calendar year.
   C. The applicant can document "ability to benefit" based on criteria for his/her major program as measured by the ASSET placement exam. NOTE: Those applicants who do not have a standard high school diploma, or the GED, and who wish to receive federal Title IV financial aid must demonstrate the "ability to benefit" by passing an independently administered examination approved by the U.S. Secretary of Education. Such applicants should consult the Office of Financial Assistance for details of how the "ability to benefit" criteria affect their financial aid eligibility.
   D. The applicant will receive and provide documentation of a high school diploma or GED certificate before a second quarter of enrollment is allowed.
2. Transfer students who have been academically suspended from another regionally-accredited postsecondary institution may be considered for admission on the basis of a written appeal. If approved for admission, the student will be admitted on academic probation and will be required to meet the college's standards of satisfactory academic progress to continue enrollment.
3. Transfer students who have been suspended from another institution for disciplinary reasons may be considered for admission only on the basis of a written appeal.

PROCEDURE FOR ADMISSIONS

1. A student eligible to enroll must obtain an application from the Admissions Office (Room A-110). The application must be completed in full, signed, and forwarded to the college.
2. Applicants must take the ASSET placement test given by appointment through the Admissions Office. This test is used as an aid in determining the applicant's potential in a program and in course scheduling. Personal counseling is available.
3. Students approved for entry will be notified and provided directions for pre-registration by the Registrar's Office.
4. High school transcripts, college transcripts, and/or health forms will be required to maintain enrollment status.
5. Transfer students must furnish an official transcript of all work attempted at all other institutions.
6. Transfer credit for students on academic probation will only be considered on courses with a grade of "C" or better from other accredited postsecondary institutions.
7. Only equivalent courses are considered for credit transfer.
8. Credit granted will be based on a comprehensive evaluation of the student's ability and training.
9. The student must complete the final quarter of work on campus to qualify for graduation.

ADVANCED PLACEMENT

The college offers students who enter an occupational program, and who can document previous education or experience in the occupation, an opportunity to pass challenge examinations and receive advanced standing credit from the college. Students desiring to apply for advanced placement should do so by submitting a written request to the registrar prior to enrolling.

PRE-REGISTRATION

Students can pre-register each quarter prior to the beginning of classes. New students who have been accepted for admission will be notified when to pre-register. Due to the demand for many programs, it is imperative that new students pre-register during the period designated. Students who are unable to pre-register during the period assigned or who decide not to enroll should contact the Registrar's Office immediately.

To pre-register a student must have a class schedule approved by his or her faculty advisor. Registration is completed with the payment of tuition or through arrangements for payment approved by the college's Financial Aid Office. Places cannot be reserved in classes, and students are not authorized to attend classes, until financial obligations are met.

All students are required to pre-register for each subsequent quarter. Completion of pre-registration within the period designated for pre-registration of presently enrolled students will assure that classroom and laboratory space will remain available for those students to continue in their programs. The college reserves the right to make adjustments in class schedules and to cancel classes for which there is not sufficient enrollment.

Students who pre-register and do not attend classes or students who fail to meet scholastic requirements for continuation in the program will receive a refund according to the State-adopted policy.

The Admissions Office is open 8 am to 8 pm, Monday through Thursday and from 8 am to 4 pm on Friday.
EVALUATION OF STUDENTS

The instructor will evaluate students through tests, quizzes (oral or written), projects, and work assignments. Scheduled announced final examinations will be given during the last week of each quarter.

Students who miss tests and examinations have the responsibility of making arrangements with their instructors regarding make-up exams.

The criteria for determining grades are daily work, periodic examinations, initiative, and neatness of work.

GRADING SYSTEM

Bessemer State Technical College computes quarterly and cumulative grade point averages on a 4.0 scale.

Each course for which a student has registered will be assigned one of the following letter grades:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (90 - 100)</td>
<td>Excellent</td>
<td>4 points</td>
</tr>
<tr>
<td>B (80 - 89)</td>
<td>Good</td>
<td>3 points</td>
</tr>
<tr>
<td>C (70 - 79)</td>
<td>Average</td>
<td>2 points</td>
</tr>
<tr>
<td>D (60 - 69)</td>
<td>Poor</td>
<td>1 point</td>
</tr>
<tr>
<td>F (Below 60)</td>
<td>Failure</td>
<td>0 points</td>
</tr>
<tr>
<td>FA</td>
<td>Failure for lack of attendance</td>
<td>0 points</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Required work must be made up no later than the first four weeks of the following quarter.</td>
<td>0 points</td>
</tr>
<tr>
<td>AU</td>
<td>Audit. Course taken for no credit. Must be declared prior to the end of the drop/add period and is irrevocable.</td>
<td>0 points</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal from a course within three weeks of the quarter.</td>
<td>0 points</td>
</tr>
<tr>
<td>WP</td>
<td>Official withdrawal from a course after three weeks and which the student is passing at the time of withdrawal.</td>
<td>0 points</td>
</tr>
<tr>
<td>WF</td>
<td>Official withdrawal from a course after three weeks at which the student is failing at the time of withdrawal. Credit hours will be averaged into the grade point average.</td>
<td>0 points</td>
</tr>
</tbody>
</table>

The following grades may be assigned to institutional credit courses such as developmental courses and Training for Business/Industry courses:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>0 points</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td>0 points</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td>0 points</td>
</tr>
</tbody>
</table>

COURSE AUDITING

Students wishing to take college courses without credit may do so by a process called auditing. Auditors are not required to complete the regular admissions process but must pay the appropriate tuition and fees for the courses audited.

Auditors will be listed on the official class rolls, but are not required to take tests, final examinations, or make reports. The grade for audit will be shown on the student's transcript as "AU." Audit students are not eligible for veterans benefits or federal financial assistance.

Students who desire to change from credit to audit or audit to credit must officially request a status change before the end of the drop/add period.

STANDARDS OF ACADEMIC PROGRESS

Standards of Progress Policy

Required GPA Levels For Students According To Number Of Hours Attempted At The Institution

1. Students who have attempted 12-32 credit hours at the institution must maintain a 1.5 Cumulative Grade Point Average.
2. Students who have attempted 33-48 credit hours at the institution must maintain a 1.75 Cumulative Grade Point Average.
3. Students who have attempted 49 or more credit hours at the institution must maintain a 2.0 Cumulative Grade Point Average.

Intervention For Student Success

When a student is placed on Academic Warning, Academic Probation, One Quarter Academic Suspension, or One Calendar Year Academic Suspension, college officials may provide intervention for the student by taking steps including but not limited to, imposing maximum course loads, requiring a study skills course, and/or prescribing other specific courses.

SCHOLASTIC RECOGNITION

Bessemer State Technical College provides selected academic honors to recognize and promote notable student achievements. These academic honors include: (1) Dean's List and (2) President's List.

Dean's List

A Dean's List is compiled at the end of each quarter. Requirements for the Dean's List are (1) a quarterly grade point average of 3.5 or above but below 4.0 and (2) completion of a minimum quarterly course load of 12 quarter credit hours of college-level work. Developmental (pre-collegiate) courses carrying grades of A-F will be calculated in the quarterly GPA; however, developmental courses will not count toward the minimum course load requirement.
GRADUATION REQUIREMENTS

A student successfully completing his/her course requirements will be awarded either an Associate in Applied Technology Degree, a diploma or a certificate depending on the courses completed.

Graduation exercises are held in June of each year.

All fees and bills for services rendered by the college and a $10 award fee must be paid to the Cashier's Office before a student is granted an Associate in Applied Technology Degree or a diploma.

Each Associate in Applied Technology Degree, diploma or certificate will stipulate the specialty area in which it is earned.

The student’s advisor must submit a request to the registrar recommending the student for either an Associate in Applied Technology Degree, diploma or certificate.

It is the responsibility of each student to check with his/her major advisor in scheduling classes in order to complete graduation requirements.

Associate In Applied Technology Degree

A student shall be awarded the Associate in Applied Technology degree upon satisfactory completion of the requirements of the specific program as specified by the college and the State Board of Education.

A student must:

1. Satisfactorily complete 96 quarter hours or more of college credit in an approved program of study, including prescribed general education courses.
2. Earn a 2.0 cumulative grade point average in all courses attempted at the college. The calculation of the grade point average for graduation shall not include grades earned in institutional credit courses. A course may be counted only once for purposes of meeting graduation requirements.
3. Complete at least 24 quarter credit hours at the college granting the degree.
4. Be enrolled during the quarter in which the degree is earned; or, with approval of the Dean of Instruction, within a calendar year of the last quarter of attendance receive the degree by transferring from a regionally accredited institution no more than the last ten credit hours required for completion of the program with a minimum grade of "C" in the courses transferred.
5. Fulfill all financial obligations to the college.

Diplomas and Certificates

A student may be granted a diploma or certificate upon satisfactory completion of the requirements of the specific program as specified by the college in accordance with policies of the State Board of Education.

A student must:

1. Satisfactorily complete an approved program of study.
2. Earn a 2.0 cumulative grade point average in all courses attempted at the college. The calculation of the grade point average for graduation shall not include grades earned in institutional credit courses. All grades in repeated courses shall be averaged into the grade point average; however, a course may be counted only once for purposes of meeting graduation requirements.
3. Complete at least one-half of the total quarter credit hours required in the program at the college granting the award.
4. Be enrolled during the quarter in which the award is earned or, with approval of the Dean of Instruction and within a calendar year of the last quarter of attendance, transfer from a regionally accredited institution no more than the last ten hours required for completion of the program, with a minimum grade of "C" in the courses transferred.
5. Fulfill all financial obligations to the college.

ACADEMIC HONORS

The college provides academic honors to recognize and promote notable student achievement. These academic honors include: (1) Graduation Honors for Degrees to include Graduation with Honors, Graduation with High Honors, and Graduation with Highest Honors; and (2) Graduation Honors for Other Formal Awards (Diplomas and Certificates) to include Graduation with Distinction.

Graduation Honors for Degrees

Superior academic achievement by graduating students shall be recognized by the following designations on transcripts:

Graduation with Honors
(or Cum Laude) .................................................. 3.50 to 3.69 GPA

Graduation with High Honors
(Magna Cum Laude) ........................................... 3.70 to 3.89 GPA

Graduation with Highest Honors
(Summa Cum Laude) ............................................ 3.90 to 4.00 GPA

Graduation Honors for Other Formal Awards
(Diploma or Certificate)

Graduation with Distinction .................................. 3.50 to 4.00 GPA

NOTE: Calculation of the grade point average (GPA) for graduation honors shall be identical to that method used to calculate the GPA to fulfill graduation requirements for the degree, diploma, or certificate being earned. In addition, in order to be eligible for a graduation honor, the student must have completed a minimum of 48 quarter credit hours at the college conferring the degree or other formal award.

TRANSFER STUDENTS

Applicants who have previously attended another regionally accredited postsecondary institution will be considered a transfer student and will be required to furnish official transcripts of all work attempted at all said institutions.

Transfer students who meet requirements for admission to courses creditable toward an Associate Degree shall be classified as "Degree-Eligible" students. Transfer students who do not meet these requirements shall be classified as "Non-Degree-Eligible" students.

Applicants who have been suspended from another institution for academic or disciplinary reasons will not be considered for admission except upon appeal to the college admissions committee.

Unconditional Admission of Transfer Students

1. For Unconditional Admission, transfer students must have submitted to the college an application for admission and official transcripts from all regionally accredited postsecondary institutions attended and, as designated by the institution, any other documents required for first time college students.
2. Transfer students who attend another postsecondary institution and who wish to earn credits for transfer to that parent institution may be admitted to the college as transient students. The students must submit an application for admission and an official letter from the institution they have been attending which certifies that the credits they earn at the college will be accepted as a part of their academic program. Such students are not required to file transcripts of their previously earned credits at other postsecondary institutions.

3. Applicants who have completed the baccalaureate degree will be required to submit only the transcript from the institution granting the baccalaureate degree.

**Conditional Admissions of Transfer Students**

Transfer students who do not have on file official transcripts from all postsecondary institutions attended and any additional documents required by the institution may be granted Conditional Admission. No transcript will report on the transcript. but the transcript will read CONTINUED COLLEGE PRIOR TO ISSUANCE OF FIRST QUARTER; and a part-time student is enrolled for less than six credit hours per quarter.

If all required admissions records have not been received by the college prior to issuance of first-quarter 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 from the transcript only upon receipt of all required admissions records.

**Initial Academic Status of Transfer Students**

1. Transfer students whose cumulative grade point average at the transfer institution(s) is 2.0 or above on a 4.0 scale will be admitted on Clear academic status.

2. Transfer students whose cumulative grade point average at the transfer institution(s) is less than 2.0 on a 4.0 scale will be admitted only on Academic Probation. The transcript will read ADMITTED ON ACADEMIC PROBATION.

3. Applicants who have been academically suspended from another regionally accredited postsecondary institution may be admitted as a transfer student only after following the appeal process established at the institution for "native" students who have been academically suspended. If the transfer student is admitted upon appeal, the student will enter the institution on Academic Probation. The transcript will read ADMITTED UPON APPEAL-ACADEMIC PROBATION.

4. A transfer student who is admitted on Clear academic status is subject to the same standards of academic progress as a "native" student. Grades earned at other regionally accredited postsecondary institutions are not included in GPA calculation.

5. A transfer student who is admitted on Academic Probation retains that status until the student has attempted at least 12 credit hours at the institution. If, at the conclusion of the quarter in which the student has attempted a total of 12 or more credit hours at the institution, the Cumulative GPA at the institution is below 1.5, the student is suspended for one quarter. The transcript will read SUSPENDED-ONE QUARTER.

6. If, at the conclusion of the quarter in which the transfer student admitted on Academic Probation has attempted a total of 12 or more credit hours at the institution, the Cumulative GPA at the institution is 1.5 or above, the student's status is Clear.

**General Principles for Transfer of Credit**

1. Courses completed at other regionally accredited postsecondary institutions with a passing grade will be accepted for transfer as potentially creditable toward graduation requirements. Transfer students admitted on academic probation will have course grades of "C" or better only accepted for transfer.

2. Awarding of transfer credit to fulfill graduation requirements will be based on applicability of the credits to the requirements of the degree sought.

3. Credit may be extended based on a comprehensive evaluation of demonstrated and documented competencies and previous formal training.

**CLASSIFICATION OF STUDENTS**

A full-time student is one enrolled for at least 12 credit hours per quarter; a half-time student is one enrolled for six quarter hours per quarter; and a part-time student is enrolled for less than six credit hours per quarter.

**ATTENDANCE REQUIREMENTS**

The attendance policy applies to all students enrolled at Bessemer State Technical College. If a student decides to withdraw from a class, he or she must complete an official "Drop/Add" form. If the student leaves school without officially withdrawing, it is the responsibility of the instructor to drop the student as soon as it is determined that the student will not return or upon certain number of absences from class, whichever is sooner.

Absences and tardies should be rare and occur only under the most compelling circumstances. Students enrolled in classes that meet three (3) days per week must be dropped immediately after three (3) consecutive absences or six (6) total absences per quarter. Students enrolled in classes meeting two (2) days weekly must be dropped after two (2) consecutive absences or four (4) total absences per quarter. Students enrolled in classes meeting one (1) day per week must be dropped after two (2) consecutive absences or three (3) total absences per quarter.

Three (3) tardies count as an absence. A student is tardy when he/she is more than five (5) minutes late for a scheduled class.

In the event an instructor is not present when the class is scheduled to convene, students must remain in the classroom until the instructor arrives or until official word is received.

A student who exhibits poor attendance may be referred to the college counselor for a conference. Students who violate the policy will be subject to termination. Any student who anticipates being absent for any extended length of time should notify his/her instructor(s) immediately.

The decision to reinstate a student dropped due to excessive absences will be based upon the reason for the period of absences and an evaluation by the instructor to determine if the student has demonstrated the ability to satisfactorily complete the course requirements for the quarter. A student is responsible for arranging with his/her instructor to make up any lab or classwork missed when he/she is absent from class.

When a student who has been terminated for excessive absences wishes to enroll during a subsequent quarter, a re-entry form must be filled out by the student and approval given by the Director of Admissions and/or Night Coordinator before the student may re-enter at the beginning of the next quarter.

Termination or withdrawal from a class can have a bearing on receipt of federal financial aid. Please consult the Financial Aid Office for more information.

**RE-ENTRIES**

A former student who is a non-graduate of the college and who desires to continue at Bessemer State Technical College must complete a re-entry request which is available in the Admissions Office. Graduates of the college who desire to enter another program also must submit a re-entry form. Priority for enrollment will be given to a non-graduate who is returning to complete a program.
Bessemer State Technical College is part of the state system of 2-year colleges authorized by the Alabama Legislature under Act No. 93, approved May 3, 1963. This institution is under the supervision of the Alabama State Board of Education. The president of the college is directly responsible to the State Board of Education through the Department of Postsecondary Education, Dr. Fred Gainous, Chancellor.

ALABAMA STATE BOARD OF EDUCATION
Governor Jim Folsom, Chairman
Dr. Wayne Teague, State Superintendent,
Executive Officer and Secretary

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Steadman S. Shealy, Jr. .......... 2nd District
Dan Cleckler ................. 3rd District
Dr. Ethel H. Hall ................... 4th District
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Bettye Fine Collins .......... 6th District
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OFFICE OF THE PRESIDENT
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AND ACADEMIC SUPPORT
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Secretary .................................... Lori Wright

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Dean ......................................... Ed Blake
Secretary .................................... Wanda Natale

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Career Planning and Employment ........................................ Sunda Smith
Counselor ................................... Sherry Quan
Administrative Assistant ........................................ Gina Crompton

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Coordinator .............................. Jim Natale
Coordinator of High School Relations .......... Rick Sandretto
Counselor ................................... Jerome Levy
Secretary .................................... Phyllis Smith

OFFICE OF BUSINESS MANAGER
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Secretary/Data Entry ..................... Carol Champion
Bookkeeper .................................... Ann Hamilton
Accountant .................................... Katherine Long
Staff Accountant/ADA Coord .......... Mickey Roy
Facility/Staff Secretary .................. Regina Martin
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Programmer .................................... Jamie Glass
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Secretary ................................. Nancy Copeland

OFFICE OF CURRICULUM DEVELOPMENT
Curriculum Specialist .................. Ralph Bearse

OFFICE OF DISPLACED HOMEMAKERS
AND SEX BIAS ELIMINATION
Director ................................. Barbara Hosea-Studdard
Secretary ................................. Jerri Encalade

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Director of Short-Term and Continuing Education .......... Dennis Winn
Evening Records ................................ Bonnie Simpson

ALLIED HEALTH SERVICES
Coordinator ............................... Jessica Cannon
Secretary .................................... Dorothy Wall
Clerical Facilitator .......................... Brenda McClain

OFFICE OF REGISTRAR
Registrar .................................... Ruth Love

OFFICE OF STUDENT FINANCIAL SERVICES
Director of Financial Services and Institutional Development .......... Deborah Marcus
Assistant Financial Aid Director/JTPA Coordinator ............... Cynthia Anthony
JTPA Secretary ................................ Harriet Perez
Veterans/Financial Aid Assn .................................... Sharon Williams
Secretary .................................... Shirley Roy

OFFICE OF STUDENT SUPPORT SERVICES
Director ........................................ Mattie Hendrix
Counselor/Coordinator ............................ Jewel Adeile
Secretary .................................... Deloris Smith

OFFICE OF TRAINING FOR BUSINESS AND INDUSTRY
Director ........................................ Al Craig
Secretary .................................... Frances Hannah

BOOKSTORE
Manager ................................. Greg Murray
Assistant Bookstore Manager ............ Lillie Pearson
Shipping & Receiving Clerk ............... Joe Swedenburg

GENERAL MOTORS TRAINING CENTER
Manager ........................................ Mike Hobson
Administrative Assistant .................... Audrey Johnson
Secretary .................................... Betty Ramey

MAINTENANCE
Director of Plant Operations .................. John Hayes
Dispatcher .................................... Betty Scurluck

SECURITY
Security Guard/Inventory Control Officer ....................... Joel McFall
Evening Security Guard ........................ James Powell
FULL-TIME FACULTY

Ruby D. Lewis  .............. Dental Assisting
                    B.S., Athens State College; CDA and RDA

David Mitchell  .............. Automotive Service Technology
                    B.S., Eastern Kentucky University

Rick Partain  .............. Computer Science Technology
                    B.S., Samford University; M.S., University of Alabama

Walter R. Pyle  .............. Diesel Mechanics
                    B.S.Ed., Athens State College

Charles Ramey II  ....... Computer Science Technology
                    A.A., East Central Jr. College; B.S., Athens State College

Fred Ranelli  .............. Computer Science Technology
                    B.A., University of Alabama

Clifford Ray  .............. Air Conditioning/Refrigeration
                    B.S.Ed., Athens State College; M.S., Alabama A and M University

Marie Annette Ray  ........ Student Support Services
                    B.S., University of Missouri; M.A.T., University of Montevallo

Rich Raymond  .............. Electronics Technology
                    A.A.T., Bessemer State Technical College

Bobby Reese  .............. Small Engine Repair

Lesley Romano  .............. Commercial Food Service
                    H.N.D., Queens College

Sharon Romine  .............. Licensed Practical Nursing
                    B.S.N., M.S.N., University of Alabama

Carol Scroggins  .............. Licensed Practical Nursing
                    B.S., Athens State College

Barbara Warren  .............. Accounting
                    B.S., Auburn University; B.S., Samford University; CPA

Estelle Willingham  ........ Adult Basic Education
                    A.B., Birmingham-Southern College; M.A., Samford College

Allen Young  .............. Retailing and Merchandising
                    B.S., East Tennessee State University; M.A., University of Montevallo
PART-TIME FACULTY

Susan Atkinson .............. Licensed Practical Nursing
B.S.N., University of Alabama/Birmingham

Kendal E. Baker .............. Computer Science Technology
B.S., Auburn University

Barbara Bailey ................ General Education
B.A., M.A., Samford University

Anita Bice .................... Commercial Art
A.A.T., American Academy of Art; B.A., Samford University

Robert Britton ............... Air Conditioning/Refrigeration

Richard Butcke ............... Drafting Technology
A.A., Jackson Community College; B.S., M.A., Michigan State University

Michael Carter .............. Electronics Technology
B.S., M.S., Memphis State

Jill Chambless .............. General Education
B.A., M.A., University of Alabama

Susie Chandler .............. Licensed Practical Nursing
B.S.N., University of Alabama/Birmingham

Judy Cole ..................... Licensed Practical Nursing
A.P.N., Meridian Junior College; B.S., University of Southern Mississippi

Cathy Cummins .............. Licensed Practical Nursing
A.D.N., Jefferson State Junior College

Bob Dennis .................... General Education
A.A.T., Bessemer State Technical College

Patricia Douglas ............ General Education
B.S., Florence State University

Roy Dunlap ................... Electronics Technology
A.A.S., Electronic Institute

Charles Elam .................. Automotive Mechanics
A.A.S., Shelton Community College

Joyce Fox ...................... General Education
B.S., University of Montevallo; M.A., University of Alabama

Bill Franklin ................ Emergency Medical Technician
A.A.S., Alabama Christian College

Gerald George ............... Electronics Technology
C.T., Bessemer State Technical College

Bill Goodloe .................. Computer Science Technology
B.S., Auburn University

Terry Goodwin .............. General Education
B.S., University of Montevallo

Perry Gothard ............... Machine Shop Technology
C.T., Bessemer State Technical College

Cynthia Grimes .............. Licensed Practical Nursing
B.A., University of Alabama; B.S., University of Alabama in Birmingham

James Harris ................ General Education
B.A., Vanderbilt University; Ph.D., Middle Tennessee State University

Milo Heis .................... Air Conditioning and Refrigeration

Robert Hill .................... Emergency Medical Technician
A.D.N., Jefferson State Junior College; B.S., University of Alabama

Karen Hopping .............. General Education
B.A., University of Montevallo

Lowell S. Jones ............. General Education
C.T., Coosa Valley Technical; B.S., Berry College

Kathleen Kennedy .......... Office Administration
B.A., Lee College

Roy Ledford .................. Welding
D.P.L., Bessemer State Technical College

Thomas Loveless ............ Air Conditioning/Refrigeration
C.T., Shelby County Area Vocational Center

Sharon Morgan .............. General Education
B.S., University of Montevallo

Sylvia Parsons .............. Nursing Assistant
A.S., Walker College; B.S.N., University of Alabama in Birmingham

Ronald Robb ................ Building Maintenance

Frances Stewart ............. General Education
B.A., Birmingham-Southern College; M.A., University of Alabama/Birmingham

Ronald Stokes .............. Accounting
B.S., Troy State University; M.T.A., University of Alabama

Mary Stringfellow .......... General Education
B.S., University of Alabama; M.A., University of Alabama/Birmingham

Lillie Talton ................ Licensed Practical Nursing
B.S.N., Dillard University

Paul Terrell ................ Building Maintenance
B.S.E.E., University of Alabama

Larry Thornton ............. Automotive Mechanics
B.S. Ed., Athens State College

Lorine Waller .............. Licensed Practical Nursing
B.S.N., University of Alabama/Birmingham

Thomas White .............. Drafting Technology
D.P.L., Tennessee Valley Vocational Technical School; B.A., University of Alabama in Huntsville

Ralph Whimore ............. Building Maintenance
B.A., M.A., University of Alabama/Birmingham

Gregory Wood .............. Electronics Technology
A.A.S., Community College of Allegheny County; A.S., Electronics Institute; B.S., Robert Morris University

William Yates II ............ Welding
B.S., Auburn University; M.B.A., University of Alabama/Birmingham

Willodean Young ........... Licensed Practical Nursing
B.S.N., Samford University
FINANCIAL INFORMATION

TUITION AND FEES
The following tuition and fees are applicable to students. Tuition and fee rates are subject to change.

Tuition:
- First 12 credit hours: $22.00 per credit hour
- All credit hours over 12: $11.00 per credit hour

Fees:
- Instructional: $1.00 per credit hour
- Facility Renewal: $1.00 per credit hour (to a maximum of $15.00)
- Transcript: $3.00 (first copy free)
- Student Accident Insurance: $5.00 per quarter
- Malpractice Insurance: $15.00 per quarter
- Health Occupations Only: $15.00 per quarter
- Late Registration (Assessed after the first day of quarter): $10.00
- Returned Check: $15.00
- Diploma: $10.00

(Note: Tuition and fees for out-of-state and international students are one and three-fourths times that for in-state students.)

REFUND POLICY
Students registering and paying tuition will receive a refund under the following conditions:
1. A student who registers, pays tuition, and does not attend any classes will be refunded the full amount paid.
2. A student who withdraws totally during the first week of classes will be refunded 75 percent of his/her tuition.
3. A student who withdraws totally during the second week of classes will be refunded 50 percent of his/her tuition.
4. A student who withdraws totally during the third week of classes will be refunded 25 percent of his/her tuition.
5. No refunds will be made after more than three weeks of attendance.
6. Late registration fees and student insurance premiums are not refundable.
7. Any student desiring a refund must make application at the business office within two weeks after the last day of attendance.
8. If the student received federal financial aid, a portion or all of the refund may be applied to repayment of the aid program.
9. Students who add credit hours during the drop/add period will be charged additional tuition at the applicable rate.
10. The refund policy is applicable to tuition, the instructional fee, and the facility renewal fee.

Partial Withdrawal
Students who do not completely withdraw from the college but drop a class during the regular drop/add period will be refunded the difference in the tuition paid and the tuition rate applicable to the reduced number of hours, including fees appropriate to the classes dropped. There is no refund due to a student who partially withdraws after the official drop/add period.

FINANCIAL ASSISTANCE PROGRAMS
Through the Office of Student Financial Assistance, located in Room 106 of Building A, Bessemer State Technical College offers a variety of federal, state, and institutional financial aid programs. Financial Aid Office hours are 7:30 am - 4 pm weekdays and 5-7 pm Monday and Tuesday nights. Students needing financial assistance with the costs of attending college are encouraged to visit the office to obtain applications and more information.

Applying for Federal Financial Aid: Three Easy Steps!
1. Come by the Office of Student Financial Assistance and pick up a free Application for Federal Student Aid which covers the academic year (Summer, Fall, Winter, and Spring terms) beginning with summer term. Be sure to read the instructions carefully while completing the application. If you need help in completing the form, bring your federal tax return to the Financial Aid Office and someone will be available to assist you.
2. After the application is completed, mail it to the Federal Student Aid Processing Center in the envelope provided in the packet. Your eligibility for the Federal Pell Grant and other federal financial aid will be assessed by using a national formula that takes into account your income, assets, family size, and, if applicable, your parent's financial information.
3. Approximately four to six weeks after your application has been received by the federal processor, you should receive a three-part Student Aid Report (SAR) in the mail. All copies of the SAR should be turned in to the Office of Student Financial Assistance as soon as possible. At that time, you will complete the "Student's Use Box" on the back of the SAR Part I, complete a Student Data Form, and may be asked to provide other information (copies of tax returns, verification work sheet, etc.)

NOTE: Funds received by grant and work programs are not repayable. However, if a student drops out or reduces enrollment, a grant overpayment may occur. All overpayments must be repaid before a student may re-enter the college. Funds received from loan programs must be repaid according to the terms and conditions of the loan.

General Eligibility Criteria:
1. Must have a high school diploma or GED or meet other U.S. Department of Education requirements.
2. Must be pursuing a certificate, diploma, or degree in an eligible program of study.
3. Must be a citizen or eligible non-citizen of the U.S.
4. Must demonstrate financial need.
5. Must maintain satisfactory progress in course of study.
6. Must not be in default on an educational loan and not owe a repayment on a grant.
7. Must sign a statement of Selective Service registration status.
8. Must sign a statement of educational purpose declaring that funds received will be used only for expenses related to attending school.
9. Must have a Social Security Number.

FEDERAL AID PROGRAMS
Federal Pell Grant Program. This major federal grant program ranges in value from $100 to $575 per quarter for the four quarters in the academic year. Payments are made by check directly to the student each quarter—about halfway through the quarter. Waivers are available to...
students who are not able to pay tuition costs during pre-registration. After enrollment, books and supplies may also be charged on the waiver up to the value of the Pell grant. This is a voluntary procedure by which direct school expenses are deducted from the student's quarterly check.

Federal Supplemental Educational Opportunity Grant (FSEOG). This federal grant program is available to Federal Pell Grant recipients with exceptional financial need. Because funding in this program is very limited, many students who apply and are otherwise eligible will not be awarded.

State Student Incentive Grant (SSIG). This combination federal/state grant is also available only to exceptionally needy students. Because funding in this program is very limited, not all students who apply and are otherwise eligible will be awarded.

Federal Work-Study Program (FWSP). This job program provides part-time work opportunities for students who show financial need. All job placements are on campus, and students earn minimum wage while working 8-20 hours weekly. Job placement is based on job availability and skills required, as well as the student's financial need and desire to work.

OTHER FINANCIAL ASSISTANCE

Academic Scholarships which cover the cost of tuition are available to outstanding currently enrolled students, high school seniors, and Vocational Industrial Clubs of American (VICA) tournament winners. The scholarships are renewable quarterly if recipients maintain an overall GPA of 3.0 (B) or above.

Senior Adult Scholarships which cover the cost of tuition are available to residents of Alabama, aged 60 and above, who are taking credit courses.

Veterans Benefits are available for eligible students. See the Office of Veterans Affairs (VA) section for more information.

Job Training Partnerships Act (JTPA) benefits are available for eligible unemployed or economically disadvantaged students. Students must receive approval to participate from the State Employment Service Office and be selected as a participant by Bessemer State before receiving benefits from JTPA.

Alabama National Guard Education Assistance Program (ANGEAP) benefits of up to $1,000 per year are available for students in the Alabama National Guard. Applications must be obtained and completed first by a Unit Commander. Only students enrolled in Associate Degree programs are eligible.

Sears and PatVacca Emergency Loans are limited institutionally controlled funds which are available for students needing help to pay tuition. Applicants must be determined eligible for financial aid. Repayment is due within 30 days of loan receipt.

STUDENT RIGHTS:

Students attending Bessemer State Technical College on financial aid have certain rights and responsibilities pertaining to their awards. The student has the right to ask the college:

-- What financial assistance is available, including information on all federal, state, and institutional financial aid programs.
-- What the deadlines are for submitting applications for each of the financial aid programs available.
-- What the cost of attendance is, and what the refund policy is.
-- What criteria it uses to select financial aid recipients.
-- How financial need is determined. This process includes how costs for tuition and fees, room and board, books and supplies, personal and miscellaneous expenses, etc., are considered in your budget.
-- What resources (such as parental contribution, other financial aid, your assets, etc.) are considered in the calculation of your need.
-- How much of your financial need, as determined by the institution, has been met.
-- To explain the various programs in his/her student aid package.
-- What portion of the financial aid received must be repaid and what portion is grant aid.
-- How the school determines whether the student is making satisfactory progress, and what happens if he/she is not.

STUDENT RESPONSIBILITIES:

It is the student's responsibility to:

-- Review and consider all information about a school's program of study before enrolling.
-- Pay special attention to the Free Application for Federal Student Aid. Complete it accurately and submit it on time to the right place. Errors can result in long delays in receipt of financial aid. Intentional misrepresentation of information on application forms for federal financial aid is a violation of law and is considered a criminal offense subject to penalties under the Criminal Code of the United States.
-- Return all additional documentation, corrections, and/or new information requested by either the financial aid office or the agency to which the application was submitted.
-- Read and understand all forms he/she is asked to sign and keep copies of them.
-- Accept responsibility for all agreements signed.
-- Perform in a satisfactory manner the work that is agreed upon in accepting a Federal Work-Study award.
-- Know and comply with the deadlines for application and reapplication for aid.
-- Know and comply with the school's refund procedures.
-- Notify the Registrar's Office in writing whenever there is a change of name or address by any student on aid.

Students applying for assistance may be required to submit copies of tax returns, proof of financial independence from parents, household size, number in college and any other item identified by the Student Financial Assistance Office.

The amount of aid a student receives is based, in part, on enrollment level. Twelve credit hours or more is considered full time, 9-11 hours is 3/4 time, and 6-8 hours is 1/2 time. Hours taken for audit are not considered in determining enrollment.

SATISFACTORY ACADEMIC PROGRESS POLICY FOR FEDERAL FINANCIAL AID

Students receiving federal financial aid through the Federal Pell Grant, Federal Supplemental Education Opportunity Grant (FSEOG), State Grant (SSIG), and/or Federal Work Study Program (CWSP), must make satisfactory progress toward a degree or certificate according to federal regulations to receive and retain eligibility for these funds. There are three components to satisfactory academic progress as explained...
1. Students must maintain a grade point average each term of at least 2.0 (“C”) overall for all classes attempted.
2. Students must successfully complete with a grade of “D” or better at least 67% of the classes attempted each quarter.

A student in violation of either of these two components will be placed on probation for one quarter. During this probationary term, the student will continue to receive financial aid but must improve the GPA to a 2.0 overall and in the major course of study and successfully complete at least 67% of the hours attempted. Failure to do so will result in termination of financial aid.

A student wishing to be considered for financial aid after termination must bring his academic record into compliance with the above policy while attending school at his/her own expense. When the student is in compliance with the policy again, he must request in writing that his financial aid be reinstated.

3. Students must also complete program requirements within a certain time frame. Bessemer State will allow students to receive federal financial aid for up to 1.5 times the normal number of terms required for the degree or certificate. This applies to both full-time and part-time students.

Examples: Normal Length of Program Number of Quarters Allowed on Financial Aid to Complete Program

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</table>

OTHER IMPORTANT INFORMATION

1. Excessive withdrawals, incompletes, and/or repeated classes may also result in a probationary quarter or termination of federal financial aid.

2. Students wishing to appeal the decision to terminate federal financial aid may do so by writing the Director of Student Financial Assistance explaining the reason(s) the student failed to meet the requirements. Documentation to support the reason(s) may be required.

OFFICE OF VETERANS AFFAIRS

Bessemer Tech maintains a full-time Office of Veterans Affairs (OVA). This office assists the veteran in minimizing the problems of adaptation to an educational environment. Services provided by the Office of Veterans Affairs include counseling, referral services, general and specific information about all available benefits, and assistance in filing claims for such benefits. The Office of Veterans Affairs is located in Room 106 of Building A.

All persons who will be using VA educational assistance while enrolled at Bessemer State Technical College should contact the Office of Veterans Affairs as soon as admission requirements are completed. All questions concerning regulations governing the use of VA educational assistance should be directed to that office.

After the course and beginning date have been determined, the student should come by the Office of Veterans Affairs with his/her discharge papers (DD Form 214 or NOBE), marriage license, divorce decree if the student or spouse had previous marriages, and birth certificates of children. If VA educational benefits have been used before, also bring your VA file number. At this time, the student will meet with the Veterans Affairs Advisor, and the proper forms and applications for educational benefits will be completed. If the paperwork is submitted to the VA at least six weeks prior to enrollment, advance pay for the first two months of school attendance may be received. This advance pay check will be sent to the college; all other checks will go to the student's home. Monthly VA assistance is paid to the student in arrears; this means that payment will occur after a month has been completed rather than in advance. Each quarter the student will receive an enrollment certification form. He/she should sign this form and send it to the VA immediately. This form generates the next check, so it should be returned promptly.

Students going on military leave will be responsible to notify instructor(s) of their orders and will be terminated from all classes. Upon return a re-entry is processed. If the student does not return within the designated time frame, the VA is notified of the termination.

Students receiving benefits are required to pre-register for classes. Failure to meet this requirement may result in termination or delay of your monthly benefits.

VA benefits at Bessemer State Technical College are based on contact (clock) hours of attendance by the veteran if the veteran is in a diploma or certificate program. Twenty-two contact hours per week is full-time and 11 hours is half-time. Benefits are based on credit hours if the veteran is enrolled in an associate degree program. Twelve credit hours is full-time and six credit hours is half-time.

The Veterans Administration has adopted a new policy which states that a veteran is not entitled to benefits for any period for which credit toward graduation will not be received. This means should the student terminate training before the end of any quarter, he/she would be liable to repay any benefits received for that quarter. The veteran should inform the Veterans Administration of any change in your major, class schedule, or termination from classes.

Please note that any courses taken outside the required coursework in a student’s program of study and repeated courses for which a satisfactory grade has already been received, will not be eligible for VA benefits. The “IP” grade assigned in some developmental classes is considered unsatisfactory for VA purposes.

If any veteran should encounter problems during training at Bessemer State Technical College please contact the college's Office of Veteran Affairs as soon as the problem becomes evident.

ADVANCE PAYMENT FOR VETERANS

An advance payment request must be made at least six (6) weeks prior to enrollment for the advance payment to be made during preregistration.

JOB TRAINING PARTNERSHIP ACT (JTPA)

JTPA students are enrolled under requirements established by federal and state regulations. These policies are made available to the JTPA students through the college’s Financial Assistance Office of the local JTPA office.
STUDENT DEVELOPMENT SERVICES

GUIDANCE AND COUNSELING
Students are encouraged to utilize services of the counselors in Student Development Services in regards to educational, vocational, or personal problems. Resource materials containing vocational and occupational information, as well as guidelines for college, are available.

Counselors and faculty advisors are available to assist students in making relevant career decisions and in selecting an appropriate course of study.

Counseling is available in Student Development Services, Room 105 and Admissions Room 112 of Building A. Admission advisement is from 8:00 am to 4:00 pm or by appointment.

ACADEMIC ADVISEMENT
The close student-faculty association at Bessemer State Technical College is conducive to a student’s learning and is beneficial to growth and maturity. The services of faculty advisors are available to every student. The faculty advisor is familiar with the college and with the career interest of the student and will assist the student in: (1) arranging a program of studies and a schedule of classes, (2) planning for long-range educational goals, (3) identifying employment opportunities in the area which he/she is trained.

STUDENT ORIENTATION
All first-time college students who attend day classes are required to enroll in the college’s orientation course. This one credit hour course meets once each week for one quarter and is designed to provide the entering student an overview of the college. Topics included in the course are: student financial aspects, college policies, study and test taking skills, health maintenance, and job and career seeking skills. Segments of the course are taught by college administrators and staff. Students are provided opportunities to ask questions answered.

Students transferring from two-year or four-year colleges are exempt provided they have completed 10 credit hours or more at that institution.

CAREER PLANNING AND JOB PLACEMENT
It is the philosophy of Bessemer State Tech to provide skill training which will lead to productive employment. Included in this process is the development of the student’s personal traits and habits which are important for job success and awareness of the realities of the job market.

The Placement Office endeavors to maintain an up-to-date file of part-time and full-time jobs for students. These jobs are located with off-campus businesses and organizations in the area. An attempt is made to refer students to positions that will benefit them financially as well as educationally. Job referrals may be obtained upon request.

Other services available include: resume service, job search assistance, civil service announcements for federal, state and county listings, career resource library, including periodicals and other college guides, career and employer literature, job fairs, on-campus interviews and job search workshops.

Students or former students in need of assistance should contact the Placement Office, Building A, Room 105.

STUDENT ACTIVITIES AND ORGANIZATIONS
The name of Bessemer State Technical College may be used by campus organizations for any event on or off campus only when:

1. The event has been approved by the President. A written request explaining details must be submitted to the president, ten (10) college work days prior to the event.

2. The event has approval of the faculty sponsors, who must have full knowledge of the event. Sponsors must be present for the duration of all student events.

STUDENT ACTIVITIES AND ORGANIZATIONS
The faculty encourages extracurricular activities which develop individual initiative, group leadership, and cooperation. Student activities are faculty supervised and must be approved by the president. The college sponsors the following student organizations.

VICA (Vocational Industrial Clubs of America)
PBL (Phi Beta Lambda)
Dental Assistant
PSI (Professional Secretaries International)
Society of Manufacturing Engineers

STUDENT SUPPORT SERVICES
The college’s Student Support Services (SSS) Program is a federally funded project which offers supportive services to low income, first generation college, and disabled students. Services include basic instruction in communication skills, mathematics, and algebra; assistance with study, test taking, and survival skills; tutoring in many subjects; and advisement/counseling.

The goal of the program is to increase the retention and graduation rate of eligible students by providing the support they need to remain in college and successfully complete their courses. Emphasis is on helping participants become better students. The staff is committed to promoting student success.

Advanced or transfer students, who have maintained a high academic average, may apply to become tutors for the program. Successful tutor applicants earn $6.00 per hour while tutoring eligible students.

Students can receive information or apply for services in the Student Support Services Office, Building A, Room 212 or Room 105. Office hours are from 8 am to 4 pm, Monday through Friday or by appointment.

ACCOMMODATIONS FOR DISABILITIES
Special services and considerations are available under Section 504 of the Rehabilitation Act and the American Disabilities Act on an individual basis. It is the responsibility of the student to notify the college of a disability which requires special assistance. Requests for accommodations requiring special materials, services, or assistance should be made prior to the first quarter of enrollment. Day students needing special assistance should contact Mickey Roy in Room A-100 or Mattie Hendrix in Room A-105. Evening students requiring special accommodations should contact Dennis Winn in Room A-110.

For TDD users in Alabama, the Alabama Relay Center is available by calling 1-800-548-2546 (TT only) or 1-800-548-2547 (Voice only). A TDD is available to hearing impaired students in Room A-105.

DISPLACED HOMEMAKER/ SINGLE PARENT SERVICES
The college’s MIRROR program is a federally funded project which provides supportive services to displaced homemakers and single parents. Services include individual and group counseling, career development seminars, field trips, and free tuition to attend eligible occupational training programs. MIRROR assists participants in setting career goals and following a career development plan which will lead to gainful employment.
STUDENT INFORMATION

MOTOR VEHICLE INFORMATION

The campus parking and roadways are designed to facilitate convenient parking and traffic safety. All individuals operating a motor vehicle on the campus should obey all traffic signs. Particular attention should be paid to speed limit, one way, and no parking signs. All vehicles on the campus must display a current parking permit on the driver's side rear window. All parking permits expire at the end of the summer quarter. All traffic violations will result in a fine. Registration decals are issued free of charge in the campus bookstore.

Citations and Fines
1. Traffic and parking violators will be issued a citation. The person in whose name the vehicle is registered will be responsible for all citations issued to his vehicle on the campus.
2. Fines should be paid within three days. Delinquent fines will be doubled and added to the student’s financial account with the college. The student will not be permitted to re-enroll until fines are paid. All fines will be paid at the cashier’s office in the bookstore.
3. A citation will be issued for failure to display the registration decal. A $3.00 fine for each violation will be charged.
4. A student parking in loading zones or faculty parking spaces will be charged a fine of $3.00.
5. A student charged with speeding or reckless driving will be charged a fine of $15.00.
6. Individuals assessed parking and traffic fees may appeal their fee assessments and have their appeals heard by a committee appointed by the president.

STUDENT CONDUCT

The college recognizes that students enrolled at Bessemer State Technical College are both citizens and members of the academic community. Upon enrolling in the college, each student assumes an obligation to conduct himself/herself in a manner compatible with the college’s function as an educational institution. It is expected that students are on campus for serious educational pursuits and that they will conduct themselves so as to assume the responsibilities of citizenship in the campus community.

DUE PROCESS RIGHTS OF STUDENTS

Student Misconduct

The College recognizes the right of both substantive and procedural due process in any matter involving a student misconduct violation. The student is entitled to notice, a hearing and an explanation before being suspended or expelled from the college.

Notice of the charges and their implications will be given orally or in writing prior to the hearing. The list of witnesses and their expected testimony will be given to the accused student prior to the hearing or at the hearing itself.

Because the college is an academic institution and not a court of law, an informal hearing will be conducted by an administrator or committee designated by the president of the college. The chief hearing officer is not bound by the common laws of evidence or civil procedure; therefore, hearsay may be used during the hearing and either a committee or a hearing officer may conduct the hearing.

At the hearing, the student has the right to present his defense against the charges and to produce other oral testimony or written affidavits of witnesses in his behalf. A student may be represented by counsel. If so, the college expects the courtesy of notification. The counsel will be allowed only to advise the student and not to actively participate in the hearing. The college is not required to provide the opportunity for cross-examination but may do so at the discretion of the chief hearing officer.

The president of the college will notify the student of the result of the hearing and the implications of the decision. The decision of the president will be final.

Immediate Temporary Suspension

Immediate temporary suspension will be imposed in a situation when a student’s presence poses a continuing danger to persons or property or an ongoing threat of disrupting the academic process. Notice will be given within 10 hours, and a hearing will be held as soon as practicable, usually within 72 hours.

Academic Failure

The college expects the courtesy of notification. The counselor will be notified if a student begins failing a course it is his responsibility to schedule a conference immediately with his instructor to discuss the matter.

STUDENT GRIEVANCE PROCEDURES

Bessemer State Technical College will make every effort to resolve any problem that develops among students, instructors and student, and college personnel. The organizational structure of the college is designed to facilitate immediate resolution of problems once they are identified; therefore, the college does not condone physical acts of one person against another. Refer to the Student Handbook for procedures.

STUDENT DRESS CODE

1. Students should always be well groomed and dressed appropriately for classes. Being well groomed refers to cleanliness of the body, hair and clothing.
2. Students should not wear any sign, symbol or other mode of dress which would antagonize other students, disrupt the atmosphere of learning, or attract undue attention to the wearer.
3. Students must wear shoes at all times on campus.
4. Hats may be worn in classrooms, laboratories and shops only in accordance with sound safety practices.
5. Students wearing long hair in shop training are required to follow sound health and safety rules of controlling the hair from hanging down in the face and being exposed to moving equipment.
6. All shop instructors are charged with the responsibility of requiring their students to wear appropriate clothes in keeping with good sound safety rules of the Federal Occupational Safety and Health Act.
7. Food Service students must wear a hair covering.

In many programs, students may be encouraged to purchase clothing applicable to the trade or occupation related in their training. Student dress attire should usually reflect the program in which he/she is enrolled. In some programs, protective eye glasses and protective footwear will be a requirement.
Clothing should be appropriate and should be neat, clean, inoffensive, and decent. Some examples of inappropriate attire are headwear worn in the classroom, bare midriffs, obscene or profane language or symbols on clothing, clothing which allows undergarments to be visible when the student is sitting or walking, white undergarment type T-shirts, cut-offs, tank tops, shorts, or purposely frayed clothing. For health reasons, wear is necessary. Hair should be neat, clean, and well groomed at times. Prohibited are the nude look, see-through blouses, and revealing fashions without appropriate concealing undergarments.

RESPONSIBILITIES AND PRIVILEGES

Each student must assume complete responsibility for compliance with the instructions and regulations set forth in the College Catalog, for selecting the courses which will permit him/her to achieve his/her educational objectives, and for satisfying prerequisites for any course which he/she plans to take. Faculty advisors and counselors are available to assist a student in planning his/her program.

The college likewise assumes no responsibility for misinterpretation by a student of policies and procedures presented in the College Catalog or other official documents. Any questions or doubt concerning Catalog information should be referred to the dean of instruction.

CHANNELS OF COMMUNICATIONS

Each student has the right to express an opinion, make suggestions, and submit grievances. Channels of communication are always open to students with legitimate problems. For the simplest, most direct, and best fashions without appropriate concealing undergarments.

STUDENT ACCIDENT PROCEDURE

It is the policy of Bessemer State Technical College to provide immediate medical attention to students in the event of an accident or severe personal illness occurring on campus.

MINOR CHILDREN ON CAMPUS

From time to time, activities are scheduled at Bessemer State Technical College for minor children. On these occasions, they are invited to participate under the supervision of staff and faculty. At other times, however, parents are cautioned that children are neither permitted to remain unattended on campus, nor to attend classes with their parents.

IDENTIFICATION CARDS

Each student is issued a photo identification card (ID) for identification purposes. The following regulations apply to the ID card system:

1. A student should carry his/her ID card at all times. When requested by a faculty member or security officer for proper identification, the student must present his/her card. Failure to do so may result in disciplinary action or arrest for trespassing. Student ID cards are used for personal use only. Students violating the ID card privileges are subject to probation.
2. Loss or theft of the card should be reported to the business manager.
3. A replacement card will be issued for the fee of $1.00.
4. Each student is required, upon request, to show his/her ID card to each instructor upon entering a class.

BOOKSTORE

The College Bookstore, located in the North Wing of Building A, is open Monday through Thursday, 7:30 am - 2 pm, 5 pm - 7:30 pm and Friday, 7:30 am - 2 pm. The Bookstore sells textbooks and supplies required for each course. In addition, many hand tools are available in the Bookstore.

BOOKSTORE REFUNDS

Merchandise in new condition must be returned within ten (10) calendar days of purchase. The following are non-returnable: study guides, examination booklets, special orders, sale merchandise, and opened packages.

TEXTBOOK REFUNDS

New books must be in the same condition as when purchased. Used books must be in resalable condition. Textbooks must be returned within fifteen (15) calendar days from the first day of classes or two (2) calendar days if purchased thereafter.

Please Note: Textbooks purchased the last week of classes or during the examination periods are not eligible for refunds.

TELEPHONES

Pay phones are provided for the use of students. The school business phones are not to be used by students except in case of an emergency.

VISITORS

All visitors to Bessemer State Technical College, regardless of the nature of their visit, must report to the receptionist's office and secure a visitor's pass. The visitor's pass must be in the possession of the individual at all times. Unauthorized visitors will not be permitted on campus.

CAMPUS SECURITY

The college maintains a staff of uniformed security officers 24 hours a day for your protection. Students should report any suspicious activity to the college telephone operator or a security officer. The security officers are radio dispatched. Students must have a valid student I.D. in their possession when on campus.

Students are requested to promptly report any safety hazard or security concern to the Business Manager.

FOOD SERVICES

For students' convenience and pleasure, the food services area is located in Building A with snack bar, salad bar, cafeteria, and dining area with banquet facilities. These facilities are available to the faculty, staff, and students.

BESEMMER STATE TECHNICAL COLLEGE
SCHOOL OF PRACTICAL NURSING

EMERGENCY MEDICAL TECHNICIAN

Because graduates of the Emergency Medical Technician and Licensed Practical Nursing Programs must pass formal state and/or national licensure/certification examinations upon completion of their respective programs, separate policies and guidelines, higher than the institutional standards, have been established. These policies and guidelines are published as "Policies for the Emergency Medical Technician Program" and "Policies for the Licensed Practical Nursing Program". Each student will be given a copy of the appropriate policies upon registration and admission to the program.

For more information on the School of Practical Nursing or the Emergency Medical Technician Program contact Dr. Jessica Cannon, Coordinator of Allied Health Services, 428-6391, ext. 148.
GENERAL INFORMATION

The programs of study and course descriptions offered at Bessemer State Technical College are included in this section of the catalog. A specific schedule will be arranged each quarter with the student's faculty advisor.

The theory and laboratory hours listed in the curricula are based on the number of hours the theory classes and laboratory session meet each week. Those hours are computed to determine credit hours for each course. The students quarterly and cumulative grade-point averages are determined by the grade earned for each course on a 4.0 system.

General education courses required vary according to award and major course of study.

Bessemer State Technical College identifies each course offered by catalog numbers which are composed of a three-letter prefix and three numerals. The prefix is an abbreviation of the program title. Course descriptions for each program are listed in numerical order.

The college may substitute courses when necessary with the approval of the Dean. The college reserves the right to revise program requirements, and/or withdraw any course for which there is insufficient student demand.

ABBREVIATIONS

The following are the official catalog course abbreviations used by Bessemer State Technical College.

Accounting Technology
Air Conditioning/Refrigeration
Automotive Mechanics
Automotive Service Technology
Building Construction
Building Maintenance
Commercial Art/Photography
Commercial Food Service
Computer Science
Data Entry
Dental Assisting
Diesel Mechanics
Drafting and Design
Emergency Medical Technician
English
GED Preparation
Graphics and Printing
Horticulture, Ornamental
Humanities
Industrial Electronics
Industrial Hydraulics
Industrial Maintenance
Licensed Practical Nursing
Machine Tool Technology
Mathematics
Nursing Assistant
Office Administration
Orientation
Physics
Psychology
Retail Merchandising
Small Engine Repair
Sociology
Speech
Student Support Services
Welding

ACT
ACR
AUM
ASE
BUC
BLM
CAT
CFS
DPT
DPT
DAT
DEM
DDT
EMT
COM, SSS, VTE
RED
GPC
OHT
HMN
ILT
INT
INT
LPN
MTT
MAH, SSS, VTM
NASDAQ
SET
ORN
PHC
PSH
REM
SER
SLY
SPC
SSS
WDT
The Accounting Technology program is designed to teach through a sequence of experiences, those students interested in learning accounting skills. Fundamental accounting principles and procedures, cost accounting, income tax procedures, payroll accounting, auditing concepts, and the use of microcomputers in accounting are presented in detail. Students usually complete the Associate Degree Program in six (6) quarters.

**ACCOUNTING Certificate Program**

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<tr>
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<tr>
<td>ACT 121</td>
<td>Accounting II</td>
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<td>ACT 131</td>
<td>Accounting III</td>
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<td>ACT 132</td>
<td>Payroll Accounting</td>
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<td>ACT 212</td>
<td>Cost Accounting</td>
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<tr>
<td>ACT 241</td>
<td>Microcomputer Accounting</td>
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**Required General Education Courses:**

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**Total Credit Hours: 46**

**Recommended Electives:**

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<td>COBOL Programming I</td>
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<td>DPT 141</td>
<td>COBOL Programming II</td>
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<td>0</td>
<td>5</td>
</tr>
<tr>
<td>DPT 221</td>
<td>COBOL Programming III</td>
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**Total Credit Hours: 114**

**ACT 111 ACCOUNTING I, 5 CREDITS.**

An introduction to financial accounting which is designed to provide the student with a basic understanding of the nature of accounting systems, their design and method of utilization for service and retail businesses. Emphasis is placed upon the basic accounting records, transactions, and end of period procedure.

**ACT 113 INTRODUCTION TO ACCOUNTING COMPUTER RESOURCES, 5 CREDITS.**

This course introduces the student to the computer resources available at Bessemer State for use in the accounting curriculum. Topics covered include a brief introduction to accounting spreadsheets using Lotus 123, the Accounting Solutions Software package, and other computer tutorials and programs available in the Accounting Computer Lab. Corequisite: ACT 111

**ACT 121 ACCOUNTING II, 5 CREDITS.**

A continuation of basic accounting principles with an emphasis on payroll accounting, receivables, notes receivable and payable, inventories, accounting principles, plant asset and intangible assets, reporting the results of operations and an introduction to accounting for partnerships. Prerequisite: ACT 111

**ACT 131 ACCOUNTING III, 5 CREDITS.**

An introduction in accounting for corporations. Emphasis is placed on formation and ownership, long-term liabilities, investments, internal and external reports, and statement analysis. Prerequisites: ACT 111 and ACT 121
ACT 132 Payroll Accounting, 5 credits.
A study of the various phases of the Social Security Act and other laws relating to the payment of wages and salaries. It includes the description of the basic payroll accounting systems and procedures used in computing wages and salaries and the time-keeping methods used to record time worked; the development of personnel and payroll records required under numerous laws; and the practice in all payroll operations, recording of accounting entries involving payroll, and the preparation of payroll tax returns that are required. PREREQUISITE: ACT 111

ACT 211 Income Tax I, 5 credits.
An introduction to the federal tax system with emphasis on individual returns. Items discussed are: Short Form 1040A, Form 1040, itemized deductions, retirement income, capital gains and losses. PREREQUISITE: ACT 111

ACT 212 Cost Accounting, 5 credits.
An introduction to the methods of accounting for materials, labor, and overhead of a manufacturing business. The major emphasis of this course is placed on the job-order and process cost accounting systems. PRE­REQUISITE: ACT 111

ACT 214 Intermediate Accounting, 5 credits.
A continuation of the study of financial accounting with emphasis on selected accounting topics. PREREQUISITES: ACT 111, ACT 121, and ACT 131

ACT 221 Income Tax II, 5 credits.
A study of the procedures and principles of business, corporate, and partnership taxation, and preparation of these taxes. Attention is also given to special tax problems which may be encountered. PREREQUI­SITE: ACT 211

ACT 224 Managerial Accounting I, 5 credits.
This course examines the managerial accounting environment, cost behavior, budgeting, and relevant decisions. Emphasis is placed on the actual procedures to be used, the resulting reports to be written, and the accounting standards to be followed. PREREQUISITE: ACT 111

ACT 231 Auditing, 5 credits.
An introduction to the concepts and procedures for external public sector auditing by independent certified public accountants. Emphasis is placed on the actual procedures to be used, the resulting reports to be written, and the accounting standards to be followed. PREREQUISITES: ACT 111, ACT 121 and ACT 131

ACT 233 Governmental Accounting, 5 credits.
An introduction to the principles, concepts, and practices of accounting for governmental and non-profit organizations. The course is designed to provide the student with a basic understanding of fund accounting and its utilization in governmental agencies, colleges and universities, hospitals, and other non-profit organizations. PREREQUISITE: ACT 111

ACT 234 Managerial Accounting II, 5 credits.
A continuation of Managerial Accounting I (ACT 224). Emphasis is placed on standard cost systems, differential analysis, project evaluation, and quantitative techniques for decisions. PREREQUISITE: ACT 224 ACT 235 Accounting Case Studies, 5 credits. Practical application of previously acquired accounting knowledge through a series of case studies. The case studies method of learning places emphasis on the preparation for, and classroom discussion of, a situation which is described in the case. PREREQUISITES: ACT 111, ACT 121, ACT 131, ACT 224 or ACT 212

ACT 241 Microcomputer Accounting, 5 credits.
An introduction to the utilization of microcomputers in the accounting environment. Emphasis is placed on the general ledger system, depreciation, accounts payable and receivable systems, financial statement analysis, and payrolls. PREREQUISITE: ACT 111

AIR CONDITIONING/REFRIGERATION (ACR)

The Air Conditioning/Refrigeration program is designed to provide the learner with the necessary knowledge and skills to enter the world of work. The instructional process begins with the fundamentals of refrigeration and electricity. Other course material focuses on system operational sequences, diagnosis, service, repair, and installation. Information, assignment and job sheets are provided to guide the student through all phases of the program. Students usually complete the Diploma Program in six quarters.

AIR CONDITIONING/REFRIGERATION
Diploma Program

<table>
<thead>
<tr>
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Total Credit Hours 83

AIR CONDITIONING/REFRIGERATION
Certificate Program

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PROGRAMS OF STUDY and COURSE DESCRIPTIONS 23
**Required General Education Courses:**

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**Total Credit Hours:** 47

**Optional Related Courses:**

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**AIR CONDITIONING/REFRIGERATION Course Descriptions**

**ACR 109 Heating System Preventive/Diagnosis, 7 credits.**

Designed for Building Maintenance majors, this course will provide students with the knowledge that is necessary to perform seasonal preventive maintenance and to diagnose heating system malfunctions.

**ACR 110 Cooling System Preventive Maintenance/Diagnosis, 7 credits.**

Designed for Building Maintenance majors; the course will provide the student with the knowledge that is necessary to perform seasonal preventive maintenance and to diagnose cooling system malfunctions.

**ACR 111 Basic Refrigeration, 6 credits.**

This course is the foundation for the Air Conditioning and Refrigeration program. Instruction is provided in the theory and principles of refrigeration, refrigeration system components, the mechanical cycle of operation, and refrigerant characteristics.

**ACR 113 Basic Electricity for A/C, 6 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. The course also provides detailed instruction on the use of various electrical meters used in the HVAC industry. Electrical symbols and basic wiring diagrams will be emphasized during this course.

**ACR 121 Piping and Brazing, 6 credits.**

This course is designed to provide the student with an in-depth knowledge of tubing characteristics, types and applications; and the procedures used in flaring, swaging, and brazing. Various types of fittings are also covered. PREREQUISITE: ACR 111

**ACR 122 Wiring Diagrams, 6 credits.**

This course is a step-by-step approach to reading, understanding, troubleshooting, and developing installation pictorial and schematic wiring diagrams for HVAC (heating, ventilating, and air conditioning) equipment. PREREQUISITES: ACR 111 and ACR 113

**ACR 131 Cooling System Service, 6 credits.**

The primary focal point of this course is residential and commercial comfort cooling. The course provides detailed instruction in mechanical and electrical operational sequences; general service procedures; system diagnosis and corrective measures; methods of leak detection; system evacuation, charging, and performance checks; and basic installation procedures. PREREQUISITES: ACR 111 and ACR 113

**ACR 132 Heating: Electric and Gas, 6 credits.**

This course covers the fundamentals of electric and gas furnaces—components, operational sequences, general service procedures, system diagnosis, repair, and basic installation procedures. PREREQUISITES: ACR 111 and ACR 113

**ACR 141 Psychrometrics, 6 credits.**

This is a systematic study of the properties (conditions) of air as it relates to the design features and performance of comfort cooling and heating systems. PREREQUISITES: ACR 111 and ACR 113

**ACR 142 Ice Machines, 6 credits.**

This course is designed to introduce the student to the components, electrical/mechanical operational sequences, control adjustment procedures, preventive maintenance, repair, and installation of ice machines. PREREQUISITES: ACR 111 and ACR 113

**ACR 203 Certification Review for Contractors, 6 credits.**

This course is designed to cover subject materials that relate to requirements to be a certified contractor. The course does not qualify the student as a certified contractor, but assists toward becoming a certified contractor. The course will cover subject material of Standard Mechanical Code, Standard Gas Code, Safety Code, Duct Design, HVAC/R General, Mechanical Safety Code, Piping, HVAC/R Controls, HVAC/R Insulation, Refrigeration Maintenance, System Sizing, and Application.

**ACR 211 System Sizing and Air Distribution, 6 credits.**

This course is designed to introduce the student to heat gain/loss, design/sizing, and proper air flow calculations. PREREQUISITES: ACR 111 and ACR 113

**ACR 212 Refrigeration Service, 6 credits.**

A distinct line is drawn between comfort cooling and product preservation. This course focuses on the components, operational sequences, pressure/temperature readings, charging procedures, system diagnosis, and repair for specific medium and low temperature refrigeration systems. PREREQUISITES: ACR 111 and ACR 113

**ACR 221 Business Practices and Introduction to Delta 21, 6 credits.**

A course designed to provide the student with the basic concepts of customer relations, supply house procedures, preparing/presenting customer invoices, business licenses, and the use of computerized systems for energy management. PREREQUISITES: ACR 111 and ACR 113

**ACR 222 Heat Pumps, 6 credits.**

This is a comprehensive study of heat pump components, electrical/mechanical operational sequences, system diagnosis, repair, supplemental heat, and installation procedures. PREREQUISITES: ACR 111 and ACR 113
The Automotive Mechanics program teaches the student to diagnose mechanical problems and to make necessary repairs to all components of the automobile. The program is designed to teach the student to immediately apply his newly gained knowledge in shop experiences. Students usually complete the Diploma program in six quarters.

### AUTOMOTIVE MECHANICS

#### Diploma Program

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<tr>
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#### Certificate Program

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#### Required General Education Courses

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#### TOTAL CREDIT HOURS

- Diploma Program: 86
- Certificate Program: 78

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### AUTOMOTIVE MECHANICS COURSE DESCRIPTIONS

#### AUM 111 Basic Mechanics, 5 CREDITS.

This course is designed to provide the student the basic and fundamental knowledge of the automotive shop, safety in the shop, tools and equipment, and various systems on the automobile.

#### AUM 122 Manual Transmissions and Transaxles, 8 CREDITS.

A study of drive shafts, universal joints, rear axles, differentials, bearings, seals, types and construction of clutches, synchromesh transmissions, transaxles and transfer cases. The course also provides the student an opportunity to practice the skills necessary for removal, overhaul and replacement of clutches, synchromesh transmissions, transaxles, transfer cases, drive shafts, differential and axles.

#### AUM 131 Brakes, 8 CREDITS.

A detailed study of types of braking systems, their components, service requirements and machining of brake drums and rotors. The course also provides the student an opportunity to practice the skills necessary for the service of vacuum, manual and hydraulic power brakes.

#### AUM 132 Engine Repair, 9 CREDITS.

This course is designed to provide the student with the basic and fundamental knowledge of automotive engines, engine related systems, removal and replacement, and overhaul procedures. The course also provides the student with the opportunity to practice the skills necessary to safely machine parts and disassemble and reassemble automotive engines.

#### AUM 141 Automotive Heating and Air Conditioning, 8 CREDITS.

A study of fundamentals and principles of the operation and construction of the automotive air conditioning and heating systems. The course provides the student an opportunity to practice the skills necessary to perform compressor overhaul and air conditioning service work.

#### AUM 142 Automatic Transmission and Transaxles, 10 CREDITS

A study of construction, operation, and service of automatic transmissions including hydraulics. The course also provides the student an opportunity to practice the skills necessary for disassembly and reassembly, making all necessary repairs, services, and adjustments.

#### AUM 161 Engines I, 4.5 CREDITS.

A study of engine construction, including types, cylinder arrangements, valve arrangements, engine cooling systems and lubricating systems.

#### AUM 162 Engines II, 4.5 CREDITS.

The student studies engine operation, measurements and performance, pistons, rings, valves and connecting rods; and learns the proper methods of grinding valves and seats.

#### AUM 163 Automatic Transmission II, 4.5 CREDITS

A course designed to provide the student with an understanding of the construction and operation of automatic transmissions. Includes hydraulics, fluid couplings, planetary gear systems, governor control valves, clutch units, servos and bands.

#### AUM 164 Automatic Transmission II, 4.5 CREDITS.

A continuation of the study of automatic transmission to include methods of disassembly and assembly and making necessary repairs and adjustments.

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PROGRAMS OF STUDY and COURSE DESCRIPTIONS 25
AUM 165 DIFFERENTIALS AND DRIVE LINES, 4.5 CREDITS
A study of drive shafts, universal joints, rear axles, differentials, bearings and seals.

AUM 166 AUTOMOTIVE AIR CONDITIONING, 4.5 CREDITS
A study of the fundamentals and principles in the construction and operation of automotive air conditioning systems.

AUM 167 CLUTCHES AND STANDARD TRANSMISSIONS, 4.5 CREDITS
An in-depth study of types and construction of clutches, service, and troubleshooting.

AUM 168 FRONT END AND STEERING I, 4.5 CREDITS
The student learns to service and align front suspension and to replace service steering sectors and linkage.

AUM 169 FRONT END AND STEERING II, 4.5 CREDITS
A continuation of the study of front end and steering.

AUM 170 HYDRAULIC BRAKES, 4.5 CREDITS.
A detailed study of types of braking systems and their service requirements, machine turning of brake drums and rotors, and vacuum power brakes.

AUM 171 AUTOMOTIVE ELECTRICITY, 4.5 CREDITS
A course that includes fundamentals of electricity and magnetism, basic circuitry, and electrical charging systems.

AUM 172 FUEL AND EXHAUST SYSTEMS, 4.5 CREDITS.
A study of the components of the fuel system including lines, pumps, and carburetors; and components of the exhaust system including manifolds, exhaust pipes, mufflers, resonators and tail pipes.

AUM 173 TUNE-UP AND TESTING, 4.5 CREDITS
The student becomes familiar with mechanical and electrical testing equipment used to diagnose malfunctions of the ignition system and to determine the general condition of the engine. The purpose of this course is to provide the student knowledge necessary to understand automotive emission control systems and the effects automotive emissions have on our environment.

AUM 174 EMISSIONS CONTROL, 4.5 CREDITS
This course provides the student with knowledge necessary to understand automotive emission control systems and the effects automotive emissions have on the environment.

AUM 211 STEERING AND SUSPENSION, 8 CREDITS.
A study of suspension design, front end and rear suspension components, front end and rear suspension geometry, steering, and types and construction of tires. The course also provides the student an opportunity to practice the skills necessary to diagnose, service, and align front and rear suspension and to balance tires.

AUM 221 ENGINE PERFORMANCE, 10 CREDITS.
This course is designed to provide the technical knowledge necessary for testing and diagnosing malfunctions in the ignition system, fuel system, and emission control systems. This course includes various types of systems—point type, solid-state, computer-controlled, and distributorless ignition systems, carburetor systems, manual and feedback types, fuel injection—and the various types of emission control systems that are used to protect the environment. The course also provides the student an opportunity to practice the skills in the use of mechanical and electrical testing equipment and procedures to diagnose malfunctions in the ignition system, fuel system, and emission control system and to remove, repair, and/or replace components of those systems. PREREQUISITE: AUM 231

AUM 231 ELECTRICAL SYSTEMS, 9 CREDITS.
This course is designed to provide the student the fundamentals of electricity, automobile electrical systems and components and time to practice skills necessary to diagnose and repair automotive electrical systems.

AUM 260 FUNDAMENTALS OF COMPUTER COMMAND CONTROL, 4.5 CREDITS.
The student will be presented with an in-depth and comprehensive study of the General Motors Fuel Systems in use since 1980, including Computer Command Controls Systems. Since an understanding of basic electronics is essential to the subject matter, the course will include a review of the principles of electricity and magnetism, and will advance into current automotive electronics, circuitry and theory. The student will study the details of on board computer systems, input sensors and output actuator devices. This course will also include a detailed study of GM feedback carburetors, including overhaul procedures and external adjustments procedures. The last segment of the course will direct study toward use of diagnostic equipment, interpretation of the on board computer data stream, and scan tool usage.

AUM 261 FUNDAMENTALS OF GM FUEL INJECTION SYSTEMS, 4.5 CREDITS.
A fundamental course in the principles of General Motors fuel injection systems. The course begins with an introduction to GM fuel injection systems, both throttle body (T.B.I.) and port fuel injection (P.F.I.). The student will study microprocessor controls of fuel injection systems including diagnostic procedures and repair. The course will include a basic study of distributorless ignition systems (D.I.S.). The student will practice troubleshooting and diagnostic procedures for the General Motors fuel injection systems including use of various scan tools.

PREREQUISITE: AUM 231

AUM 265 FUNDAMENTALS OF FORD ELECTRONIC ENGINE CONTROLS, 4.5 CREDITS.
This course will provide the participant with theory and operation of Ford Electronic Engine Controls. Course material evolves from Ford's First Generation System (E.E.C.-I) through the Fourth Generation System (E.E.C.-IV) with primary emphasis on all aspects of the E.E.C.-IV system. Participants will gain knowledge in Ford Feedback Carburetor Electronic Fuel Injection, T.F.I. ignition, distributorless ignition and other related emission systems. This course will include a multitude of "hands-on" activities to support practical diagnosis and testing procedures.

For More Information Call
428-6391
In-State
1-800-235-5368

26 PROGRAMS OF STUDY and COURSE DESCRIPTIONS
The General Motors Automotive Service educational Program (ASEP), Toyota Technical Education Network (T-TEN) Program, and the Ford Motor Company Automotive Student Service Educational Training Program (ASSET), are two-year automotive programs designed to upgrade the technical competence and professional level of the incoming dealership technician. The curriculum is designed by General Motors, Toyota, Ford and Bessemer State Technical College and leads to an Associate Degree in Automotive Service Technology. The program involves attending on-campus classroom and laboratory sessions and on-the-job work experience through a sponsoring dealership. Content of the courses differs in product specific application as it relates to General Motors, Toyota or Ford models.

### GENERAL MOTORS ASEP PROGRAM

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### FORD ASSET PROGRAM

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### PROGRAMS OF STUDY and COURSE DESCRIPTIONS

**Required General Education Courses**

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**TOTAL CREDIT HOURS** 107
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### TOYOTA T-TEN PROGRAM (Contd)

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### Required General Education Courses

| ORN 100 | Orientation to College                | 1      | 0   | 1      |
| HNM100  | Humanities Forum                      | 1      | 0   | 1      |
| HNM100  | Humanities Forum                      | 1      | 0   | 1      |
| HNM100  | Humanities Forum                      | 1      | 0   | 1      |
| COM151  | English Composition I                 | 2.5    | 0   | 2.5    |
| COM152  | English Composition II                | 2.5    | 0   | 2.5    |
| MAH151  | College Mathematics I                 | 2.5    | 0   | 2.5    |
| MAH152  | College Mathematics II                | 2.5    | 0   | 2.5    |
| MAH153  | Elementary Algebra I                  | 2.5    | 0   | 2.5    |
| MAH154  | Elementary Algebra II                 | 2.5    | 0   | 2.5    |
| PSH 251 | Business & Industrial Psychology I    | 2.5    | 0   | 2.5    |
| PSH 252 | Business & Industrial Psychology II   | 2.5    | 0   | 2.5    |
| PHC 151 | Intro to Physics I                    | 2.5    | 0   | 2.5    |
| PHC 152 | Intro to Physics II                   | 2.5    | 0   | 2.5    |
| SPC 151 | Fundamentals of Speech Communication I| 2.5    | 0   | 2.5    |
| SPC 152 | Fundamentals of Speech Communication II| 2.5   | 0   | 2.5    |

**TOTAL CREDIT HOURS 109**

### TOYOTA T-TEN PROGRAM

Associate in Applied Technology

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**TOTAL CREDIT HOURS 109**

### AUTOMOTIVE SERVICE TECHNOLOGY

**Course Descriptions**

**ASE 100 BASIC MECHANICS, 2 CREDITS.**

This course is designed to provide an introduction to the T-Ten Program and Toyota dealer service techniques. Students will review the history of the automotive industry and Toyota. They will be introduced to Toyota pre-delivery inspection techniques, use of shop equipment, safety practices and procedures, use of shop manuals, and become familiar wi...
vehicle identification techniques and light duty service procedures. Special emphasis is placed on work habits, appearance, and motivation.

**ASE 111 AUTOMOTIVE ELECTRICITY, 3 CREDITS.**
An introduction to the fundamental laws of electricity and the principles of magnetism and induction. The course will include a study of Ohm's Law and Kirchoff's Laws of Electricity as well as electrical circuit schematic reading, wire repair, the proper use of electrical test equipment, together with a study of the automotive batteries, starting systems and charging systems in current use by major automobile manufacturers.

**ASE 112 ELECTRICAL ACCESSORIES, 3 CREDITS.**
This course provides a study of electrical troubleshooting and repair techniques currently used in removal and replacement of automotive accessories. The use of wiring diagrams and special service tools described in current service manuals are covered.

**ASE 121 BRAKING SYSTEMS, 3 CREDITS.**
A study of brake and brake control systems, including brake system hydraulics and brake hardware. The student practices brake service procedures and brake performance diagnostic and troubleshooting methods. The course includes a study of advanced brake systems and the on-board computers and sensors that control these systems. PREREQUISITES: ASE 111 and ASE 112

**ASE 122 STEERING, SUSPENSION AND ALIGNMENT, 3 CREDITS.**
This course provides an overview of conventional and strut-type suspension systems. The student is introduced to conventional and rack and pinion types of steering systems, applies two-wheel and four-wheel alignment procedures, and applies tire and wheel balance procedures.

**ASE 131 ENGINES, 3 CREDITS.**
A study of the internal combustion automobile engine with emphasis on the engines currently in use by major automobile manufacturers. The student is introduced to engine construction, valve and camshaft arrangements, cooling systems, lubrication systems and aspiration systems, including turbocharging. The student applies engine teardown/reassembly methods, measurement techniques, part wear/failure analysis methods and demonstrates approved and common engine testing methods.

**ASE 132 AIR CONDITIONING SYSTEMS, 3 CREDITS.**
A study of the principles of refrigeration and the heating and air conditioning systems currently used by major automobile manufacturers, including manual, semi-automatic, and automatic systems. The course includes details of the electrical control circuits for the compressor, blower, and coolant fan(s). The description, purpose and function of air conditioning system components are explained in this course and service and repair procedures are presented and practiced by the student. Safety procedures for handling R-12 are discussed.

**ASE 141 POWER TRAIN FUNDAMENTALS, 7 CREDITS.**
A study of the current methods and components used to deliver power from the engine to the drive shafts. The course includes a study of powerflow in the manual transmission/transaxle, gear ratios, clutch systems, drivelines, drive axles, U-Joints, CV joints and differentials. The student will apply removal, disassembly and repair methods for power train components.

**ASE 211 SPECIALIZED ELECTRONICS, 3 CREDITS.**
This course is designed to build on the principles and laws of electricity studied in ASE 111 and will advance into a study of solid state devices, diodes, transistors, variable resistors, bipolar transistor switching circuits, light emitting diodes, vacuum fluorescent displays and silicon controlled rectifiers. Prerequisites: ASE 111, ASE 112, and MAH 154 (or) Approval

**ASE 212 AUTOMOTIVE MICROPROCESSORS, 3 CREDITS.**
A study of on-board computer systems, including multiple computer applications such as body computers, instrument panel computers, and multiplexing circuits. The course includes an introduction to the principles of microprocessors, central processing units, binary numbering systems, logic circuits, inputs, outputs, analog/digital converters, data stream, interpretation(s) and future computer application considerations. COREQUISITE: ASE 211

**ASE 221 FUEL AND IGNITION SYSTEMS, 3 CREDITS.**
A fundamental course in the principles of modern fuel systems, beginning with a study of the principles of carburetion and the principles of electronic ignition systems. The course will advance into a detailed study of feedback carburetion systems and will conclude with an introduction to Electronic Fuel Injection Systems. The student practices diagnostic techniques and repair procedures for current production carburetors and ignition systems. PREREQUISITES: ASE 111 and ASE 112

**ASE 222 EMISSION CONTROLS, 3 CREDITS.**
A study of the exhaust and evaporative emissions produced by the modern automobile that affect the environment and the emission control system developed and currently used by major automobile manufacturers. The student is introduced to the current federal regulations that influence the design and production of the automobile (EPA Regulations) and studies the various devices that are used to meet these regulations. The course includes test procedures for emission devices and diagnostic or troubleshooting methods. COREQUISITE: ASE 221

**ASE 231 ADVANCED FUEL AND IGNITION SYSTEMS, 3 CREDITS.**
This course is an advanced study of the fuel and ignition management systems presently used by major automobile manufacturers to meet the current emission, fuel economy and performance requirements of the modern automobile. The course includes an in-depth study of Electronic Fuel Injection and Port Fuel Injection Systems (EFI/PFI). Included in the course are detailed studies of the components that make up the EFI/PFI system(s), diagnostic procedures, on-car test procedures and methods presently used to interpret the data available from on-board computer system data streams. PREREQUISITES: ASE 211 and ASE 221

**ASE 232 ENGINE PERFORMANCE TESTING, 3 CREDITS.**
A study of engine performance testing methods and the testing equipment presently approved for diagnostic troubleshooting. The course includes a study of engine analyzers (oscilloscopes), interpretation of oscilloscope patterns, waveforms and other diagnostic information available from the current engine analyzers such as the Allen SEA. The application and use of other accepted diagnostic tools also are included. COREQUISITES: ASE 211 and ASE 221

**ASE 241 AUTOMATIC TRANSMISSION/TRANSAXLE, 4 CREDITS.**
This course builds on the principles of powerflow studied in ASE 141 and advances into the construction, design, and repair of the automatic transmission and transaxle. The student removes, disassembles and repairs transmission/transaxle assemblies and studies the torque converter clutch, torque converter clutch control circuits, both hydraulic and electrical, and studies the computer logic approaches that are used to enable/disable the TCC. PREREQUISITE: ASE 141

**ASE 242 PRODUCT UPDATE, 3 CREDITS.**
This course includes current-year model automotive product training classes, such as new model familiarization and current high priority update courses offered in the major automobile training centers. Course content changes with each new year model change to ensure that the student receives the most up-to-date information possible prior to graduation from the program. PREREQUISITE: 7th Quarter Standing
At the end of each on-campus instruction period, the student returns to the sponsoring dealership to complete this segment of the curriculum under the supervision of the dealership student work coordinator. The student works during the off-campus period on a full-time basis with the sponsoring dealership. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the courses just completed at the college. An evaluation of the student’s in-dealership work performance and progress is completed by the dealership supervisor.

**BUILDING CONSTRUCTION TECHNOLOGY (BUC)**

Bessemer State Technical College offers this program for people interested in pursuing a career in building construction. Students successfully completing the program receive an Associate Degree in Applied Technology. The curriculum is designed to prepare graduates for entry-level employment as carpenters and to provide the knowledge necessary to advance after appropriate field experience as estimators, expeditors, assistant project managers, project managers, appraisers or inspectors.

Students usually complete the Associate Degree Program in six quarters.

**BUILDING CONSTRUCTION Certificate Program**

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**Total Credit Hours** 81

**BUILDING CONSTRUCTION TECHNOLOGY Course Descriptions**

**BUC 113 Construction Basics I, 4 Credits.**

The purpose of this course is to provide the student with an understanding and knowledge of the various types of tools and materials and the technical knowledge associated with the industry.

**BUC 114 Construction Basics II, 4 Credits.**

The purpose of this course is to provide the student with an understanding and knowledge of the builder’s level, transit, differential leveling procedures, and site layout techniques.

**BUC 115 Construction Basics III, 4 Credits.**

The purpose of this course is to provide the student with an understanding and knowledge of the math required for the general building construction functions.
BUC 116 CONSTRUCTION PRINT READING I, 5 CREDITS.
The purpose of this course is to give the technical knowledge required to read basic construction blueprints and provide adequate opportunity to practice those skills by the employment of true-to-life architectural residential drawings.

BUC 121 FOUNDATIONS AND FRAMING, 5 CREDITS.
The purpose of this course is to provide the student with an understanding and appreciation of the basic components of construction and technical knowledge such as site identification, building layout for foundations and basic construction framing.

BUC 122 CONSTRUCTION PRINT READING II, 5 CREDITS.
The purpose of this course is to give the technical knowledge required to read construction blueprints and provide adequate opportunity to practice those skills by the employment of true-to-life architectural workings for residential and light commercial drawings.

BUC 131 INTERIOR AND EXTERIOR FINISH & TRIM, 5 CREDITS.
This course is designed to provide the student an in-depth understanding of interior and exterior construction finishes, trim, and hardware installation.

BUC 132 CONSTRUCTION PRINT READING III, 5 CREDITS.
The purpose of this course is to give the technical knowledge required to read construction blueprints and provide adequate opportunity to practice those skills by the employment of true-to-life architectural working for light commercial to multi-story high-rise drawings.

BUC 133 PLANS, SPECIFICATIONS & CODES, 5 CREDITS.
The purpose of this course is to provide the student with an understanding of the components of construction and the technical knowledge associated with building codes, real estate, and scheduling.

BUC 141 ON GRADE CONCRETE SYSTEMS, 5 CREDITS.
The purpose of this course is to provide the student with the technical knowledge required to design concrete forms and to provide practice in constructing the forms.

BUC 142 ESTIMATING, 5 CREDITS.
The purpose of this course is to provide the student with a foundation for construction estimating using simulated construction jobs from a supervisor's perspective.

BUC 143 ABOVE GRADE CONCRETE SYSTEMS, 5 CREDITS.
The purpose of this course is to provide the student with the technical knowledge required to design concrete forms and to provide practice in constructing above grade concrete forms.

BUC 211 METALS, SHEETROCK AND METAL STUDS, 5 CREDITS.
The purpose of this course is to provide the student with the technical knowledge and understanding of structural steel and metals used in construction and to provide an opportunity to practice the skills necessary to perform these tasks.

BUC 212 CONSTRUCTION SKETCHING & DETAILING I, 3 CREDITS.
Introductory drafting techniques and procedures are presented to include lettering, line work, instrument use, and geometric construction techniques as basics. Also, multiview orthographic projection, sectioning, and dimensioning, concepts are addressed. A drafting project relevant to the students area of specialization will be completed.

BUC 213 CONSTRUCTION SKETCHING & DETAILING II, 3 CREDITS.
This course is an extension of BUC 212. Students are introduced to basic residential planning, light construction principles, and architectural detailing techniques. Students will be required to draft a complete set of working drawings of a residence they have designed.

BUC 222 FIELD PROBLEMS, 5 CREDITS.
This is a directed studies course that allows the student to research construction field problems. While the basics of construction are standard, there are many new tools, techniques, and material applications which support major segments of the industry. This course is intended to allow the student to investigate new technological advancement of the industry and to explore those areas. Topics chosen in this course must be construction field oriented as opposed to office application.

BUILDING MAINTENANCE (BLM)

Building Maintenance includes theory, laboratory experiences, and live-work projects relative to the repair, alteration, and modernization of existing structures. Students completing the nine-month course will qualify to enter the maintenance field in several job areas: industrial, commercial, institutional, as well as apartment and condominium buildings. The college also offers specialty certificate programs in carpentry, electrical, and plumbing. Students usually complete the program in three quarters.

BUILDING MAINTENANCE Certificate Program

<table>
<thead>
<tr>
<th>COURSE</th>
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<th>LAB</th>
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Required General Education Courses:

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TOTAL CREDIT HOURS 44

Optional Related Courses:

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<td>ACR 110</td>
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PROGRAMS OF STUDY and COURSE DESCRIPTIONS 31
BUILDING MAINTENANCE - CARPENTRY
Certificate Program

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<td>BLM 171</td>
<td>Carpentry II</td>
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Required General Education Courses:

- VTE 101 Vo-Tech Communication
  - Skills I 5 0 5
- VTM 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 26

BUILDING MAINTENANCE - ELECTRICAL
Certificate Program

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<td>BLM 162</td>
<td>Commercial Wiring</td>
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<td>BLM 163</td>
<td>Industrial Wiring</td>
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Required General Education Courses:

- VTE 101 Vo-Tech Communication
  - Skills I 5 0 5
- VTM 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 34

Optional Related Course:

- BLM 164 Electrical Code 5 2 6

BUILDING MAINTENANCE - PLUMBING
Certificate Program

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<td>BLM 262</td>
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<td>BLM 263</td>
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Required General Education Courses:

- VTE 101 Vo-Tech Communication
  - Skills I 5 0 5
- VTM 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 22

Optional Related Course:

- MAH 108 Elementary Algebra

BUILDING MAINTENANCE Course Descriptions

BLM 111 FUNDAMENTALS OF BUILDING MAINTENANCE, 3 CREDITS.
This course consists of six instructional units designed to provide the student with the basic skills and knowledge to safely perform building maintenance tasks; to read plans and make accurate measurements; to interpret building plans; and to identify and safely use various hand and power tools and miscellaneous equipment.

BLM 112 MAINTENANCE CARPENTRY, 5 CREDITS.
This course consists of 15 instructional units designed to provide the student with the skills and knowledge to safely install, repair, build, and/or maintain floor, sill, wall, ceiling and roof framing; layout, cut, and install stairs; install roof decking, felt, flashing, and composition shingles; install vapor barriers and blanket insulation; install exterior wall and trim windows, and doors; and install interior walls and ceilings, doors, trim cabinets, and built-ins.

BLM 121 MAINTENANCE PLUMBING, 4 CREDITS.
This course consists of 13 instructional units designed to provide the student with the skills and knowledge to safely install, repair, and maintain pipe, drainage systems, water systems, fuel piping systems, fixtures and appliances, and lawn sprinkler systems.

BLM 122 GENERAL MAINTENANCE, 5 CREDITS.
This course is designed to provide the student with the basic skills and technical knowledge to maintain existing structures according to applicable building codes.

BLM 131 MAINTENANCE MASONRY, 5 CREDITS.
This course provides the student with the basic skills and knowledge to safely accomplish the following: mix concrete; build simple forms, layout and cut wire mesh, and finish concrete; mix mortar; and replace tile, bricks, and/or concrete blocks.

BLM 132 GENERAL REPAIR, 5 CREDITS.
This course is designed to provide the basic skills and knowledge necessary to repair, alter, and/or modernize existing structures.

BLM 160 BASIC THEORY FOR ELECTRICIANS, 6 CREDITS.
A course designed to give students an understanding of the basic technical aspects of the electrical devices and concepts they will work with as electricians. Includes lecture and lab exercises on electricity and how it flows; Ohm's law for DC circuits, magnetism, alternating current, resistors, inductors, capacitors, transformers, and power factor. Safety procedures are emphasized.

BLM 161 RESIDENTIAL WIRING, 6 CREDITS.
Lecture and practice lab experience in the basic skills required of a residential maintenance electrician based on the National Electrical Code. Includes blueprint reading, load calculation, water heaters, heating systems, smoke detectors, service entrance, remote control lighting circuits, circuit design and layout of typical residential circuits. Job safety, basic materials and tools are emphasized.

BLM 162 COMMERCIAL WIRING, 6 CREDITS.
This course addresses all aspects of commercial-type electrical work. Includes conduit bending, circuit design, controls, rigging, pulling of cables, and switch gear design. Generation principles and transformers are emphasized.

BLM 163 INDUSTRIAL WIRING, 6 CREDITS.
Extensive experience in practical problems faced by a maintenance electrician. Lab exercises in electrical troubleshooting and renovation are emphasized, along with the recognition of safety hazards.

BLM 164 ELECTRICAL CODE, 6 CREDITS.
A thorough, in-depth study of The National Electrical Code. Preparation for Journeyman or Master's Test given by city or county inspection services. Workbook, tests, and explanations cover in detail the National Electrical Code. PREREQUISITE: 1 1/2-2 years minimum of in-field experience or equivalent electrical knowledge.

32 PROGRAMS OF STUDY and COURSE DESCRIPTIONS
BLM 170  CARPENTRY I, 4 CREDITS.
A course involving the identification, care, adjustment and proper use of
hand power tools. Safety is stressed. Measuring and layout tools,
levelling instruments and building materials are also emphasized.

BLM 171  CARPENTRY II, 4 CREDITS.
A study of footings and foundations. Floor, wall, ceiling, and roof
construction are emphasized. The student also is taught to read blue­
prints.

BLM 172  CARPENTRY III, 4 CREDITS.
A study of roofing materials, window and door installation, wall finishing,
thermal and sound insulation, and floorings. Roof layout and construction,
cornice construction, interior and exterior finishing are included.

BLM 173  CARPENTRY IV, 4 CREDITS.
A study of the techniques of construction required of building maintenance
workers. Includes stair construction, post and beam construction.

BLM 261  PLUMBING I, 4 CREDITS.
Lecture and practical lab exercises in the basic skills needed to be a
maintenance plumber. Job safety, plumbing materials and plumbing tools
are studied in detail.

BLM 262  PLUMBING II, 4 CREDITS.
A continuation of the skills learned in Plumbing I. The joining, installing,
and supporting of different type pipes are emphasized. Sizing of sanitary
drainage and vent piping is also studied.

BLM 263  PLUMBING III, 4 CREDITS.
A study of water supplies, plumbing fixtures, and appliances. The student
also learns testing and inspection procedures.

COMMERCIAL ART (CAT)

The Commercial Art program at Bessemer State Technical College is
designed to enhance and maximize artistic skills for persons who desire
to work in this career field. Sources of employment are advertising
agencies, advertising departments, art studios, mass media (newspapers
and TV), printers and publishers, and as free-lance commercial artist.
Specialty certificate programs in Advertising and Design and Commercial
Photography are offered in the evening program.

Students usually complete the Diploma program in six quarters.

COMMERCIAL ART  (Contd)

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<td>Computerized Graphics</td>
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<td>CAT 221</td>
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<td>GPC 131</td>
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Required General Education Courses:
ORN 100  Orientation to College | 1 | 0 | 1
VTE 101  Vo-Tech Communication Skills I | 5 | 0 | 5
VTE 102  Vo-Tech Communication Skills II | 5 | 0 | 5
SC 106  Fundamentals of Speech | 5 | 0 | 5
VTM 101  Vo-Tech Mathematics I | 5 | 0 | 5

TOTAL CREDIT HOURS 80

Optional Related Courses:
CAT 211  Current Topics | 1 | 2 | 2
CAT 212  Current Topics | 1 | 0 | 1
CAT 302  Airbrush I | 1 | 8 | 5
CAT 303  Airbrush II | 1 | 8 | 5
CAT 304  Airbrush III | 1 | 8 | 5

COMMERCIAL ART  Certificate Program

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Required General Education Courses:
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VTE 101  Vo-Tech Communication Skills I | 5 | 0 | 5
VTM 101  Vo-Tech Mathematics I | 5 | 0 | 5

TOTAL CREDIT HOURS 50

COMMERCIAL ART - PHOTOGRAPHY  Certificate Program

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PROGRAMS OF STUDY and COURSE DESCRIPTIONS 33
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**Required General Education Courses:**

CAT 110 TECHNICAL GRAPHICS, 5 CREDITS.
An introductory course for both the Commercial Art and Graphics and Printing programs. The course includes basic lettering, line work, instrument use, and geometric construction techniques. Specific lab projects are assigned to reinforce the course of study.

CAT 120 DESIGN DRAWING, 5 CREDITS.
A drawing course that introduces the five basic component skills, which include the perception of edges, spaces, relationship, lights and shadows, and of the whole. The fundamentals of drawing are addressed using different media and an introduction to perspective drawing is offered. This course covers quick sketching, charcoal drawing, introduction to calligraphy, ink wash, and an introduction to pastel rendering.

CAT 130 ADVANCED PHOTOGRAPHY I, 5 CREDITS.
This course introduces the student to abstract art, basic design and commercial layout. The student acquires knowledge in the following areas of design: symmetrical and asymmetrical balance, line direction, value and color in design, texture and collage, thumbnail sketching, rough layouts, comprehensives and the use of color for simulating printing inks. Students start simple and progress to the more difficult tasks as the quarter evolves, ending with camera ready art. PREREQUISITES: CAT 110 and CAT 120

CAT 140 ADVANCED PHOTOGRAPHY II, 7 CREDITS.
This course deals with design assignments related to the commercial art field and introduces the student to advanced mechanical layout and camera-ready art. Students will develop magazine and newspaper ads, a direct mail piece and a package design. PREREQUISITE: CAT 130

CAT 160 COMPUTERIZED DRAWING, 5 CREDITS.
Design illustrations for art projects, newsletters and brochures with Aldus Free Hand. The screen itself is your pasteboard, complete with drawing tools. You can define, apply, and change your colors, drawing layers, and graphic styles with customizable on-screen palettes. PREREQUISITE: CAT 169

CAT 169 INTRODUCTION TO COMPUTER GRAPHICS, 5 CREDITS.
This course is designed to prepare students for courses which use specific desktop publishing and drawing software packages. The basic functions of the computer, Microsoft Windows, MS-DOS commands, and file utilities are covered in this introductory course.

CAT 170 COMPUTERIZED GRAPHICS, 5 CREDITS.
Process 24-bit images in full color, grayscale, or black and white on the PC with Aldus Photostyler. Students will have the ability to acquire images from a wide range of sources and industry-standard file formats, enhance or modify them for use in publications and presentations, and ever create new images from scratch. PREREQUISITE: CAT 169

CAT 211 CURRENT TOPICS, 2 CREDITS.
This course is a survey of current trends in the graphic design industry. This optional course will help students develop specializations. Possible topics include: comic art, caricatures, typography, perspective drawing, free-lance marketing, three dimensional imaging, and computer animation.

CAT 212 CURRENT TOPICS, 1 CREDIT.
This course is a survey of current trends in the graphic design industry. This optional course will help students develop specializations.

CAT 221 ADVANCED DESIGN III, 7 CREDITS.
This course incorporates all previous commercial art classes and is designed to give the student a portfolio for job interviews. Students will create two individual campaigns during the quarter. The first will be a corporate identity campaign which will include designing an annual report. The other is a fashion marketing campaign. Both campaigns will include the creation of newspaper ads, direct mail pieces, point of purchase displays and novelty design items. Students will also be introduced to tabletop and fashion photography. PREREQUISITES: CAT 141

CAT 260 ADVANCED PHOTOGRAPHY, 5 CREDITS.
The study of black and white photography, including film processing and darkroom printing. This course includes theme shooting, composition, spot toning, introduction to hand painting, and computer animation.

CAT 261 ADVANCED STUDIO I, 5 CREDITS.
An introduction to studio lighting techniques and posing. This course includes training with photofloods, tungsten light, electronic flash systems, daylight balanced light, hotshot and strobe lighting. The basic single-portrait poses, modeling poses, and wedding group poses are included in this course. REQUIRED: 35mm camera

CAT 262 ADVANCED STUDIO II, 5 CREDITS.
The study of table-top advertising photography, fine art still-life photography, imaging with color and soft lighting with electronic flash unit. Some environmental product shooting. (Students may use 4 x 5 or 8 x 10 format, but must provide camera and sheet developing, printing and polaroids.) REQUIRED: 35mm camera. OPTIONAL: 6 x 6 cm camera.

CAT 265 PHOTO ADVERTISING, 5 CREDITS.
The study of photo layout, comps, and photo advertising. Students use their photographs from Studio I and II to develop an annual report, a P-O-P ad, and a self-promotional project which requires a mechanical. REQUIRED: 35mm camera.
CAT 266 PHOTOJOURNALISM, 5 CREDITS.
Visual communications through photographic images. Students are
asked to capture the most revealing moment, anticipate a news reader’s
interest, and be a trained observer of current events. This course consists
of photography, black and white darkroom lab, writing caption lines, story
outlines and writing a complete news story. REQUIRED: 35mm camera.

CAT 267 PHOTO AIRBRUSH I, 5 CREDITS.
An introduction to the airbrush, including techniques and exercises.
Photographic “block-out,” copying, and photo restoration for black and
white photography. REQUIRED: 35mm camera, double-action airbrush.

CAT 268 PHOTO MARKETING, 5 CREDITS.
This marketing course includes where to market your work, how to fre­
lance, and shooting for stock photo. An introduction to business,
concerning photography only. Self-promotion, tax tips, required policies,
and booking. Shooting a photo-request list, writing queries, and keeping
records. REQUIRED: 35mm camera and transparency film.

CAT 270 PUBLICATION LAB, 5 CREDITS.
Portfolio evaluation for entry-level employment requirements. Teacher
and/or industry critiques are held upon request. Self-promotion publicity
is done by student.

CAT 272 BLACK AND WHITE PHOTOGRAPHY II, 5 CREDITS.
A course offered for anyone who would like more darkroom experience.
This course involves shooting on location, black and white film processing,
and printing.

CAT 273 PHOTO AIRBRUSH II, 5 CREDITS.
A study of advanced airbrush photographic techniques which include color
“block-out,” color restoration and retouching, superimposing, and work­
book renderings. Students may substitute color negative and E-6
transparency retouching for color restoration, depending on individual
needs. An Adams retouching machine is available for negative and E-6
retouching, but students are required to purchaseinks, dyes, and bleaches.
REQUIRED: double-action airbrush

CAT 274 AIRBRUSH III, 5 CREDITS.
An advanced study of photo airbrush for those who wish to make it a
career. The study of inks and dyes related to this field is included. New
wave hand tinting is taught.

CAT 275 STUDIO III - FASHION, 5 CREDITS.
This course uses advanced lighting techniques, an electronic flash
system, a spot meter, and a medium format camera. Students design,
sty!e and shoot magazine ad assignments using student models. RE­
QUIRED: 35mm camera, 6 x 6 cm, 6 x 7 cm, or 6 x 4.5 cm camera format

CAT 276 STUDIO IV, 5 CREDITS.
A study of advanced lighting techniques, the 4 x 5 camera, and strobe
lighting. Prerequisites: Students must have completed Studio I, II, and
III; completed transferable advanced studio classes at an accredited
college; or be a photographer active in the commercial advertising field.

CAT 277 MULTI-IMAGE PHOTOGRAPHY, 5 CREDITS.
Production of a three-projector multi-image color slide show using skills
acquired in basic photography. Students will write scripts, create a story
board, and produce a complete slide presentation. Graphic design,
typography, and color is emphasized.

CAT 269 AIRBRUSH I, 5 CREDITS.
Introduction to basic techniques, care, maintenance and break down of the
airbrush. Control exercises, such as dots, lines, a cube, sphere, cylinder,
and more. Simple illustrations including the rendering of cartoon art.

CAT 303 AIRBRUSH II, 5 CREDITS.
Airbrush skills are refined and used in various projects including archi­
tectural rendering, product illustration, editorial illustration, and technical
illustration. Introduction to special effects, and the rendering of transpare­
cy, metal shadows, reflections, etc.

CAT 304 AIRBRUSH III, 5 CREDITS.
Advanced airbrush techniques used in projects such as album cover
design, and book cover illustration. Technical illustrations will include the
use and design of “cut-aways”, and an in depth study of special effects.
Students may be allowed to design and work on a self promotional piece
as a final assignment.

COMMERCIAL FOOD SERVICES (CFS)

Bessemer State Technical College offers the person interested in
pursuing a career in the field of food service, the opportunity to gain
necessary knowledge and practical experience for an entry-level job. The
student receives instruction from a staff that is highly skilled and
experienced in quantity food production and service.
Students usually complete the Diploma program in four quarters.

COMMERCIAL FOOD SERVICES
Diploma Program

<table>
<thead>
<tr>
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<td>CFS 121</td>
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</table>

TOTAL CREDIT HOURS 53

COMMERCIAL FOOD SERVICES
Course Descriptions

CFS 111 ORIENTATION TO FOOD SERVICE, 8 CREDITS.
An introduction to the cooking and serving of quantity foods. The student
has first-hand experience with the food and is able to familiarize himself
with the amounts of food required, proper preparation techniques, and
service as well as the equipment, sanitation, and safety regulations
required to facilitate the job.

Programs of Study and Course Descriptions 35
CFS 121 Preparation for Salads, Breads, Sandwiches and Desserts, 8 Credits.
An introduction to the basic procedures involved in the successful production of salads, breads, and desserts.

CFS 131 Preparation of Vegetables and Fruits, 8 Credits.
This course introduces the student to the available fruits and vegetables, their usual preparation and place in different menus. Also included are spices, soups, stocks, appetizers, cheese, and breakfast preparations. The opportunity to develop skills necessary for the practical application of each is available.

CFS 132 Basic Nutrition, 5 Credits.
This course has a two-fold purpose: (1) to introduce the student to general basic nutrition, and, (2) to familiarize the student with the same basics of proper care that must be taken in menu planning and food preparation for others.

CFS 141 Preparation of Meats, 8 Credits.
An introduction to the preparation of meats. The course also provides the technical knowledge necessary to become familiar with all types of meat, the usual methods of preparation, and of serving those preparations.

CFS 142 Menu Planning, 5 Credits.
An introduction to menu planning and its many components such as purchasing, inventory, and adaptation of menus for special situations. The student must have the skills developed in this class not only to function in a supervisory position but to understand the relationship to the total menu.

COMPUTER SCIENCE
(DPT)

The Associate in Applied Technology degree is an eighteen month program designed to prepare graduates for gainful employment in the field of business computer science. Major topics include program logic, application development using batch and on-line structured techniques, the use of personal computer and computer center operations. Extensive laboratory training with an equivalent system used by many businesses and industries in the area is a plus feature for the technical graduate entering the computer science field.

Programming languages studied are Assembly Language, RPG II, COBOL (interactive and batch), and BASIC. Personal Computer courses using popular spreadsheet and data base packages are part of this program. Courses in accounting, algebra, and English complete the curriculum.

COMPUTER SCIENCE
Certificate Program

COURSE | TITLE | THEORY | LAB | CR. HR.
--- | --- | --- | --- | ---
DPT 130 | Computer Fundamentals | 5 | 0 | 5
DPT 131 | COBOL Programming I | 5 | 0 | 5
DPT 141 | COBOL Programming II | 5 | 0 | 5
DPT 142 | Basic Assembly Language I | 5 | 0 | 5
DPT 145 | Business Spreadsheets Using Lotus 1-2-3 | 5 | 0 | 5
DPT 147 | Business Application Software | 5 | 0 | 5
DPT 181 | Database Concepts Using dBASE IV | 5 | 0 | 5
DPT 221 | COBOL Programming III | 5 | 0 | 5
DPT 223 | CICS Programming in COBOL | 5 | 0 | 5
DPT 224 | Advanced CICS Programming | 5 | 0 | 5
DPT 261 | Programming Language II | 5 | 0 | 5

Required General Education Courses:
ORN 100 | Orientation to College | 1 | 0 | 1
MAH 102 | Business Math | 5 | 0 | 5
MAH 108 | Elementary Algebra | 5 | 0 | 5
COM 101 | English Composition I | 5 | 0 | 5
PHC 203 | General Physics I | 5 | 0 | 5
SPC 106 | Fundamentals of Speech Communication | 5 | 0 | 5
PSH 270 | Business and Industrial Psychology | 5 | 0 | 5
HMN 100 | Humanities Forum | 1 | 0 | 1
HMN 100 | Humanities Forum | 1 | 0 | 1
HMN 100 | Humanities Forum | 1 | 0 | 1
Elective | 5 | 0 | 5
Elective | 5 | 0 | 5

TOTAL CREDIT HOURS: 66

NOTE: DPT 115 Keyboarding is strongly recommended for all Computer Science students who cannot type.

* Required Electives - Choose a class from any associate degree program other than the Computer Science Technology program.

TOTAL CREDIT HOURS: 114

PROGRAMS OF STUDY and COURSE DESCRIPTIONS

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COMPUTER SCIENCE (Contd)
Optional Related Courses:

ACT 111 Accounting I
DPT 112 Report Program Generator — RPG II
DPT 211 Basic Assembly Language II
DPT 214 Programming in BASIC
DPT 224 Advanced CICS Programming in COBOL

DATA ENTRY
Certificate Program
This program is designed to prepare graduates for gainful employment in the field of data entry. It includes hands-on experience with key-to-disk data entry equipment, personal computers using data entry software, and mainframe on-line terminals running real-time CICS applications. Emphasis is placed on speed and accuracy.

DPT 115 KEYBOARDING, 3 CREDITS.
This course is designed to provide the technical knowledge necessary to operate Data Entry equipment. The course also provides the student an opportunity to practice the skills necessary to perform data entry operations on personal computers.

DATA ENTRY
Certificate Program

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Required General Education Courses:

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<td>TE 101</td>
<td>Vo-Tech Communications Skills I</td>
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TOTAL CREDIT HOURS 42

COMPUTER SCIENCE
Course Descriptions

DPT 111 DATA PROCESSING CONCEPTS, 5 CREDITS.
This course is designed to introduce definitions and terminology unique to data processing along with an introduction to applications and programming used on both mainframe and personal computers. The course centers around computer system configurations, capabilities, internal representation of programs and data, internal operations, file design and organization, computer center management, and quality control over data.

DPT 112 REPORT PROGRAM GENERATOR—RPG II, 5 CREDITS.
The course prepares the computer programmer to communicate with computers to produce reports easily and efficiently. Every phase of RPG II is studied including disk and tape I/O using entry and key-sequenced VSAM files. PREREQUISITES: DPT 111, DPT 115, DPT 122 or Permission of the Instructor

DPT 115 KEYBOARDING, 3 CREDITS.
This course is designed to enable the student to learn to use a computer keyboard properly, accurately, and with ease. Whether the student is new at keyboarding or just brushing up, this course will help build speed and accuracy.

DPT 116 CONTROL LANGUAGE AND UTILITIES APPLICATION (PC DOS), 5 CREDITS.
This course is designed for students to become proficient in using the disk operating system for the IBM PS/2 and personal computer. The course provides an opportunity for students to gain hands-on experience with MS-DOS using basic and advanced commands.

DPT 121 DATA ENTRY SOFTWARE, 5 CREDITS.
This course is designed to provide (1) the technical knowledge necessary to run applications unique to Data Entry on personal computers; and (2) an opportunity to practice the skills necessary to perform data entry applications on personal computers.

DPT 123 DATA ENTRY II, 5 CREDITS.
This course is designed to provide the technical knowledge necessary to operate Data Entry equipment. The course also provides the student an opportunity to practice the skills necessary to become a Data Entry operator. PREREQUISITES: DPT 115 or Type 45 wpm.

DPT 130 COMPUTER FUNDAMENTALS, 5 CREDITS.
This course is a non-technical introduction to computers that covers the history and development of computers, microcomputer applications, how data is processed into information, file organization and data communications. It reviews computer equipment and includes use of a microcomputer to execute software packages.

DPT 131 DOS JOB CONTROL LANGUAGE, 5 CREDITS.
The concepts and practical applications of the job control language for a disk operating system are included. Instruction is based on DOS/VSE.

DPT 132 COBOL PROGRAMMING I, 5 CREDITS.
This course is designed to provide the technical knowledge necessary to perform basic input/output operations using structured ANSI COBOL. The course also provides the student an opportunity to practice the skills necessary in understanding: (1) card reading and printing operations; (2) page headings, page overflow, page numbering operations; (3) arithmetic operations and decision making statements; (4) switches and control break logic; and (5) switches, two control breaks and final totals. PREREQUISITES: DPT 111, DPT 115, DPT 122 or Permission of the Instructor

DPT 133 DATA ENTRY II, 5 CREDITS.
The purpose of this course is to provide the technical knowledge necessary to operate Data Entry equipment. The course also provides the student an opportunity to practice the skills necessary to become a Data Entry operator. PREREQUISITE: DPT 123

DPT 134 PROGRAMMING IN C, 5 CREDITS.
A complete course for learning to program in C that includes compiling, linking and executing C programs. The programs are developed and processed using Microsoft editors, compilers and linkage editor programs. All program development is performed using a personal computer platform.

DPT 141 COBOL PROGRAMMING II, 5 CREDITS.
This course is designed to provide the technical knowledge necessary to perform table creation, accessing and processing, in structured ANSI COBOL. The course also provides the student an opportunity to generate and evaluate core dumps to (1) understand how computer stores data internally and (2) read data as it is stored internally. PREREQUISITES DPT 132 or Permission of the Instructor

PROGRAMS OF STUDY and COURSE DESCRIPTIONS 37
DPT 142 BASIC ASSEMBLY LANGUAGE I, 5 CREDITS.
This course is designed to fill the need for a comprehensive treatment of S/370 symbolic programming techniques and concepts. Assembly language is studied as a programming language because (1) Assembly Language relates directly to all phases of any computing system; (2) an understanding of Assembly Language provides a deeper understanding for higher level languages such as COBOL and RPG; and (3) Assembly Language is time and memory efficient and is used to improve production in many shops. PREREQUISITES: DPT 111, DPT 115, DPT 122 or Permission of the Instructor

DPT 144 TRANSACTION BASED DATA ENTRY, 3 CREDITS.
The purpose of this course is to provide the technical knowledge necessary to operate on-line computer terminal equipment. The course also provides the student an opportunity to practice the skills necessary to do transaction based data entry jobs.

DPT 145 BUSINESS SPREADSHEETS USING LOTUS 1-2-3, 5 CREDITS.
This course is designed to (1) provide the student a complete educational environment for learning PC-based spreadsheets; (2) teach the fundamentals of worksheets, graphics, and databases; and (3) prepare students to effectively and efficiently use Lotus 1-2-3 throughout their educational careers and into their future careers. PREREQUISITES: DPT 115 or Permission of the Instructor

DPT 146 DATABASE TECHNIQUES USING DBASE III PLUS, 5 CREDITS.
This course is designed to (1) provide the student a complete educational environment for learning PC-based database systems; (2) teach the fundamentals of database management for microcomputers; (3) prepare students to effectively and efficiently use dBASE III PLUS throughout his/her career. PREREQUISITES: DPT 115 or Permission of the Instructor

DPT 147 BUSINESS APPLICATION SOFTWARE, 5 CREDITS.
This course is designed to provide the technical knowledge necessary to understand the three major software packages—Lotus 1-2-3, dBASE III PLUS, and WordPerfect. The course also provides hands-on experience in operation of the three major software packages and provides the technical knowledge necessary to operate the IBM/PC using these packages. PREREQUISITES: DPT 115 or Permission of the Instructor

DPT 151 COMPUTER FUNDAMENTALS - PART I, 2.5 CREDITS.
This course is the first part of Computer Fundamentals (DPT 130). The course is divided to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

DPT 152 COMPUTER FUNDAMENTALS - PART II, 2.5 CREDITS.
A continuation of DPT 151.

DPT 181 DATABASE CONCEPTS USING DBASE IV, 5 CREDITS.
This is a comprehensive course using a relational database that offers full database management features and permits the creation of specific applications through the use of its programming capabilities.

DPT 211 BASIC ASSEMBLY LANGUAGE II, 5 CREDITS.
A continuation of Basic Assembly Language I (DPT 142). PREREQUISITES: DPT 142 or Permission of the Instructor

DPT 214 PROGRAMMING IN BASIC, 5 CREDITS.
This course is designed to provide the technical knowledge necessary to perform input/output operations, arithmetic operations, comparing, loop-
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**DENTAL ASSISTING TECHNOLOGY**

**Course Descriptions**

**DAT 111 ANATOMY AND PHYSIOLOGY, 5 CREDITS.**

This course is a general study of the structure and function of 11 body systems, with emphasis on specific structures of the head and neck. Embryological, histological, and morphological correlations prove the foundation essential to understanding of dental health and oral disease.

**DAT 112 DENTAL MATERIALS AND LAB PROCEDURES, 4 CREDITS.**

This course consists of four instructional units designed to provide the student with the knowledge and skills necessary to safely manipulate and apply the materials used in the general practice of dentistry. PREREQUISITE: DAT 111

**DAT 113 INTRODUCTION TO DENTAL ASSISTING, 4 CREDITS.**

This course consists of three instructional units designed to familiarize the student with the history of dentistry; provide the knowledge necessary to instruct patients in oral health care; and exhibit appropriate ethical conduct in the dental office. PREREQUISITE: DAT 111

**DAT 114 PRE-ClinICAL PROCEDURES, 2 CREDITS.**

This course is designed to provide the student with the basic knowledge and skill necessary to assist the dentist during oral examinations, diagnoses, and treatment. PREREQUISITE: DAT 123

**DAT 121 DENTAL ASSISTING II, 4 CREDITS.**

This course consists of seven instructional units designed to provide the student with the knowledge and skills necessary to function effectively, efficiently, and safely while assisting with operative chairside procedures and pedodontic, periodontic, orthodontic, endodontic and prosthodontic examinations and treatments, and oral surgery. PREREQUISITES: DAT 111, DAT 112, DAT 113, DAT 114 and DAT 123

**DAT 122 DENTAL RADIOGRAPHY, 4 CREDITS.**

This course includes a study of radiation safety; components of the x-ray machine; biological effects; preparing the patient for exposing film in paralleling technique, bisecting technique and panoramic technique; errors in processing and exposure techniques; identifying anatomic landmarks; mounting film; and an accurate record of patient identification of film. PREREQUISITES: DAT 111 and DAT 123

**DAT 123 BASIC SCIENCE, 5 CREDITS.**

This course consists of five instructional units designed to give the student basic skills and knowledge in the areas of microbiology and infection control; bacteriology, dental caries, and oral pathology; nutrition; applied drugs; and medical and dental emergencies. PREREQUISITE: DAT 111

**DAT 131 BUSINESS ADMINISTRATION FOR THE DENTAL ASSISTANT, 3 CREDITS.**

This course is designed to prepare the student, through simulation, to assume responsibility for many of the routine business and operational details of a dental practice.

**DAT 132 DENTAL ASSISTING CLINICAL EXPERIENCE I, 5 CREDITS.**

This course is designed to provide each student the opportunity to participate in the dental assisting arena as an active team member in a dental office or dental school. Participation will include at least 150 hours of rotation in specialties such as primary care, restorative, crown and bridge, removable prosthodontics, oral surgery, pediatric clinic, and geriatrics. PREREQUISITES: DAT 111, DAT 112, DAT 113, DAT 114, DAT 121, DAT 122 and DAT 123

**DAT 141 DENTAL ASSISTING SEMINAR, 4 CREDITS.**

This course is an evaluation of the occupational work experience phase, including clinical and office procedures. Students are encouraged to discuss integration of didactic and laboratory instruction with the clinical practice. PREREQUISITE: DAT 191

**DAT 142 DENTAL ASSISTING CLINICAL EXPERIENCE II, 8 CREDITS.**

This course is designed to provide practical experience under the supervision of dentists in private dental offices with emphasis on chair-side procedures, instrument care, oral hygiene. This clinical experience enables the student to assist in all aspects of general dentistry practice. PREREQUISITES: DAT 111, DAT 112, DAT 114, DAT 121, DAT 122, DAT 123, DAT 124, DAT 131 and DAT 132

**DIESEL MECHANICS (DEM)***

The Diesel Mechanics program is designed to train mechanics who have the knowledge and basic skills necessary to repair on-the-road equipment. The student receives the theory of the diesel engine and various components and immediately applies this knowledge in laboratory assignments with truck and other diesel and gasoline-powered equipment used for the transportation of freight and people. Instruction includes the disassembly, repair, and assembly of engines (gasoline and...
I diesel), final drives, clutches, hydraulic and pneumatic systems, and other components. Students usually complete the Diploma program in six quarters.

THEMECHANIC
Diploma Program

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Required General Education Courses:
- ORN 100 Orientation to College 1 0 1
- VTE 101 Vo-Tech Communication Skills 5 0 5
- VTM 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 90

DIESEL MECHANICS
Certificate Program

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TOTAL CREDIT HOURS 43

DIESEL MECHANICS
Course Descriptions

DEM 121 Electrical Systems, 7 CREDITS.
A study of the fundamentals of electricity and magnetism, and basic circuitry and electrical charging systems as they relate to diesel mechanics. The student learns to use testing equipment to determine malfunctions of alternators, starters, and generators and the procedures necessary to correct the malfunctions.

DEM 122 Diesel Engine Tune-up, 13 CREDITS.
The student becomes familiar with mechanical and electrical testing equipment used to diagnose malfunctions of the ignition system and to determine the general condition of industrial engines. The student learns the function of the injection fuel system and how to maintain the system for efficient operation.

DEM 132 Power Trains, 6 CREDITS.
A study of the transmission of power from the engine with emphasis on drive shafts, universal joints, rear axles, differentials, bearings, and seals.

DEM 141 Clutches and Manual Transmissions, 6 CREDITS.
The course includes an in-depth study of types and construction of clutches and transmissions with emphasis on troubleshooting and service procedures.

DEM 143 Minor Diesel Engine Overhaul, 8 CREDITS.
The student learns the procedure for rebuilding the engine in the vehicle. The importance of the oiling system, cooling system, heat transfer, bearings and pistons are completely covered. The student learns the procedure for inspecting and servicing all engine parts that are to be reused.

DEM 144 Air Conditioning Systems, 6 CREDITS.
The student learns the different types of compressors, condensers, evaporators, and lines used on diesel equipment and how to troubleshoot and repair.

DEM 161 Major Overhaul, 4 CREDITS.
The student will disassemble, analyze the component parts, make necessary repairs, adjustments, and reassemble different types of industrial engines. The student will have a comprehensive study of the internal operation of various diesel engines.

DEM 162 Electrical Diagnosis/Troubleshooting, 4 CREDITS.
This course will provide the student a thorough knowledge of the electrical systems used on diesel equipment. Diagnosis of the electrical problems through the use of testing equipment and the proper methods and techniques to make repairs.

DEM 163 Brake System Diagnosis/Troubleshooting, 4 CREDITS.
The student will receive a comprehensive study on the operation of the hydraulic and pneumatic braking systems, knowledge of the master cylinder, brake cylinders, and line distributions. Complete diagnosis of the brake system and the proper methods of repair is included.

DEM 164 Drive Trains/Troubleshooting, 4 CREDITS.
This course includes the study of the drive train including bearings, gearings, seals, and all internal components of the differentials. It includes the drive shaft mechanism and its operation. The student will gain a thorough knowledge of the assembly and disassembly of the various power trains used in conjunction with diesel mechanics.

DEM 165 Minor Overhaul, 4 CREDITS.
The course includes a comprehensive study of the cooling and lubrication systems used in diesel engines and complete inspection techniques used in determining the re-use or replacement of bearings, pistons and other internal components of the diesel engine.
DELM 166 Service and Tune-up/Troubleshooting, 4 Credits.
Practical applications used in tuning-up a diesel engine. Includes diagnosing problems and corrective measures used in tuning a diesel engine. In-depth study of the fuel system is included.

DELM 167 Manual Transmissions and Clutches/Troubleshooting, 4 Credits.
This course deals with gearings, ratios, bearings, and parts used in the manual transmission. A detailed study of clutches, their use and functions is covered. The student becomes proficient in diagnosing problems and making repairs on manual transmissions.

DELM 212 Air and Hydraulic Brakes, 6 Credits.
A study of the operation of hydraulic and pneumatic braking systems, and the procedures of troubleshooting and servicing components.

DELM 221 Blowers and Turbochargers, 8 Credits.
A study of the function of blowers and turbochargers, and their service, repairs, and troubleshooting.

DELM 243 Major Diesel Engine Overhaul, 13 Credits.
The student learns to disassemble various types of industrial engines, diagnose defective parts and make necessary replacements to return the engine to efficient operation.

DELM 246 Pump Rebuilding and Testing, 6 Credits.
A study of pump operation, including theory, repair, troubleshooting and testing of units.

DRAFTING AND DESIGN TECHNOLOGY (DDT)

The skilled drafting and design technician is an essential link between the engineer and the shop where the final product is manufactured. As a member of a technical team, the drafting technician will do detail and layout drafting, design, and development. They may advance to positions in checking, estimating, advanced design, and supervision. The Associate in Applied Technology Degree program is designed to qualify the graduate for performance of these duties and for advancement on the job when associated with the appropriate experience. Students usually complete the Associate Degree program in seven quarters.

DRAFTING AND DESIGN TECHNOLOGY
Associate in Applied Technology

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TOTAL CREDIT HOURS 114

Optional Related Courses:

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DRAFTING AND DESIGN TECHNOLOGY (CADD)
Certificate Program

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TOTAL CREDIT HOURS 31

DRAFTING AND DESIGN TECHNOLOGY
Certificate Program (Evening)

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TOTAL CREDIT HOURS 34

PROGRAMS OF STUDY and COURSE DESCRIPTIONS 41
DRAFTING AND DESIGN TECHNOLOGY
Course Descriptions

DDT 110 RELATED TECHNICAL DRAWING, 4 CREDITS.
Introductory drafting techniques and procedures are presented to include lettering, line work, instrument use, and geometric construction techniques as elementary basics. Multiview orthographic projection concepts are also addressed. A drafting project relevant to the student's area of specialization will be completed. This course is designed for students not majoring in Drafting and Design.

DDT 111 TECHNICAL DRAWING I, 6 CREDITS.
The material addressed includes freehand lettering; care and use of drafting instruments, materials and equipment; geometric construction with applications; pictorial representation of shape description; the theory of third-angle orthographic projection with extensive multiview drawing applications emphasizing the rules and exceptions established in the American National Standard Drafting Specification (ANSI Y-14). A variety of problems are done for practice in the theory and conventions.

DDT 121 TECHNICAL DRAWING II, 6 CREDITS.
An in-depth study of the principles and applications of sectional view techniques to include fall, half, broken out, revolved, aligned and off-set sections. Drawing requiring the application of several types of sections will be completed by the student. Auxiliary view techniques will be examined to include development of primary and secondary auxiliary views with solutions of dihedral angle applications. Basic descriptive geometry concepts as required in design applications will be addressed in practical applications. PREREQUISITES: DDT 111 or placement

DDT 131 TECHNICAL DRAWING III, 6 CREDITS.
Dimensioning techniques, principles, and special considerations are examined with analysis and interpretation required to complete selected projects. Limit dimensioning and tolerance concepts are addressed to include application of the American National Standards Institute (ANSI) Tables of Fits. Implications and specifications as pertaining to threads, fasteners, and springs with typical application projects are completed by the student. PREREQUISITES: DDT 111 or placement

DDT 132 INDUSTRIAL MATERIALS & PROCESSES, 5 CREDITS.
This course sets forth the principles and methodology of materials selection and application, explains the types of properties used to evaluate materials, and describes broadly the basic nature and structure of all materials. The emphasis is directed to solids since liquids and gases are principally considered chemicals.

DDT 141 BLUEPRINT READING I, 3 CREDITS.
This course offers instruction in the principles of reading and interpreting basic machine trades blueprints. Students will study the different types of blueprints, the alphabet of lines, shop sketching, orthographic views, and dimensioning and tolerance techniques. Students will be required to read basic mechanical blueprints.

DDT 142 BLUEPRINT READING II, 3 CREDITS.
This is an extension of DDT 141. This course offers instruction in advanced blueprint reading. Students will study advanced dimensioning techniques, notes and symbols, and screw threads as they apply on mechanical blueprints. Students will be required to read advanced mechanical blueprints.

DDT 151 TECHNICAL DRAWING I - PART I, 3 CREDITS.
This course is the first half of Technical Drawing I (DDT 111). The course is divided to accommodate evening students.

DDT 152 TECHNICAL DRAWING I - PART II, 3 CREDITS.
The second half of DDT 151.

DDT 153 TECHNICAL DRAWING II - PART I, 3 CREDITS.
This course is the first half of Technical Drawing II (DDT 121). The course is divided to accommodate evening students.

DDT 154 TECHNICAL DRAWING II - PART II, 3 CREDITS.
The second half DDT 153.

DDT 155 TECHNICAL DRAWING III - PART I, 3 CREDITS.
This course is the first half of Technical Drawing III (DDT 131). The course is divided to accommodate evening students.

DDT 156 TECHNICAL DRAWING III - PART II, 3 CREDITS.
The second half of DDT 155.

DDT 157 ADVANCED DRAFTING I - PART I, 3 CREDITS.
This course is the first half of Advanced Drafting I (DDT 211). This course is divided to accommodate evening students.

DDT 158 ADVANCED DRAFTING I - PART II, 3 CREDITS.
The second half of DDT 157.

DDT 200 INTRODUCTION TO CADD, 5 CREDITS.
An introduction to the many functions and applications of the Computer Integrated Manufacturing (CIM) environment with specific emphasis in Computer Aided Design Drafting (CADD). Terms, hardware, software and applications are introduced. Basic DOS, AutoCAD, setup, drawing aids, and drawing files operations are addressed in order to establish a foundation for the graphics constructions of CADD. PREREQUISITES: DDT 111 or placement

DDT 201 CADD I (BASIC AUTOCAD), 5 CREDITS.
The purpose of this course is to provide an understanding of the features, limitations, and considerations associated with the operation of a micro computer-based computer aided design or drafting (CAD) system. Utilizing AutoCAD Release 10 software, the student shall examine CAD drawing fundamentals, display control, graphic entity construction and editing, and dimensioning of two-dimensional drawings. PREREQUISITES: DDT 200 or placement

DDT 202 CADD II (ADVANCED AUTOCAD), 5 CREDITS.
This course deals with Advanced AutoCAD topics which support the strengthening of CAD operations. The student shall explore advanced dimensioning techniques, inquiry, operations with blocks and symbols, attributes, and three-dimensional modeling concepts. PREREQUISITES: DDT 201 or placement

DDT 203 CADD III (AUTOCAD CUSTOMIZATION), 5 CREDITS.
This course is intended for the advanced AutoCAD user. The course introduces students to AutoCAD's various customization techniques to include DOS batch file creation, script files, slide and slide library, menu customization, custom command macros, and basic AutoLisp grammar. The student will be assigned various projects to support the different customization techniques. PREREQUISITES: DDT 201 or placement

DDT 204 CADD IV, 5 CREDITS.
This course provides an opportunity for the further study of 3-D Design modeling. The student utilizes one of the three CAD software packages available in the Drafting Department as the software of choice for this effort. The available software packages are: AutoCAD, release 12; MicroStation, version 4.0; and, Personal Designer, version 4.0. Solid...
This course provides an understanding of the features, limitations, and consideration associated with the operation of a microcomputer-based Computer Aided Design or drafting (CAD) system. Utilizing Personal Design version 4 software, the student examines CAD drafting and design modeling fundamentals, display control, graphic entity construction and editing, and dimensioning of two-dimensional drawings. The instructional approach is independent study. PREREQUISITE: DDT 204

DDT 206 CADD VI, 5 CREDITS.

This course provides an understanding of the features, limitations, and consideration associated with the operation of a microcomputer-based Computer Aided Design or drafting (CAD) system. Utilizing MicroStation version 4 software, the student examines CAD drafting fundamentals, display control, graphic entity construction and editing, and dimensioning of two-dimensional drawings. The instructional approach is independent study utilizing ten, two-hour lectures on VHS format tape. The self-paced tutorial workbook for the reference text provides sequential direction for the student. PREREQUISITES: DDT 201, DDT 121, DDT 131 or placement

DDT 211 ADVANCED DRAFTING I (MACHINE), 6 CREDITS.

Machine drafting is the largest specialty area of drafting in the United States in terms of the scope of the field and also the number of job opportunities available. The study addresses the following areas: (1) Geometric dimensioning and tolerance; (2) Documentation systems and techniques as pertaining to (a) engineering controls, (b) drawing organization and content, (c) single part drawing types, and (d) assembly drawing types; (3) Assembly drawing with parts list and appropriate general notes along with detail drawings of design items of the assembly using the mono-detail drawings system; (4) The applications and use of the 0.1 inch micrometer, vernier caliper, thread pitch gauge, radius gauge, depth gauge, and the 6-inch machinist's scale; (5) The design layout of an assembly with a bearing application along with form, fit and function considerations of the mating parts. Use of Machinist's Handbook, Mechanical Engineer's Handbook, and various vendor catalogs will be introduced; (6) Complete documentation to support manufacturing needs from a provided assembly sample taking all information from the sample using measurement, analysis, and research procedures. PREREQUISITES: DDT 121 and DDT 131

DDT 212 INTRODUCTION TO CIM, 5 CREDITS.

This course provides an introduction to the concepts associated with the integration of the separate and joint objectives of CAD and CAM. The techniques involved with 3-D part definition as a CAD (AutoCAD) model and the further translation of this part description to the CAM software through DXF means will be addressed. SmartCAM software will be utilized as a stand-alone package for development of the CNC Process Model with emphasis on advanced modeling techniques. PREREQUISITE: DDT 202 or placement

DDT 221 ADVANCED DRAFTING II (ELECTRICAL), 6 CREDITS.

Drafting and design techniques are introduced dealing with production of electronic equipment for consumer, commercial, and military applications. The various specialized drawings of electrical/electronics drafting are emphasized specifically schematic drawings, connection or wiring diagrams (four unique types), industrial electrical diagrams, ladder schematics, flow-block diagrams, and documentation types and techniques related to printed circuitry. PREREQUISITES: DDT 110 and DDT 111 or placement

DDT 231 ADVANCED DRAFTING III (STRUCTURAL), 6 CREDITS.

This introductory course in structural drafting familiarizes the student with the standard structural steel shapes along with the use of the American Institute of Steel Construction (AISC) Manual and the AISC Structural Steel Detailing Manual. The welding phase includes an in-depth study of welding symbols' significance and applications along with an introduction to the welding process. Practical application drawings will be completed culminating in the drawing of a weldment assembly. PREREQUISITES: DDT 121 and DDT 131

DDT 241 ADVANCED DRAFTING IV (WELDING/PIPING), 6 CREDITS.

Utilizing Audio/Visual resources and a detail study/project course guide, the elements of Welding Applications/Symbology will be addressed along with an introductory study of basic piping fundamentals as related to a refinery or petro-chemical plant environment. Drawing types examined will be both the single-line diagram and double-line pipe viewing systems to include dimensioning, callouts, and specifications. The isometric drawing characteristics will be addressed using both the single and double-line techniques with basic piping data integrated into the assigned projects. Instructional approach shall be independent study format. PREREQUISITES: DDT 131 or concurrent.

EMERGENCY MEDICAL TECHNICIAN (EMT)

Bessemer State Technical College offers evening courses in Emergency Medical Services, Basic and Intermediate. EMT's provide immediate health care at the scene of illnesses or traumatic emergencies. Students usually complete the program in three quarters.

EMERGENCY MEDICAL TECHNICIAN Certificate Program

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<td>EMT 141</td>
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PROGRAMS OF STUDY and COURSE DESCRIPTIONS 43
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<td>EMT 189</td>
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**EMERGENCY MEDICAL TECHNICIAN**

**Course Descriptions**

**EMT 100 CPR, 1 CREDIT.**
This course is designed to provide CPR training for health care workers in accordance with the American Heart Association's "Course C: Basic Life Support for Health Care Providers." Students must pass both a written and performance test to meet the course completion requirements.

**EMT 101 FIRST AID, 1 CREDIT.**
This course is designed to provide accurate and comprehensive information and procedures on first aid - the immediate care given to the injured or suddenly ill person.

**EMT 102 CPR AND FIRST AID, 2 CREDITS.**
This course is designed to provide accurate, comprehensive and up-to-date information and procedures on first aid and CPR. Students successfully completing the course are eligible to receive certification cards in both first aid and CPR.

**EMT 140 PREPARATORY/TRAUMA MANAGEMENT FOR THE BASIC EMT, 4 CREDITS.**
This course consists of four hours of theory and one hour of laboratory per week. The course provides the student with theory, demonstration, and experiential laboratory in the following areas contained in the National Standard Training Curriculum (NSTC) for the Basic EMT: Anatomy, physiology, and patient assessment; bleeding and shock; soft tissue injuries; principles of musculoskeletal care and fractures; injuries to the head, face, eye, neck, spine, chest, abdomen, and genitilia; and assessment and management of burns. COREQUISITES: EMT 141 and EMT 142 or EMT 143. PREREQUISITES: Admission to the program.

**EMT 141 MEDICAL EMERGENCIES FOR THE BASIC EMT, 4 CREDITS.**
This course consists of four hours of theory and one hour of laboratory per week. The course provides the student with theory, demonstration, and experiential laboratory in the following areas contained in the National Standard Training Curriculum (NSTC) for the Basic EMT: Airway obstruction and respiratory arrest; cardiac arrest; use of airway adjuncts; medical emergencies; emergency childbirth; environmental emergencies; and psychological aspects of emergency care. COREQUISITES: EMT 140 and EMT 142 or EMT 143. PREREQUISITES: Admission to the program.

**EMT 142 PRE-HOSPITAL ENVIRONMENT FOR BASIC EMT, 4 CREDITS.**
This course consists of two hours of theory, two hours of laboratory and three hours of clinical per week. The course provides the student with theory, demonstration, and experiential laboratory in the following areas contained in the National Standard Training Curriculum (NSTC) for the Basic EMT: Introduction to emergency medical care training; roles and responsibilities; legal aspects; lifting and moving patients; principles of extrication; ambulance operations; disaster operations; and hazardous materials. The course also provides for clinical practice in the Emergency Department and/or Prehospital Emergency Medical Service (EMS) units. COREQUISITES: EMT 140 and EMT 141. PREREQUISITES: Admission to the program.

**EMT 180 PRE-HOSPITAL ENVIRONMENT FOR THE INTERMEDIATE EMT, 4 CREDITS.**
This course consists of four hours of theory and one hour of laboratory per week. The course provides the student theory, demonstration, and experiential laboratory in the following areas contained in the National Standard Training Curriculum for the Intermediate EMT: Roles and responsibilities of the Intermediate EMT; the EMS System; medical/legal considerations; EMS communications; introduction to medical terminology; and general patient assessment and initial management. This course is one of six courses (EMT 180, 181, 182, 183, 185 and 189) required for successful completion of Intermediate EMT in Alabama. PREREQUISITES: EMT 140, EMT 141, and EMT 142 or 143 within the last 24 months, current Alabama license as a Basic EMT and placement testing; or successful completion of a NSTC course for the Basic EMT within the last 24 months and placement testing.

**EMT 181 PREPARATORY MANAGEMENT FOR INTERMEDIATE EMT, 4 CREDITS.**
This course consists of four hours of theory and one hour of laboratory per week. The course provides the student theory, demonstration, and experiential laboratory in the following areas contained in the National Standard Training Curriculum for the Intermediate EMT: The respiratory system; airway and ventilation control; and assessment and management of shock. This course exceeds the NSTC standards as required by Alabama law to comply with the scope of practice for the Intermediate EMT. This course is one of six courses (EMT 180, 181, 182, 183, 185, 189) required for successful completion of Intermediate EMT in Alabama. PREREQUISITES: EMT 140, EMT 141, EMT 142 or 143 within the last 24 months; or hold a current Alabama license as a Basic EMT and placement testing; or successful completion of a NSTC course for the Basic EMT within the last 24 months and placement testing.

**EMT 182 CARDIOVASCULAR ELECTROPHYSIOLOGY AND MANAGEMENT, 4 CREDITS.**
This course consists of four hours of theory and one hour of laboratory per week. The course provides the student with theory in anatomy and physiology of the myocardium to include the electrical conduction system as well as the interpretation of lead II electrocardiograms. The course includes demonstration and experiential laboratory for techniques and management of dysrhythmias. This course exceeds the National Standard Training Curriculum as required by Alabama law to comply with the scope of practice for the Intermediate EMT. This course is one of six courses (EMT 180, 181, 182, 183, 185, 189) required for successful completion of Intermediate EMT in Alabama. PREREQUISITES: EMT 140, EMT 141, EMT 142 or 143 within the last 24 months; or hold a current Alabama license as a Basic EMT and placement testing; or successful completion of a NSTC course for the Basic EMT within the last 24 months and placement testing.

**EMT 183 DIDACTIC/SKILLS COMPETENCIES FOR THE INTERMEDIATE EMT, 2 CREDITS.**
This course consists of one hour of theory and two hours of laboratory per week. The course provides the student with instructional review and experiential laboratory for ongoing evaluation of the student’s performance to validate knowledge of didactic and practical skills material contained in the National Standard Training Curriculum for the Intermediate EMT. This course is one of six courses (EMT 180, 181, 182, 183, 185, 189) required for successful completion of Intermediate EMT.
Alabama. PREREQUISITES: Admission to the Intermediate EMT level of training or instructor approval.

EMT 185 CRITICAL CARE CLINICAL AND CASE REVIEW, 3 CREDITS.

This course consists of one hour of theory and six hours of clinical per week. The course provides the student with opportunities to participate in clinical case discussion and clinical experience in the critical care areas of the hospital. Specific skills objectives are accomplished by the student relating directly to previous didactic work. In addition to clinical experience accomplished, each student will be required to perform patient care research and complete written assignments. This course is one of six courses (EMT 180, 181, 182, 183, 185, 189) required for successful completion of Intermediate EMT in Alabama. PREREQUISITES: Admission to the Intermediate EMT level of training.

EMT 189 ADVANCED LIFE SUPPORT FIELD CLINICAL AND CASE REVIEW, 5 CREDITS.

This course consists of one hour of theory and twelve hours of clinical per week. This course provides the student with opportunities to participate in review and discussion of emergency medical records. In addition, the student will gain introductory field experience with Advanced Life Support Pre-hospital EMS units. Specific skills objectives are accomplished by the student relating directly to previous didactic work. In addition to the field clinical experience accomplished, each student will be required to perform patient care research and complete written assignments. This course is one of six courses (EMT 180, 181, 182, 183, 185, 189) required for successful completion of Intermediate EMT in Alabama. PREREQUISITES: Admission to the Intermediate EMT level of training.

ENGLISH (COM, SSS, VTE)

COM 051 BASIC WRITING - PART I, 2.5 CREDITS.

This course is designed to meet the needs of students with writing deficiencies. It may include instruction in grammar, usage, mechanics, sentence structure, and paragraph development.

COM 052 BASIC WRITING - PART II, 2.5 CREDITS.

A continuation of COM 051.

COM 060 DEVELOPMENTAL WRITING, 3 CREDIT.

A non-credit course, this course is designed to upgrade writing skills to enable students to enter another field of study.

COM 091 BASIC WRITING I, 3 CREDITS.

This course is designed to aid students who need assistance with writing skills. It will include instruction in grammar usage, mechanics, sentence structure, and expository paragraph development.

COM 101 ENGLISH COMPOSITION I, 5 CREDITS.

A major writing course, COM 101 includes instruction and frequent practice in developing paragraphs and essays, with emphasis on both the composing process and final product.

COM 102 ENGLISH COMPOSITION II, 5 CREDITS.

Includes instruction and frequent practice in developing essays with emphasis on both the composing process and final product. The writing assignments are based primarily on a critical analysis of literature. COM 102 also includes instruction in and practice of research skills.

COM 130 TECHNICAL REPORT WRITING, 5 CREDITS.

This course includes instruction in various types of writing required in scientific and technical fields.

COM 151 ENGLISH COMPOSITION - PART I, 2.5 CREDITS.

This course is the first part of English Composition I (COM 101). The course is divided to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

COM 152 ENGLISH COMPOSITION - PART II, 2.5 CREDITS.

A continuation of COM 151.

SSS 082 BASIC COMMUNICATION SKILLS, 2 CREDITS.

This course is designed to prepare eligible students to perform satisfactorily or above in various major and related courses. Diagnostic testing is done to assess specific needs in reading, writing and/or grammar. An individualized and small group instructional approach is employed to improve the student’s ability in vocabulary, spelling, reading comprehension, grammar, speech, and writing according to the student’s need.

VTE 101 VO-TECH COMMUNICATION SKILLS I, 5 CREDITS.

This course is designed to meet the needs of students in non-degree occupational programs. The course will focus on application of communication skills to these occupations. Instruction may include grammar, usage, mechanics, sentence structure, paragraph development, listening, and speaking.

VTE 102 VO-TECH COMMUNICATION SKILLS II, 5 CREDITS.

The course focuses on application of communication skills. It may include grammar, usage, mechanics, sentence structure, paragraph development, listening, letter/memo writing, and report writing and presentation.

GED PREPARATION (RED).

RED 060 GED PREPARATION, 0 CREDIT.

The objectives for this course are to master the basic skills in the five academic areas (mathematics, natural science, social science, language, and reading comprehension) necessary for completion of the GED test battery.
Bessemer State Technical College offers a Diploma program for persons interested in entering the field of printing and publishing. The program is designed to acquaint the student with the major phases of producing quality printed material and to provide the student the opportunity to specialize in a particular occupational area in offset printing.

The student learns the theory of offset printing through individual and classroom instruction and applies this newly gained knowledge in a shop of modern equipment. Students usually complete the Diploma program in four quarters.

**GRAPHIC AND PRINTING**

**Diploma Program**

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<td>CAT 169</td>
<td>Intro to Computer Graphics</td>
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<td>CAT 170</td>
<td>Computerized Graphics</td>
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<td>GPC 141</td>
<td>Platemaking and Stripping</td>
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<td>GPC 142</td>
<td>Composition and Paste-up</td>
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<td>GPC 221</td>
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**Required General Education Courses:**

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**TOTAL CREDIT HOURS** 62

**Certificate Program**

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**TOTAL CREDIT HOURS** 51

**GRAPHIC AND PRINTING**

**Course Descriptions**

**GPC 121 OFFSET PRESS OPERATION, 7 CREDITS.**
A study of the jobs, shop safety, printing processes and operation of the equipment used in the offset print shop. Students will be introduced to inks and inking systems, regulating pressures and offset presswork troubleshooting. The course provides extensive opportunities to gain hands-on experience. **PREREQUISITE:** CAT 111.

**GPC 131 GRAPHIC ARTS CAMERA, 5 CREDITS.**
A study of the function, operation and description of the graphic arts camera to achieve suitable copy preparation for printing. The course includes line and halftone photography and darkroom procedures for developing lithographic film, processing diffusion transfer materials, duplicating and contacting film. This course is part of the core curriculum for both the Graphic and Printing and Commercial Art programs.

**GPC 141 PLATEMAKING AND STRIPPING, 5 CREDITS.**
A study of printing plate characteristics including surface plates and deep-etch plates and the exposure devices used in the preparation of plates for offset printing.

**GPC 142 COMPOSITION AND PASTE-UP, 5 CREDITS.**
The study of type styles, composing machines, principles of copy planning and copy preparation used in the preparation of completed art work and mechanics to furnish the camera operator with camera ready copy.

**GPC 152 OFFSET PRESS OPERATIONS - PART I, 3.5 CREDITS.**
This course is the first half of Offset Press Operations (GPC 121). The course is divided to accommodate evening students.

**GPC 153 OFFSET PRESS OPERATIONS - PART II, 3.5 CREDITS.**
The second half of GPC 152.

**GPC 154 ADVANCED PRINTING - PART I, 3.5 CREDITS.**
This course is the first half of Advanced Printing (GPC 221). The course is divided to accommodate evening students.

**GPC 155 ADVANCED PRINTING - PART II, 3.5 CREDITS.**
The second half of GPC 154.

**GPC 156 PROCESS COLOR PRINTING - PART I, 3.5 CREDITS.**
This course is the first half of Process Color Printing (GPC 231). The course is divided to accommodate evening students.

**GPC 157 PROCESS COLOR PRINTING - PART II, 3.5 CREDITS.**
The second half of GPC 156.

**GPC 211 BINDERY AND ESTIMATING, 5 CREDITS.**
A study of the equipment used in the finishing department (folder, stitcher, collator, paper cutter, paper drill, padding press, etc.) of the printing shop, also cost involved in producing a finished printed product.

**GPC 221 ADVANCED PRINTING, 7 CREDITS.**
This course is designed to help students sharpen one and two-color quality printing skills and learn the equipment used in the finishing department (folder, stitcher, collator, paper cutter, paper drill and padding press). Lab work offers the student an opportunity to refine and develop techniques for saving time, reducing waste, and boosting overall productivity. **PREREQUISITE:** GPC 121.
This course is designed to help students obtain consistently high quality color results, from the offset duplicator with four passes through. Step-by-step, the student learns to control color density, achieve accurate register and print high quality halftone dot patterns. With the practical hands-on know-how gained through this course students will be able to develop a strong offset press portfolio. **PREREQUISITE:** GPC 121 and GPC 211.

The Horticulture program presents subject matter and laboratory learning activities that will prepare the student for successful employment in the production, management, sales, and service areas of horticulture.

The student receives general background information in the areas of soils, fertilizers, plant propagation, and horticulture sciences. Courses in the area of landscaping, landscape maintenance, food crops, pest control, turf grasses, nursery and greenhouse production are also offered to provide the student with knowledge necessary to seek and hold employment. Laboratory courses are designed to expose students to work habits, skills, and machinery needed in most horticultural enterprises. Students experience is supervised and is provided in campus laboratories, greenhouses, nurseries, and landscape situations. The use of field trips and co-op training greatly helps to broaden the student's education. Students usually complete the Associate Degree requirements in six quarters.

**Horticulture (Contd)**

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**Required General Education Courses:**

- ORN 100 Orientation to College | 1 | 0 | 1
- COM 101 English Composition I | 5 | 0 | 5
- HMN 100 Humanities Forum | 1 | 0 | 1
- HMN 100 Humanities Forum | 1 | 0 | 1
- MAH 100 College Mathematics | 5 | 0 | 5
- MAH 102 Business Mathematics | 5 | 0 | 5
- PSH 220 Business and Industrial Psychology | 5 | 0 | 5

**Horticulture (Golf Course Management Option)**

**Associate in Applied Technology**

<table>
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**Required General Education Courses:**

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- COM 101 English Composition I | 5 | 0 | 5
- HMN 100 Humanities Forum | 1 | 0 | 1
- HMN 100 Humanities Forum | 1 | 0 | 1
HORTICULTURE (Contd)

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- Denotes courses in Golf Course Management Option.

**Horticulture Certificate Program**

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**Optional Related Courses:**

- DDT 151 Technical Drawing I Part I
- DDT 152 Technical Drawing I Part II
- MAH 108 Elementary Algebra
- SER 151 Small Engine Basics I
- SER 152 Small Engine Basics II

**ORNAMENTAL HORTICULTURE Course Descriptions**

**OHT 111 Horticulture Soils and Fertilizers, 5 credits.**
The course is designed to study various techniques used in the propagation of plants grown by commercial nurserymen, using seeds, cuttings, and grafts.

**OHT 121 Plant Propagation, 5 credits.**
This course is designed to study various techniques used in the propagation of plants grown by commercial nurserymen, using seeds, cuttings, and grafts.

**OHT 122 Turf Management, 5 credits.**
The study of all major southern lawn grasses and their maintenance. Turf machinery, fertilizers, and uses of lawn grasses are covered to a great extent. Emphasis will also be placed on practical lab skills as demonstrated in class.

**OHT 123 Turf Machinery and Maintenance, 2 credits.**
A detailed look at machinery used on a golf course, including greens mowers, cultivation equipment and small power equipment. Maintenance and cost effectiveness is thoroughly explained.

**OHT 124 Landscaping Plants in Design, 5 credits.**
A thorough study of the most commonly used plant materials and where they can be implanted in a modern landscape design.

**OHT 131 Ornamental and Turf Pest Control, 5 credits.**
The study of the different insect, disease, and weed pests of ornamental plants. Emphasis is placed on identification and control through lecture and practical demonstration.

**OHT 133 Golf Course Soils and Fertilizers, 3 credits.**
An in-depth look at soils, native and man-made, their care and amendment with commercial fertilizers.

**OHT 134 Golf Course Turf Management, 3 credits.**
This course emphasizes turf management on tees, greens and fairways. Special attention is placed on variety selection, seasonal considerations and renovation.

**OHT 141 Landscape Design, 5 credits.**
A course designed to provide the student with the technical information necessary to obtain and hold a job related to landscape design. Emphasis is placed on modern landscape design for residential and commercial landscapes.

**OHT 142 Nursery Management, 5 credits.**
A course designed to provide the student with the technical information needed to obtain and hold employment in the nursery production industry.

**OHT 143 Landscape Design & Drawing, 1 credit.**
Students will be trained in the practical use of drafting equipment, layout of drawings and the basics of landscape design theory.

**OHT 144 Bidding and Estimating, 1 credit.**
A practical course that introduces and improves a student's ability to bid and estimate horticultural work. Emphasis is placed on actual jobs and group estimation.

**OHT 145 Golf Course Pest Control, 3 credits.**
This course covers the common insects, disease and weed pests found on a golf course, their prevention and control. Emphasis is placed on application and environmental safety.

**OHT 146 Construction of Turf Areas, 3 credits.**
This course covers the planning and construction of tees and greens following acceptable industry standards.
OHT 211 GREENHOUSE PRODUCTION, 5 CREDITS.
A course designed to increase the student's abilities to work in or manage a commercial greenhouse.

OHT 212 LANDSCAPE MAINTENANCE, 5 CREDITS.
A course designed to improve student knowledge of landscape maintenance concepts and thereby increase the student's abilities as a groundskeeper.

OHT 213 IRRIGATION DESIGN AND MAINTENANCE, 3 CREDITS.
Proper golf course irrigation, design, and the maintenance or improvement of systems are covered.

OHT 214 GOLF COURSE DESIGN, 3 CREDITS.
The basic concepts of land planning and design of a golf course are the major topics of this course. Lectures will be supplemented by talks by members of the industry.

OHT 215 GOLF COURSE OPERATIONS, 6 CREDITS.
The concepts of budgeting, scheduling, inventory, etc. will be covered to improve the students working knowledge of the business management of a golf course. Field trips to various golf courses throughout the Southeast will be conducted to improve the student's understanding of the scope of the industry and expose them to new ideas.

OHT 221 ADVANCED STUDIES, 5 CREDITS.
Individual study in an area of interest to the student and approved by the instructor.

OHT 222 CURRENT TOPICS IN HORTICULTURE, 2 CREDITS.
Survey of current trends in the horticulture industry through the use of slides, videos, and trade journals. Students will prepare presentations on several topics for class.

OHT 251 SUPERVISED PRACTICAL EXPERIENCES, 5 CREDITS.
Practical application of theory learned in the classroom through laboratory assignments scheduled according to seasonal growing conditions.

INDUSTRIAL ELECTRONICS (ILT)

Bessemer State Technical College offers an Associate Degree program for the student preparing for a career as an electronics technician. The curriculum is designed to provide specific training in basic electronic theory, electrical and electronic circuits, instrumentation and test equipment, transformers, direct and alternating current machinery, SCR controls, programmable logic controls, electronic communications, digital electronics, microprocessor basics and applications, and servicing microcomputers.

In addition to the Associate Degree, the college offers certificate programs in Electronics, Industrial Maintenance, and Industrial Hydraulics.

Students usually complete the Associate program in seven quarters.

INDUSTRIAL ELECTRONICS
Associate in Applied Technology

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Required General Education Courses:

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TOTAL CREDIT HOURS 110

HUMANITIES (HMN)

HMN 100 HUMANITIES FORUM, 1 CREDIT.
In this course, credit is given for participation in lectures, concerts, and other events which have relevance to the study of the humanities. The course may be repeated for credit each quarter that the student is enrolled in college.
ILT 111 DC Fundamentals, 6 credits.
The study of electrical machinery and controls with emphasis on types of
single-phase and three-phase motors and their operating characteristics;
calculations for motor protection, installations and branch circuit wire
sizing, fuse or circuit breaker size; three-phase transformers installation,
connections, and protection; control circuit transformer wiring and protec-
tion; with laboratory emphasis on wiring of motor control circuits.
PREREQUISITES: ILT 111 and ILT 121

ILT 212 Microprocessor Basics, 6 credits.
This course is designed to provide the student with the knowledge
necessary to understand the basic concepts of a microprocessor-based
computer system. The student will also be provided the knowledge
necessary to write, execute, and debug machine language programs for
a given microprocessor. Rather than dealing with abstract generalities,
the 6800 Microprocessor was chosen to provide the student with a
concrete, working example. After mastering the initial concept of any
specific microprocessor, the student should be able to make an easy
transition to other microprocessors. PREREQUISITES: ILT 111 and ILT
121 COREQUISITES: ILT 231

ILT 221 Programmable Controllers, 6 credits.
This course is designed to provide (1) the technical knowledge necessary
to understand how a programmable controller (PC) managed system
works and how the programmable controller fits into an industrial
operation; (2) an opportunity to practice the skills necessary to replace
electro-mechanical relays, counters, timers and analog devices with more
reliable solid-state circuitry (programmable controllers); (3) an opportu-
nity to practice the skills necessary to troubleshoot and analyze practical
programmable controller managed systems; (4) the necessary skills to
perform maintenance on programmable controllers in an industrial envi-
nronment.

ILT 223 Microprocessor Interface, 6 credits.
A study of microprocessor pin out and timing, memory devices (volatile
and nonvolatile), address decoders, input/output devices, special purpose
support devices, D-to-A and A-to-D converters; parallel and serial data
transfer, microcomputer troubleshooting and repair techniques. PRE-REQUISITES: ILT 111, ILT 121, ILT 131, ILT 212 and ILT 231

ILT 231 Digital Techniques, 6 credits.
This course is designed to provide (1) the technical knowledge necessary
to understand what digital techniques are, how they are used, and why
they are used in modern equipment; (2) the opportunity to practice the
skills necessary to troubleshoot and analyze practical electronic digital
equipment; (3) a solid understanding of digital methods, a guide to their
application, and a foundation for later courses in microprocessors; and (4)
the necessary knowledge to qualify for an entry-level position in industry.
PREREQUISITES: ILT 111, ILT 121 and ILT 131

ILT 232 Microcomputer Systems Fundamentals, 6 credits.
A fundamental study in the areas of: DOS (Disk Operating System),
diagnostic software, computer languages, computer installation, com-
puter upgrade, serial and parallel communication, and general overall use
of a microcomputer. Lab experiments will be used to supplement
classroom instruction. PREREQUISITES: ILT 111, ILT 121, ILT 131, ILT
212 and ILT 231. COREQUISITES: ILT 223
ILT 241 MICROCOMPUTER UNIT AND PERIPHERAL REPAIR, 6 CREDITS.
A study of the important areas needed to understand microcomputer repair. Emphasis is on diagnostic software, timing and control signals, block diagrams, interpretation of computer schematics, component replacement, and computer troubleshooting to the component level. Lab experiments will be used to supplement classroom instruction. PREREQUISITES: ILT 111, ILT 121, ILT 131, ILT 212, ILT 223, ILT 231 and ILT 232.

INDUSTRIAL HYDRAULICS AND MAINTENANCE (INT)

INDUSTRIAL HYDRAULICS
Certificate Program

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Required General Education Courses:

VTE 101 Vo-Tech Communication Skills I 5 0 5
VTM 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 26

Optional Related Courses:

ILT 111 DC Fundamentals 4 6 6
ILT 121 AC Fundamentals 4 6 6

INDUSTRIAL MAINTENANCE
Certificate Program

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Required General Education Courses:

COM 101 English Composition I 5 0 5
MAH 108 Elementary Algebra 5 0 5
VTE 101 Vo-Tech Mathematics I 5 0 5

TOTAL CREDIT HOURS 64

Optional Related Courses:

BLM 162 Commercial Wiring
BLM 163 Industrial Wiring

INDUSTRIAL HYDRAULICS
AND MAINTENANCE (INT)
Course Descriptions

INT 161 Basic Hydraulics, 4 CREDITS.
Covers the properties of fluids, basic physics review of force and motion. Calculations of volume, area and displacement. Covers components for power transfer, arrangements for controlling flow and power, methods of joining pipe, tubing and special conduits, and special application concepts of hydraulics and pneumatics.

INT 162 Advanced Hydraulics, 4 CREDITS.
Covers the evaluation, efficiency, and economy of hydraulic systems, study of hydraulic fluid composition, filters, pump sizing, compatibility, installation and alignment, valve selection, heat exchangers, various type pumps, and accumulators. Review of the IIC symbols and standard formulas used in industrial fluid power.

INT 163 Proportional Controls, 4 CREDITS.
This course covers the selection, application, and troubleshooting of proportional directional and pressure control valves and the circuitry involved in the hydraulic system.

INT 164 Proportional Circuits, 4 CREDITS.
This course covers the circuit analysis of resistive and overrunning load control circuits, and metering circuits. Analyze the parameters for proportional hydraulics and the design of proportional hydraulic systems.

INT 251 Basic Mechanics, 5 CREDITS.
An introductory course for millwrights and mechanics. Includes selection, safe use and care of hand and power tools; fasteners; precision measuring instruments; lubrication principles and methods; types and uses of fluids.

INT 252 Mechanical Power Transmission, 5 CREDITS.
Principles and applications of belt drives; pulleys, flat belts and drive arrangements; gears; chain drive installation, maintenance and replacement.

INT 253 Industrial Mechanics, 5 CREDITS.
Covers bench work, machinery installation and pipefitting. Includes rigging, abrasives, heat treatment of seals, piping strains and alignment, and analysis of vibration with moving machinery.

For More Information Call
428-6391
In-State
1-800-235-5368
The School of Practical Nursing at Bessemer State Technical College offers a basic program of education which prepares the graduates to function effectively as licensed practical nurses. Students graduating from the program receive a diploma.

Emphasis is placed on the practical application of knowledge gained through lectures, demonstrations, and laboratory experiences. Students receive clinical experience under the supervision of qualified instructors at modern medical facilities throughout Jefferson County.

The Nursing Department is approved by the State Department of Education and the Alabama Board of Nursing. Graduates of the program are eligible to write the Examination of Licensure, State of Alabama.

The program can be completed in one year by attending full-time during the day, or by one and one-half years at night.

### LICENSED PRACTICAL NURSING (LPN)

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<td>Maternal/Newborn/Child Nursing</td>
<td>8</td>
<td>0</td>
<td>8</td>
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<tr>
<td>LPN 143</td>
<td>Computer Literacy for Nurses</td>
<td>1</td>
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<tr>
<td>LPN 144</td>
<td>Nursing IV (Medical/Surgical)</td>
<td>8</td>
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<tr>
<td>LPN 152</td>
<td>Nursing I Lab (Fundamentals)</td>
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<tr>
<td>LPN 172</td>
<td>Nursing II Clinical Lab (Adult/Child)</td>
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<td>LPN 173</td>
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<tr>
<td>LPN 175</td>
<td>Nursing III Clinical Lab (Adult/Child)</td>
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<tr>
<td>LPN 187</td>
<td>Nursing IV Clinical Lab (Adult/Child)</td>
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</tbody>
</table>

**Required General Education Courses:**
- ORN 100 Orientation to College 1 0 1
- VTE 101 Vo-Tech Communication Skills I 5 0 5
- VTM 101 Vo-Tech Mathematics I 5 0 5

**TOTAL CREDIT HOURS 79**

### LICENSED PRACTICAL NURSING (LPN)

**Course Descriptions**

**LPN 112 NURSING I (FUNDAMENTALS OF NURSING), 5 CREDITS.**

Adult Health Nursing I is designed to assist the student in developing knowledge, skills and attitudes required for safe and effective performance of basic nursing skills. Course content emphasizes the nursing process in teaching holistic nursing care and integrates medical terminology, personal and vocational relationships and technological concepts.

**PREREQUISITES:** Admission to the LPN program.

**LPN 114 ANATOMY AND PHYSIOLOGY, 5 CREDITS.**

This course is designed to provide the student with basic knowledge of the organization and function of the human body systems and serves as a basis for subsequent nursing courses. Medical terminology related to the subject is integrated throughout the course.

**PREREQUISITES:** Admission to the LPN program or consent of the instructor.

**LPN 121 NURSING II (MEDICAL/SURGICAL NURSING), 8 CREDITS.**

This course is designed to assist the student in the development of knowledge, skills and attitudes based on nursing processes necessary for care of patients throughout the life cycle. Course content includes signs and symptoms of disease/disorders, principles of growth and development, mental health concepts, preoperative and postoperative care, infection control, diseases and disorders of the urinary system and diet and medication therapy related to specific conditions. The class laboratory experience is designed to provide opportunity for practical application of knowledge related to sterile dressings, catheterization and isolation practice.

**PREREQUISITES:** LPN 112, LPN 114, Current certification in CPR for health care providers. Current completed medical and dental examination forms of the Health Program of Bessemer State Technical College.

**LPN 122 BASIC NUTRITION, 3 CREDITS.**

This course is designed to provide basic knowledge of nutrition in the promotion of health. It provides the foundation for diet therapy incorporated with disease processes studied in subsequent LPN courses.

**PREREQUISITES:** Admission to the LPN program or consent of the instructor.
LPN 123 BASIC PHARMACOLOGY, 4 CREDITS.
This course is designed to assist the student to develop knowledge, skills and attitudes necessary to calculate and administer medications safely and accurately. Course content includes principles of medication administration, dosage calculations, classification of medications, intravenous therapy, fluid and electrolyte balance, and substance abuse. Venipuncture and medication therapy related to specific disease processes is included in subsequent nursing courses. PREREQUISITES: LPN 112, LPN 114, SSS 090 and/or VTM 101.

LPN 131 NURSING III (MEDICAL/SURGICAL NURSING), 8 CREDITS.
This course is designed to assist the student in the continued development of knowledge, skills and attitudes required for safe and effective delivery of patient care with emphasis on the nursing process. Diseases and disorders of the endocrine, reproductive, cardiovascular, respiratory, musculoskeletal systems and blood dyscrasias are studied. Therapeutic diets and pharmacology related to the identified systems are integrated in the course content. Technical skills related to tracheostomy care, suctioning and blood glucose monitoring are taught in a noncredit lab. PREREQUISITES: LPN 121, LPN 122, LPN 123.

LPN 134 MATERNAL/NEWBORN/CHILD NURSING, 8 CREDITS.
This course is designed to assist the student in development of safe and effective maternal and newborn pediatric nursing skills. The student applies previously acquired knowledge, skills and attitudes while developing new and more advanced nursing skills. Course content includes principles of maternal care from conception through the postpartum period, patterns of normal growth and development, diseases/disorders specific in children from infancy through adolescence, diet therapy, medications and immunizations. PREREQUISITES: LPN 121, LPN 122, LPN 123.

LPN 143 COMPUTER LITERACY FOR NURSES, 1 CREDIT.
Course designed to introduce students to the ways in which computers are used in the health care field and to allow students to develop beginning skills in computer applications such as "booting" up the computer, loading software, interacting with specific software, saving or storing information, and entering data into the computer. PREREQUISITES: Admission to the LPN program and/or consent of the instructor.

LPN 144 NURSING IV (MEDICAL/SURGICAL NURSING), 8 CREDITS.
The course is designed to further develop knowledge, skills and attitudes obtained in previous nursing courses. Upon completion of this course the student will be able to function safely and effectively within the legal scope of practice as an entry level practical nurse. Course content includes diseases/disorders of the gastrointestinal, neurological and sensory systems; cancer, geriatrics, home health, community health, death and dying, career planning, legal considerations and preparation for licensing examinations. The technical skills of venipuncture and nasogastric intubation are taught in a noncredit laboratory. PREREQUISITES: LPN 121, LPN 122, LPN 123, LPN 131, LPN 134.

LPN 152 NURSING I (FUNDAMENTALS) LAB, 2 CREDITS.
Classroom laboratory experiences are designed to provide practice in the application of technical skills related to body mechanics, medical asepsis, safety, assessment, vital signs, hygiene, elimination, admission/discharge and documentation. COREQUISITE: LPN 112.

LPN 161 NURSING II (ADULT/CHILD) CLINICAL LAB, 5 CREDITS.
This clinical laboratory experience is designed to provide opportunity for application of knowledge and skills related to care of the adult/child with medical/surgical conditions including medication administration, development of nursing care plans and documentation. COREQUISITE: LPN 121.

LPN 171 NURSING III (ADULT/CHILD) CLINICAL LAB, 5 CREDITS.
The continued application of theory and skills learned in caring for adult/child patients with medical/surgical conditions. Students have learning experiences in administration of medications which includes knowledge of the classification, average dosage, route of administration and nursing implications of drugs. Nursing care plans are an integral part of the clinical laboratory as well as documentation. PREREQUISITE: LPN 161. COREQUISITE: LPN 131.

LPN 172 NURSING II (ADULT/CHILD) CLINICAL LAB - PART I, 4 CREDITS.

LPN 173 NURSING II (ADULT/CHILD) CLINICAL LAB - PART II, 4 CREDITS.
These two courses, combined, are equivalent to LPN 161, Nursing II (Adult/Child) Clinical Lab. These clinical laboratory experiences are designed to provide opportunity for application of knowledge and skills related to care of the adult/child with medical/surgical conditions including medication administration, development of nursing care plans and documentation. COREQUISITE: LPN 121.

LPN 175 NURSING III (ADULT/CHILD) CLINICAL LAB, 4 CREDITS.
The continued application of theory and skills learned in caring for adult/child patients with medical/surgical conditions. Students have learning experiences in administration of medications which includes knowledge of the classification, average dosage, route of administration and nursing implications of drugs. Nursing care plans are an integral part of the clinical laboratory as well as documentation. PREREQUISITE: LPN 121, LPN 172, LPN 173. COREQUISITE: LPN 131.

LPN 184 NURSING IV (ADULT/CHILD) LAB, 5 CREDITS.
Clinical experiences are designed to expand application of knowledge and skills obtained in caring for adult/child patients with medical/surgical conditions. Learning experiences continue to include the administration of medications, nursing care planning and documentation. Also included in this course are observation visits in the home, community agencies, and of the practical nurse in the role of supervisor of care in extended care facilities. PREREQUISITES: LPN 161, LPN 163, LPN 171, LPN 174. COREQUISITE: LPN 144.

LPN 187 NURSING IV (ADULT/CHILD) CLINICAL LAB, 4 CREDITS.
Clinical experiences are designed to expand application of knowledge and skills obtained in caring for adult/child patients with medical/surgical conditions. Learning experiences continue to include the administration of medications, nursing care planning and documentation. Also included in this course are observation visits in the home, community agencies, and of the practical nurse in the role of supervisor of care in extended care facilities. PREREQUISITES: LPN 131, LPN 175. COREQUISITES: LPN 144.
The Machine Tool Technology program provides instruction in the operation of standard metal cutting machine tools and equipment, such as the milling machine, lathe, shaper, drill press, power saw and pedestal, cylindrical and surface grinders. The student learns the theory of operation of these various pieces of equipment and immediately applies what they have learned in shop assignments. These assignments are completed under conditions very similar to on-the-job situations.

To supplement shop experience, the curriculum includes related courses in blueprint reading, applied mathematics and communication skills. Upon completion of the Machine Tool program, the college offers an optional certificate program of computerized numerical control (CNC). Entering the CNC training requires completion of the Machine Tool program or a minimum of four years experience in machine shop work.

COURSE | TITLE | THEORY | LAB | CR.HR.
--- | --- | --- | --- | ---
MTT 151 | Machine Shop Operations I Part I | 2 | 6 | 4
MTT 152 | Machine Shop Operations I Part II | 2 | 6 | 4
MTT 153 | Machine Shop Operations II Part I | 2 | 6 | 4
MTT 154 | Machine Shop Operations II Part II | 2 | 6 | 4
MTT 155 | Applied Machine Shop I Part I | 2 | 6 | 4
MTT 156 | Applied Machine Shop I Part II | 2 | 6 | 4
MTT 157 | Applied Machine Shop II Part I | 2 | 6 | 4
MTT 158 | Applied Machine Shop II Part II | 2 | 6 | 4
DDT 141 | Blueprint Reading I | 2 | 6 | 4

Required General Education Courses:

| COURSE | TITLE | THEORY | LAB | CR.HR. |
--- | --- | --- | --- | ---
COM 101 | English Composition I | 5 | 0 | 5
VTM 101 | Vo-Tech Mathematics I | 5 | 0 | 5

TOTAL CREDIT HOURS 46
MTT 264 COMPUTER AIDED MANUFACTURING, 4 CREDITS.
Programming numerous CNC lathe and mill operations to engineering specifications utilizing the MDSI Computer Assisted Programming Station.

MATHEMATICS (MAH, SSS, VTM)

MAH 060 DEVELOPMENTAL MATHEMATICS, 3 CREDITS.
A non-credit course, this course is designed to upgrade math skills to enable students to enter another field of study.

MAH 091 DEVELOPMENTAL ALGEBRA I, 5 CREDITS.
This developmental course in review of algebra is designed to help the student develop mathematical proficiency necessary for selected curriculum entrance.

MAH 100 COLLEGE MATHEMATICS, 5 CREDITS.
This general education course for non-mathematics and non-science majors includes a basic review of arithmetic and concepts of introductory algebra.

MAH 102 BUSINESS MATHEMATICS, 5 CREDITS.
This general education course includes such topics as fundamentals of arithmetic, fundamentals of algebra, statistical methods, simple and compound interest, credits, trade and bank discounts, annuities, amortization, depreciation, stocks and bonds, and insurance.

MAH 108 ELEMENTARY ALGEBRA, 5 CREDITS.
This course is a review of the fundamental operations in arithmetic and algebra. The topics include the numbers of ordinary arithmetic and their properties; integers and rational numbers; solving equations; polynomials; polynomials and factoring; and an introduction to systems of equations and graphs.

MAH 109 INTERMEDIATE COLLEGE ALGEBRA, 5 CREDITS.
This course is designed to help students develop the basic principles and skills needed to solve algebraic problems. Topics include sets, real numbers, polynomials, exponents, roots, radicals, linear equations and inequalities, quadratic equations, and graphing.

MAH 111 PLANE TRIGONOMETRY, 5 CREDITS.
This course covers properties of trigonometric functions and operations, radian measure, inverse functions, solutions of triangles, and complex numbers.

MAH 151 COLLEGE MATHEMATICS - PART I, 2.5 CREDITS.
This course is the first half of College Mathematics (MAH 100). The course is designed to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

MAH 152 COLLEGE MATHEMATICS - PART II, 2.5 CREDITS.
The second half of MAH 151.

MAH 154 ELEMENTARY ALGEBRA - PART II, 2.5 CREDITS.
The second half of MAH 153.

SSS 080 BASIC MATHEMATICS, 2 CREDITS.
This course prepares eligible students for various major and related courses and everyday situations by developing and strengthening essential mathematical competencies. Diagnostic testing is done to assess specific needs in mathematics. Students are provided with individualized and group instruction which includes whole numbers, fractions, decimals, and measurement and occasionally other basic topics according to the student's needs.

SSS 081 BASIC ALGEBRA, 2 CREDITS.
This course prepares eligible students for various major and related courses by strengthening and developing the concepts and skills of arithmetic and elementary algebra. Students are provided with individualized and group instruction which includes signed numbers, exponents, evaluating literal expressions and solving equations and other basic algebraic topics.

VTM 101 VO-TECH MATHEMATICS I, 5 CREDITS.
The course will focus on application of arithmetical and algebraic principles and computations needed to assure competence in selected occupations.

NURSING ASSISTANT (NAS)

The Nursing Assistant program is designed to fulfill the Omnibus Budget Reconciliation Act (OBRA) federal requirements for training of long-term care nursing assistants in preparation for certification through competency evaluation. The curriculum has been approved by the Alabama Department of Public Health and conforms to the program standards established by the Alabama Department of Postsecondary education.

NURSING ASSISTANT Certificate Program (Evening)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>THEORY</th>
<th>LAB</th>
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<td>NAS 101</td>
<td>Basic Nursing Theory I</td>
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<tr>
<td>NAS 151</td>
<td>Basic Nursing Class Lab I</td>
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<td>EMT 102</td>
<td>CPR and First Aid</td>
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<td>NAS 152</td>
<td>Basic Nursing Clinical Lab I</td>
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Required General Education Courses:

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<tr>
<td>VTE 101</td>
<td>Vo-Tech English I</td>
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<tr>
<td>VTM 101</td>
<td>Vo-Tech Math</td>
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</table>

Total Credit Hours 27

NOTE: After completing the program, the Nursing Assistant student is eligible to take the Certified Nursing Assistant (CNA) written and practical examinations.
NURSING ASSISTANT
Course Descriptions

NAS 101 Basic Nursing Theory I, 7 credits.
This course consists of 70 hours of classroom instruction to include lectures, demonstrations, case studies and role playing activities designed to provide the didactic foundation and fulfill the OBRA federal requirements for training of nursing assistants in preparation for certification through competency evaluation.

NAS 151 Basic Nursing Class Lab I, 3 credits.
This course consists of 80 hours of laboratory practice during which the student practices the basic skills and techniques learned in Basic Nursing Theory I (NAS 101) under direct supervision of the instructor.

NAS 152 Basic Nursing Clinical Lab I, 5 credits.
This course consists of 150 hours of clinical experience during which the competencies learned during the theory phase - NAS 101: Basic Nursing Theory I and the practice phase - NAS 151: Basic Nursing Class Lab I are applied in a hospital and/or long-term care facility under the direct supervision of a qualified instructor.

OFFICE ADMINISTRATION (SET)

The Office Administration program prepares the student for as many as fourteen different occupations as defined in the Dictionary of Occupational Titles.

A highlight of the program is the individualized offerings. A student can choose the program option that best suits their needs — Associate Degree or Certificate — and then choose electives to customize their selection.

A faculty advisor assists the student from enrollment to graduation. Another unique characteristic of the Office Administration program is the ability of the student to "challenge" basic courses and receive advanced credit when prior education (perhaps in a high school program) or experience is documented.

All students are trained in the basic secretarial skills of typing, filing, telephone operations, 10-key, shorthand, and employment preparation. Office Administration students also receive hands-on experience in today's electronic office, including word processing, or desk-top publishing. It is also possible to combine majors with other business areas such as Retail Marketing, Accounting, or Data Processing.

Students are encouraged to join and participate in the on-campus professional organizations; Collegiate Secretaries International, and Phi Beta Lambda. Both organizations host events each quarter which promote student leadership and growth. Graduates of the Office Administration Associate Degree program are eligible to sit for the Certified Professional Secretaries (CPS) Exam, the hallmark of success in this profession.

The Associates Degree program takes six quarters and the Certificate program, which can be completed in day or evening classes, takes approximately three quarters.
OFFICE ADMINISTRATION ELECTIVES

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<th>COURSE</th>
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<tr>
<td>SET 113</td>
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<tr>
<td>SET 121</td>
<td>Shorthand Dictation/Transcription</td>
<td>4</td>
<td>2</td>
<td>5</td>
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<tr>
<td>SET 125</td>
<td>Word Processing - DW4</td>
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<td>SET 126</td>
<td>Word Processing</td>
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<td>SET 133</td>
<td>Intensive Typing</td>
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<td>SET 134</td>
<td>Oral/Telephone Communications</td>
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<tr>
<td>SET 136</td>
<td>Desktop Publishing I</td>
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<tr>
<td>SET 137</td>
<td>Desktop Publishing II</td>
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<td>SET 147</td>
<td>Word Processing - WordPerfect</td>
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<tr>
<td>SET 148</td>
<td>Medical Office Procedures</td>
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RECOMMENDED NON-OFFICE ADMINISTRATIVE ELECTIVES

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<td>REM 111</td>
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<td>REM 121</td>
<td>Applied Advertising</td>
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<td>REM 122</td>
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<tr>
<td>REM 224</td>
<td>Entrepreneurship</td>
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* Other courses as approved by Department Advisor.

OFFICE ADMINISTRATION

Course Descriptions

SET 109 BASIC TYPING, 5 CREDITS.
This course is designed for students who just want to learn to type and are not Office Administration majors. Students learn the proper alphabetic and numeric reaches of the keyboard by touch. Technique and accuracy are stressed, with speed development emphasized after the keyboard has been mastered. A level of 25 wpm typing speed should be attained. Basic business letter format is taught and applied at the end of the course.

SET 111 ALPHA-SHORTHAND I, 5 CREDITS.
This is an introductory course in a form of shorthand that will enable students to take notes quickly and accurately whether for business or personal use. Students read and transcribe their notes. This course also develops and improves the student’s vocabulary, spelling, punctuation, grammar, and proofreading skills. SET 112 Beginning Typing, 5 credits. This course is designed for students who have never typed before. Using the touch method, students learn the proper alphabetic and numeric reaches of the keyboard. Technique and accuracy are stressed, with speed development emphasized after the keyboard has been mastered. A 35 wpm level is expected upon completion of the course.

SET 112 BEGINNING TYPING, 5 CREDITS.
This course is designed for students who have never typed before. Using the touch method, students learn the proper alphabetic and numeric reaches of the keyboard. Technique and accuracy are stressed, with speed development emphasized after the keyboard has been mastered. A 35 wpm level is expected upon completion of the course.

SET 113 RECORDS AND DATABASE MANAGEMENT, 5 CREDITS.
Upon successful completion of SET 114 (or its equivalent), students begin advanced instruction in records management systems. By researching and examining various records systems, students learn how to design and equip a business office with a records system that most efficiently meets their needs. They also learn how to manage the clerical staff necessary to handle the system. Job opportunities and career paths in records management are also covered.

SET 114 FILING AND DATABASE MANAGEMENT, 5 CREDITS.
The most recent filing rules and procedures adopted by the Association of Records Managers and Administrators (ARMA) are taught. Students learn to index, code, sort, and file alphabetically, geographically, numerically, and by subject. Magnetic storage media, micrographics media, and databases are an integral portion of this course in addition to the traditional filing systems.

SET 115 WORD PROCESSING—MACHINE TRANSCRIPTION, 5 CREDITS.
Students apply a prerequisite typing speed of 40 wpm to transcribing business documents. Daily practice in utilizing machine transcribers with headsets and foot pedals, is stressed along with the swift, efficient production of various business letters. The students learn the basics of word processing so the transcription can be done on computer. Of all skills in today’s office, machine transcription is growing in popularity due to the time saved on the part of the executive and the secretary. A typing speed of 40 words per minute is recommended. PREREQUISITES: SET 122 and successful completion of COM 091 or COM 101, and SET 147 or SET 160.

SET 121 ALPHA-HAND DICTATION/TRANSCRIPTION, 5 CREDITS.
This course is designed for students who have successfully completed SET 112, and who wish to build their speed and skill in note taking. Students will develop a broader shorthand vocabulary, develop speed in taking dictation and transcribing accurately, and will develop competence in office-style dictation with emphasis on mailability. The completion of this course will prepare students for those jobs which require shorthand ability. PREREQUISITES: SET 111 and SET 112 or typing speed of 30 wpm.

SET 122 INTERMEDIATE TYPING, 5 CREDITS.
With a prerequisite of SET 112 or experience in touch-typing the keyboard, students are given instruction in electronic typewriter or computer operations and maintenance. Business document theory is presented so that students are able to produce mailable documents including reports, tables, letters, memos, and forms in both straight-copy and/or edited rough-draft copy. A speed of 55 wpm is expected upon completion. PREREQUISITE: SET 112

SET 123 SECRETARIAL ACCOUNTING, 5 CREDITS.
This course provides students with the basic accounting knowledge necessary to keep the financial records for a general office. In addition to theory, students acquire experience in writing checks, maintaining checking account records, preparing a balance sheet, journalizing transactions, posting to ledgers, completing worksheets, preparing trial balances, making adjusting entries, preparing an income statement and basic payroll accounting. A prerequisite of business mathematics is advised. PREREQUISITE: MAH 100

SET 124 OFFICE MACHINES, 5 CREDITS.
The 10-key calculator is such an integral part of today’s office that the ability to operate one is tantamount. Students are taught the most efficient method of operations—the 10-key by Touch. Once mastered with a KPM of 140, students progress through a number of business applica-
tions including payroll records, bank reconciliation, inventory control, income statements, invoices, and sales discount records. Basic machine maintenance is also learned and practiced on a daily basis.

SET 125 WORD PROCESSING—DW4, 5 CREDITS.
A prerequisite of 40 wpm typing allows students to progress through this popular word processing software package. The basics of computer operations for both a hard-drive and floppy-disk system are taught before any word or data processing is presented. Students produce mailable documents using the DW4 software, including both low and high-level functions such as merge and document assembly. PREREQUISITES: SET 122 or typing speed of 40 wpm and knowledge of typing formats.

SET 126 WORD PROCESSING, 5 CREDITS.
A prerequisite of 40 wpm typing allows students to progress through the latest word processing software packages. The basics of computer operations for both a hard-drive and floppy-disk system are taught before any word or data processing is presented. Students produce mailable documents using the software, including both low and high-level functions such as merge and document assembly. PREREQUISITES: SET 122 or typing speed of 40 wpm.

SET 127 SPECIAL TOPICS IN OFFICE ADMINISTRATION, 3 CREDITS.
This course is designed to develop written communication skills among Office Administration majors. Weaknesses in various special areas are identified among students, and instruction is tailored to meet their individual needs. Areas covered include grammar, punctuation, capitalization, number and abbreviation styles, proofreading, editing, study and test-taking skills, and other topics as determined by the instructors.

SET 132 ADVANCED TYPING, 5 CREDITS.
With a prerequisite of both touch-typing techniques and format theory, students are given the opportunity to build speed, accuracy, and format knowledge in this course. Emphasis is placed on the application of theoretical knowledge to produce mailable documents in actual business situations. A speed of 65 wpm is expected upon completion. PREREQUISITES: SET 122 or typing speed of 45 wpm, and SET 147.

SET 133 INTENSIVE TYPING, 5 CREDITS.
Using the Championship Typing Techniques of World Champion, Cortez Peters, Jr., each student's individual typing ability is scientifically analyzed, and an individualized typing program is prescribed to build speed and reduce errors. Students must have mastered the touch-technique on the basic keyboard prior to entering this course; this course can be repeated as many times as necessary to achieve a typing speed increase and a reduction of errors to five or less on any five-minute timing. PREREQUISITES: SET 109 or SET 112 or ability to touch type.

SET 134 ORAL/TELEPHONE COMMUNICATIONS, 5 CREDITS.
This course gives hands-on experience to each student using one of the most advanced telephone training systems available—Eduphone. Students learn not only how to answer business calls, but also how to transfer calls, place calls, take messages, use directories, set up teleconferences, use cellular phones, handle electronic and voice mail. Students are also given extensive instruction in improving their speaking voice and developing a pleasant, professional enunciation. Extensive work is done on improving articulation, a business vocabulary, and correct pronunciation of words. Manners and courtesy are stressed throughout.

SET 136 DESKTOP PUBLISHING I, 5 CREDITS.
Desktop publishing is the latest skill required by today's electronic office. The software is a combination of a word processing, printing, graphics, and typesetting program. This course is for both office administration and non-office administration (Commercial Art and Graphic Printing and Communications) majors. The only prerequisite is familiarization with the keyboard (by touch); a speed of 40 wpm is recommended. Students get hands-on experience operating the equipment and software to produce various desktop publishing documents including letterheads, newsletters, and forms. PREREQUISITE: Ability to touch type; 40 wpm recommended.

SET 137 DESKTOP PUBLISHING II, 5 CREDITS.
This course is designed to prepare teachers, supervisors, executives and others to quickly develop professional presentation documents. Students (1) utilize prepared graphic packages to design flyers, brochures, overhead transparencies, and projector slides; (2) employ the mouse with freehand drawing techniques to design graphics and other figures; and (3) create bar graphs, line graphs, and other charts used to present numerical data. PREREQUISITE: Ability to touch type 40 wpm recommended.

SET 143 BUSINESS COMMUNICATIONS, 5 CREDITS.
With a prerequisite of COM 091, Basic Writing and COM 101, English Composition I, students are well equipped to apply their grammar and punctuation knowledge to the composition of actual business documents. Students are given instruction and then case studies in which they produce mailable goodwill, positive response, request, negative response, collection, sales, and job application letters. PREREQUISITES: Successful completion of COM 091, Basic Writing and COM 101, English Composition I.

SET 144 ELECTRONIC OFFICE SIMULATION, 5 CREDITS.
This course is designed to give students the latest in today's modern, electronic office...operations of various computer and word processing hardware systems, production of mailable documents using basic generic word processing software, utilizing spreadsheet capabilities, managing database information systems, producing desk-top publishing documents by mixing text and graphics capabilities, processing electronic mail, and utilizing electronic filing systems. Emphasis is placed on administrative office procedures. PREREQUISITE: Typing speed of 40 wpm.

SET 145 EMPLOYMENT PREPARATION, 5 CREDITS.
Students are given instruction in acceptable grooming habits and dress for a professional office career. In addition to addressing the "outside" person, students take part in daily discussion on such "work ethic" topics as getting along in the office, resolving conflicts, success skills, women in the work force, ethics, visibility, and job growth. Students gain experience on various government merit and business/industry applicant exams. By the end of the course, students will have prepared a job-ready resume', application letter, follow-up letter, and will have participated in several mock interviews.

SET 147 WORD PROCESSING—WORDPERFECT, 5 CREDITS.
A prerequisite of 40 wpm typing speed allows students to progress through this most popular word processing package—Word Perfect (latest version). The basics of computer operations for a hard-drive system are taught before any word or data processing is presented. Students produce mailable documents using the Word Perfect software, including both low and high-level functions such as merge and desktop basics. PREREQUISITES: SET 122 or typing speed of 40 wpm and knowledge of typing formats.

SET 148 MEDICAL OFFICE PROCEDURES, 5 CREDITS.
This course is designed for students who are considering a career as a medical secretary. A prerequisite of 40 wpm typing is required; shorthand is...
skill is recommended. In addition to specific medical terminology being taught, students learn the office procedures peculiar to a medical office—scheduling appointments, greeting patients, labeling and filing medical records, handling the telephone, preparing medical records, completing various insurance forms, maintaining financial records, billing patients, and composing letters to medical clients. PREREQUISITES: SET 122 typing speed of 40 wpm.

SET 160 BASIC WORD PROCESSING, 5 CREDITS.
This course is designed for those who want to utilize the program of WordPerfect 5.1 for personal use. It is NOT for Office Administration majors (it does not count toward an OA degree or certificate) but rather, it is for non-secretarial majors. The purpose of the course is to enable the student to operate and maintain an IBM PC or XT compatible computer and diskettes, and to produce various mailable business documents using the software program of WordPerfect 5.1. The theory behind word processing is also taught. Although this course is essentially the same course as SET 147 (Word Processing—Word Perfect), it is graded by a less stringent scale.

PSYCHOLOGY (PSH)

PSH 251 BUSINESS AND INDUSTRIAL PSYCHOLOGY - PART I, 2.5 CREDITS.
This course is the first half of Business and Industrial Psychology (PSH 270). The course is divided to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

PSH 252 BUSINESS AND INDUSTRIAL PSYCHOLOGY - PART II, 2.5 CREDITS.
The second half of PSH 251.

PSH 270 BUSINESS AND INDUSTRIAL PSYCHOLOGY, 5 CREDITS.
This course is a study of interpersonal relations in the working environment, interpersonal communications, and techniques for selection and supervision of personnel.

PHYSICS (PHC)

PHC 120 INTRODUCTION TO PHYSICS, 5 CREDITS.
This course provides an introduction to general physics for non-science majors. Topics in fundamentals of mechanics, properties of matter, heat and temperature, electricity and magnetism, optics and modern physics. Laboratory is required.

PHC 151 INTRODUCTION TO PHYSICS - PART I, 2.5 CREDITS.
This course is the first half of Introduction to Physics (PHC 120). The course is divided to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

PHC 152 INTRODUCTION TO PHYSICS - PART II, 2.5 CREDITS.
The second half of PHC 151.

PHC 203 GENERAL PHYSICS I, 5 CREDITS.
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, sound, heat, electricity and magnetism, light, and modern physics. Laboratory is required.

RETAIL MERCHANDISING (REM)

The Retail Merchandising program provides educational experiences for students whose career objectives are in the marketing, sales, and sales related areas. Effective selling, advertising as it relates to retailing, buying merchandise for resale, consumer and commercial credit management, and organizational and supervisory management are emphasized. The organizational structures of the sole proprietor business to the mass merchandisers are incorporated into the instruction to illustrate the varied business operations. Each major subject is complemented with a laboratory experience enabling the student to gain the practical application of theory learned in the classroom lectures.

Students usually complete the Associate Degree requirements in six quarters.

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<td>REM 223</td>
<td>The Retail Consumer</td>
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<tr>
<td>REM 224</td>
<td>Entrepreneurship</td>
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</tbody>
</table>

This course is designed to provide a basic knowledge of the field of advertising as it applies to business today. The course also acquaints the student with the terminology, techniques, and tools used in advertising both from an advertiser's to the media's viewpoint and allows the student to look at advertising from the retailer's standpoint of how to capture the most return from the advertising dollars spent.

RETAIL MERCHANDISING

<table>
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<td>REM 142</td>
<td>Retail Organization</td>
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Required General Education Courses:

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TOTAL CREDIT HOURS 114

RETAIL MERCHANDISING

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</tbody>
</table>

This course is designed to present an overview of the retail environment as it functions today; to acquaint the student with the terminology and procedures used in retailing; and to provide knowledge of the strategy and techniques used to achieve their profit goals.

RETAIL MERCHANDISING

<table>
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<tr>
<th>COURSE</th>
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This course is designed to provide an overview of the retail environment as it functions today; to acquaint the student with the terminology and procedures used in retailing; and to provide knowledge of the strategy and techniques used to achieve their profit goals.

RETAIL MERCHANDISING Certificate Program

<table>
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<tr>
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Required General Education Courses:

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<td>ORN 100</td>
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<tr>
<td>COM 101</td>
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<td>MAH 102</td>
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TOTAL CREDIT HOURS 41

RETAIL MERCHANDISING

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<td>REM 111</td>
<td>Introduction to Retailing</td>
<td>5</td>
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</tbody>
</table>

This course is designed to present an overview of the retail environment as it functions today; to acquaint the student with the terminology and procedures used in retailing; and to provide knowledge of the strategy and techniques used to achieve their profit goals.
REM 221 HUMAN RESOURCE MANAGEMENT, 5 CREDITS.
This course is designed to prepare the student to enter retail management
and to have a better understanding of the art of dealing with people to
accomplish desired objectives. The course emphasizes the importance of
the communications process to efficient and productive management and
acquaints the student with the human relations approach to management
of the role it plays in effective management.

REM 222 APPLIED ECONOMICS, 5 CREDITS.
This course is designed to provide the student with a better understanding
of our economic system and how it applies to them. The course also
enables the student to make better decisions in the retail environment
armed with a keener knowledge of what motivates consumers in our
economy.

REM 223 THE RETAIL CONSUMER, 5 CREDITS.
This course is designed to prepare the student to enter the work force and
better manage their personal finances and assets. It also enables the
student to make wiser decisions and to be an alert and informed consumer.

REM 224 ENTREPRENEURSHIP, 5 CREDITS.
A course designed to provide the student with a knowledge of the basic
principles, guidelines, practices, procedures and methods used in operat­ing
a small business and to acquaint the student with proven techniques
used by successful small business owners today.

SMALL ENGINE REPAIR (SER)
The Small Engine Repair program is designed to develop competent
service technicians. Students learn to diagnose, repair, disassemble, and
test power equipment. Instruction also includes operating principles of
two and four cycle gasoline engines.

Students usually complete the day program in three quarters.

SMALL ENGINE REPAIR
Certificate Program


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<tr>
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<td>SER 121</td>
<td>Engine Service and Electrical Systems</td>
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<td>SER 131</td>
<td>Outdoor Power Equipment</td>
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<td>Required General Education Courses:</td>
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<td>TOTAL CREDIT HOURS</td>
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SMALL ENGINE REPAIR
Course Descriptions

SER 111 SMALL ENGINE BASICS, 8 CREDITS.
This course consists of four instructional units designed to provide the
student with an introduction to engine identification and inspection procedures, basic engine principles and design, and the principles of
operation for four-stroke and two-stroke engines. SER 121 Engine
Service and Electrical Systems, 8 credits. This course consists of 13
instructional units designed: (1) to provide the student with the funda­mental skills and knowledge for basic electricity, ignition, charging and
starting systems, parts management; (2) to diagnose, service, and repair
the lubrication, cooling, fuel, governor, and exhaust systems; and, (3) to
overhaul four-stroke and two-stroke cycle engines.

SER 121 ENGINE SERVICE AND ELECTRICAL SYSTEMS, 8 CREDITS
This course consists of 13 instructional units designed to (1) provide the
student with the fundamental skills and knowledges for basic electricity,
ignition, charging and starting systems, and parts management; and (2)
to diagnose, service and repair the lubrication, cooling, fuel, governor, and exhaust systems;

SER 131 OUTDOOR POWER EQUIPMENT REPAIR, 8 CREDITS.
This course consists of 14 instructional units designed to provide the
student an introduction to common types of outdoor power equipment and
provide them the fundamental skills and knowledge to diagnose, service, and repair power trains, brakes, clutches, transmissions, transaxles,
hydraulic systems, hydrostatic drives, front axles and steering, equip­ment drives, and tires and rims.

SER 141 MARINE OUTBOARD REPAIR I, 8 CREDITS.
A course to familiarize the student with the history, safety, tools, and
basic service of the marine industry.
SER 142 MARINE OUTBOARD REPAIR II, 8 CREDITS.
A course to familiarize the student with the repair of damaged power heads used in outboard engines.

SER 151 SMALL ENGINE BASICS - PART I, 4 CREDITS.
This course is the first part of Small Engine Basics (SER 111). This course is divided to accommodate evening students. SER 152 Small Engine Basics - Part II, 4 credits. A continuation of SER 151.

SER 152 SMALL ENGINE BASICS - PART II, 4 CREDITS.
The second half of SER 151.

SER 153 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART I, 4 CREDITS.
This course is the first part of Engine Service and Electrical Systems (SER 121). This course is divided to accommodate evening students.

SER 154 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART II, 4 CREDITS.
The second half of SER 153.

SER 155 OUTDOOR POWER EQUIPMENT - PART I, 4 CREDITS.
This course is the first part of Outdoor Power Equipment (SER 131). This course is divided to accommodate evening students.

SER 156 OUTDOOR POWER EQUIPMENT - PART II, 4 CREDITS.
The second half of SER 155.

SER 157 MARINE OUTBOARD REPAIR I - PART I, 4 CREDITS.
This course is the first part of Outboard Repair I (SER 141). This course is divided to accommodate evening students.

SER 158 MARINE OUTBOARD REPAIR I - PART II, 4 CREDITS.
The second half of SER 157.

SER 159 MARINE OUTBOARD REPAIR II - PART I, 4 CREDITS.
This course is the first part of Outboard Repair II (SER 142). This course is divided to accommodate evening students.

SER 160 MARINE OUTBOARD REPAIR II - PART II, 4 CREDITS.
The second half of SER 159.

SPC 106 FUNDAMENTALS OF SPEECH COMMUNICATION, 5 CREDITS.
This performance course includes the study of the principles of human communication: intrapersonal, interpersonal, and public. It surveys current communication theory and provides practical application.

SPC 151 FUNDAMENTALS OF SPEECH COMMUNICATION - PART I, 2.5 CREDITS.
This course is the first half of Fundamentals of Speech Communication (SPC 106). The course is divided to accommodate students enrolled in the Automotive Service Technology Associate Degree programs.

SPC 152 FUNDAMENTALS OF SPEECH COMMUNICATION - PART II, 2.5 CREDITS.
The second half of SPC 151.

SPC 106 FUNDAMENTALS OF SPEECH COMMUNICATION, 5 CREDITS.

SPC 151 FUNDAMENTALS OF SPEECH COMMUNICATION - PART I, 2.5 CREDITS.

SPC 152 FUNDAMENTALS OF SPEECH COMMUNICATION - PART II, 2.5 CREDITS.

SPC 153 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART I, 4 CREDITS.

SPC 154 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART II, 4 CREDITS.

SPC 155 OUTDOOR POWER EQUIPMENT - PART I, 4 CREDITS.

SPC 156 OUTDOOR POWER EQUIPMENT - PART II, 4 CREDITS.

SPC 157 MARINE OUTBOARD REPAIR I - PART I, 4 CREDITS.

SPC 158 MARINE OUTBOARD REPAIR I - PART II, 4 CREDITS.

SPC 159 MARINE OUTBOARD REPAIR II - PART I, 4 CREDITS.

SPC 160 MARINE OUTBOARD REPAIR II - PART II, 4 CREDITS.

SPC 153 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART II, 4 CREDITS.

SPC 154 ENGINE SERVICE AND ELECTRICAL SYSTEM - PART II, 4 CREDITS.

SPC 155 OUTDOOR POWER EQUIPMENT - PART II, 4 CREDITS.

SPC 156 OUTDOOR POWER EQUIPMENT - PART II, 4 CREDITS.

SPC 157 MARINE OUTBOARD REPAIR II - PART I, 4 CREDITS.

SPC 160 MARINE OUTBOARD REPAIR II - PART II, 4 CREDITS.

WELDING Diploma Program

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<td>WDT131</td>
<td>Gas Metal Arc Welding</td>
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<td>WDT141</td>
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<td>VTE 101</td>
<td>Technical Communication Skills I</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>VTM 101</td>
<td>Technical Mathematics  I</td>
<td>5</td>
<td>0</td>
<td>5</td>
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</table>

TOTAL CREDIT HOURS 49

WELDING Diploma Program (Evening)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>THEORY</th>
<th>LAB</th>
<th>CR.HR.</th>
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</thead>
<tbody>
<tr>
<td>WDT117</td>
<td>Blueprint Reading for Welders</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>WDT142</td>
<td>Basic Pipe Layout &amp; Fitting</td>
<td>5</td>
<td>0</td>
<td>5</td>
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<tr>
<td>WDT151</td>
<td>Basic Shielded Metal Arc Welding Part I</td>
<td>1.5</td>
<td>6</td>
<td>3.5</td>
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<tr>
<td>WDT152</td>
<td>Basic Shielded Metal Arc Welding Part II</td>
<td>1.5</td>
<td>6</td>
<td>3.5</td>
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<tr>
<td>WDT153</td>
<td>Advanced Shielded Metal Arc Welding Part I</td>
<td>1.5</td>
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<td>3.5</td>
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<tr>
<td>WDT154</td>
<td>Advanced Shielded Metal Arc Welding Part II</td>
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<td>3.5</td>
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<tr>
<td>WDT155</td>
<td>Gas Metal Arc Welding Part I</td>
<td>1.5</td>
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<td>3.5</td>
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<tr>
<td>WDT156</td>
<td>Gas Metal Arc Welding Part II</td>
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<td>6</td>
<td>3.5</td>
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<tr>
<td>WDT157</td>
<td>Certification in SMAW &amp; GMAW Part I</td>
<td>1.5</td>
<td>6</td>
<td>3.5</td>
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WELDING (Contd)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>THEORY</th>
<th>LAB</th>
<th>CR.HR</th>
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</thead>
</table>

| WDT 158  | Certification in SMAW & GMAW Part II              | 1.5    | 6   | 3.5   |

**Required General Education Courses:**

| CLC 101  | Vo-Tech Communication Skills I                    | 5      | 0   | 5     |
| VTM 101  | Vo-Tech Mathematics I                             | 5      | 0   | 5     |

**TOTAL CREDIT HOURS** 48

**WELDING**

Course Descriptions

**WDT 111 BASIC SHIELDED METAL ARC WELDING, 7 CREDITS.**
This course is designed to instruct the student in the safety procedures for arc welding, the testing procedures for fillet welds and the study of basic metallurgy.

**WDT 116 WELDING FOR CONSTRUCTION, 5 CREDITS.**
A course designed for building construction majors, this course provides instruction in the safety procedures for arc welding, the testing procedures for fillet welds and the study of basic metallurgy.

**WDT 117 BLUEPRINT READING FOR WELDERS, 5 CREDITS.**
This course offers instruction in the principles of reading and interpreting industrial blueprints as applied to welding.

**WDT 121 ADVANCED SHIELDED METAL ARC WELDING, 7 CREDITS.**
This course is designed to prepare the student to weld open root, single-v-groove joints using electrodes in the F3 and F4 groups, to use carbon arc gouging equipment and to provide an opportunity to practice the skills necessary to become proficient in AWS Code welding and certification. PREREQUISITE: WDT 111

**WDT 131 GAS METAL ARC WELDING PROCESSES, 7 CREDITS.**
This course is designed to provide the technical knowledge and the opportunity to practice the skills necessary to understand the basic fundamentals of Gas Metal Arc Welding and Flux Cored Arc Welding and to become proficient in using the gas metal arc welder to produce quality and safe welds.

**WDT 141 CERTIFICATION IN SMAW AND GMAW PROCESSES, 7 CREDITS.**
This course is designed to prepare the student to weld single-v-groove plates with backing and without backing using electrodes in the F3 and F4 groups in the 1G, 2G, 3G and 4G positions in the SMAW process. This course is also designed to prepare the student to weld single-v-groove plates in the 1G, 2G, 3G and 4G positions in the GMAW process. PREREQUISITES: WDT 121 and WDT 131

**WDT 142 BASIC PIPE LAYOUT AND FITTING, 5 CREDITS.**
This course is designed to provide the basic technical and practical knowledge necessary for the student to understand pipe layout and fitting.

**WDT 151 BASIC SHIELDED METAL ARC WELDING - PART II, 3.5 CREDITS.**
This course is the first half of Basic Shielded Metal Arc Welding (WDT 111). The course is divided to accommodate evening students.
Photos by Billie J. Qr

\[3.75(50-x) + 4.25x = \$202.50\]
## Application for Admission

**Bessemer State Technical College**

**PLEASE PRINT CLEARLY WITH A BLACK BALLPOINT PEN. ABBREVIATE WHERE NECESSARY**

<table>
<thead>
<tr>
<th><strong>NAME</strong></th>
<th>SOCIAL SECURITY NO.</th>
<th>NAME: LAST (Family or Surname)</th>
<th>FIRST</th>
<th>MIDDLE</th>
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<tr>
<th><strong>PHONE</strong></th>
<th>Have you resided, or will you have resided, in Alabama for the twelve month period immediately preceding the date you plan to enroll at Bessemer State Technical College?</th>
<th>Yes ☐ No ☐</th>
<th>APPLICANT'S PHONE NO. (______ )</th>
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<tr>
<th><strong>CURRENT ADDRESS</strong></th>
<th>NUMBER &amp; STREET</th>
<th>CITY OR TOWN</th>
<th>STATE</th>
<th>ZIP</th>
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<th>CITY OR TOWN</th>
<th>STATE</th>
<th>ZIP</th>
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<th><strong>BIRTH</strong></th>
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<th>DATE OF BIRTH</th>
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<td>Day Yr.</td>
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<th><strong>SEX</strong></th>
<th>DATE OF BIRTH</th>
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<tr>
<th><strong>COUNTRY OF CITIZENSHIP:</strong></th>
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<tr>
<th><strong>OTHER NAMES UNDER WHICH YOUR RECORDS MAY APPEAR (Including maiden)</strong></th>
<th>LAST</th>
<th>FIRST</th>
<th>MIDDLE</th>
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<tr>
<th><strong>ETHNICITY</strong></th>
<th>OTHER NAMES UNDER WHICH YOUR RECORDS MAY APPEAR (Including maiden)**</th>
<th>LAST</th>
<th>FIRST</th>
<th>MIDDLE</th>
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<tr>
<th><strong>ENROLLMENT DATE</strong></th>
<th>YOUR PLANNED ENROLLMENT DATE:</th>
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<tbody>
<tr>
<td></td>
<td>FALL 19 ☐ WINTER 19 ☐ SPRING 19 ☐ SUMMER 19 ☐</td>
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<thead>
<tr>
<th><strong>PARENT/GUARDIAN</strong></th>
<th>NAME: LAST</th>
<th>FIRST</th>
<th>MIDDLE</th>
<th>PHONE NO. (______ )</th>
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<tr>
<th><strong>ADDRESS: NUMBER &amp; STREET</strong></th>
<th>CITY OR TOWN</th>
<th>STATE</th>
<th>ZIP</th>
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<thead>
<tr>
<th><strong>INSTRUCTIONAL PROGRAM YOU PLAN TO ENTER</strong></th>
<th>TIME PREFERRED:</th>
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<tbody>
<tr>
<td></td>
<td>DAY CLASSES ☐</td>
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<table>
<thead>
<tr>
<th><strong>ACADEMIC GOALS</strong></th>
<th>ACADEMIC AWARD YOU ARE SEEKING AT BESSEMER STATE TECHNICAL COLLEGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ ASSOCIATE DEGREE ☐ OCCUPATIONAL ENHANCEMENT (Not seeking graduation award)</td>
</tr>
<tr>
<td></td>
<td>☐ DIPLOMA ☐ PERSONAL ENRICHMENT (Not seeking graduation award)</td>
</tr>
<tr>
<td></td>
<td>☐ CERTIFICATE ☐ TEMPORARY STUDENT (Not seeking graduation award)</td>
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<tr>
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<td>☐ UNDECIDED</td>
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</table>

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<table>
<thead>
<tr>
<th>ACADEMIC HISTORY</th>
<th>HIGH SCHOOL NAME</th>
<th>GRADUATION DATE</th>
</tr>
</thead>
<tbody>
<tr>
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<td>/ / Mo. Day Yr.</td>
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<tr>
<td></td>
<td>CITY/STATE</td>
<td>DO YOU HAVE A GED?</td>
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<td></td>
<td></td>
<td>□ YES</td>
</tr>
</tbody>
</table>

**NOTE:** You must write your high school and request a transcript be sent to Bessemer State Technical College, P.O. Box 308, Bessemer, AL 35021. Most schools charge a nominal fee for transcripts. If you have a GED Certificate, please provide the registrar's office with a copy of it for your permanent file.

**PREVIOUS COLLEGE:** New students must list all schools or colleges attended since leaving high school, including a current or anticipated enrollment, if applicable. Former students must list all school and colleges attended since leaving Bessemer State Technical College, including a current or anticipated enrollment, if applicable. If you have not attended any colleges since leaving high school or Bessemer State Tech, check block marked "NONE" to the right.

<table>
<thead>
<tr>
<th>NAME OF INSTITUTION</th>
<th>CITY/STATE</th>
<th>DATES ATTENDED</th>
<th>GRADUATE</th>
<th>DEGREE</th>
</tr>
</thead>
</table>

**NOTE:** If you wish to have academic credit from another college considered for transfer you must have earned a grade of "C" or better, the course must correspond to a course within our program and you must arrange for the other college to send an official transcript directly to the college's registrar's office.

<table>
<thead>
<tr>
<th>FINANCIAL INFORMATION</th>
<th>DO YOU PLAN TO APPLY FOR FINANCIAL ASSISTANCE?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IF YES, CHECK THE APPROPRIATE BOX(ES):</td>
</tr>
<tr>
<td></td>
<td>□ SCHOLARSHIP □ VETERAN'S BENEFITS □ JTPA □ OTHER</td>
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<td></td>
<td>□ REHABILITATION □ WAR ORPHAN □ PELL GRANT</td>
</tr>
</tbody>
</table>

**NOTE:** If you plan to participate in any financial assistance program at Bessemer State Technical College you must appear, in person, at the college's Office of Financial Assistance as soon as possible. Failure to comply with this requirement may cause a delay in receiving funds. Please note: Students enrolled at Bessemer State Tech for occupational, personal, or temporary reasons only are not eligible for federal financial aid and academic scholarships.

**MEDICAL INFORMATION**

PERSON TO BE NOTIFIED IN CASE OF EMERGENCY, IF SPOUSE OR PARENT CANNOT BE REACHED:

NAME: LAST FIRST MIDDLE PHONE NO. (   )

FAMILY PHYSICIAN PHONE NO. (   )

**SIGNATURES**

I hereby grant permission for my son or daughter or self to receive any emergency treatment or any other medical or surgical care deemed necessary; also, when necessary for executing such care, permission for hospitalization at any accredited hospital is granted, and I will assume responsibility for the bill for these services.

I hereby certify that the information contained in this application is accurate and complete to the best of my knowledge. I understand that submitting false, incomplete or misrepresented information constitutes grounds for rejection of this application or dismissal from college.

APPLICANT'S SIGNATURE DATE

PARENT/GUARDIAN SIGNATURE IF APPLICABLE DATE

It is the official policy of the Department of Postsecondary Education and Bessemer State Technical College that no person in Alabama shall, on the grounds of race, color, disability, sex, religion, creed, national origin, or age, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program, activity, or employment. Bessemer State Technical College complies with non-discriminatory regulations under Title VI and Title VII of the Civil Rights Act of 1964; Title IX Educational Amendment of 1972; and Section 504 of the Rehabilitation Act of 1973. Inquiries concerning this policy may be directed to Dr. W. Michael Bailey, President, Bessemer State Technical College, P.O. Box 308, Bessemer, Alabama, 35021.
Enrollment is four times each year. The College is in session 208 days and night classes are in session 175 evenings.

### Fall Quarter 1993
- **Pre-Registration**: August 9 - 31
- **Registration**: September 7 (Tue)
- **Classes Begin**: September 8 (Wed)
- **Holiday, Veterans Day**: November 11 (Thu)
- **Last Day of Classes**: November 16
- **Final Exams**: November 17 - 19

### Winter Quarter 1993 - 1994
- **Pre-registration**: November 1 - 19
- **Registration**: December 6
- **Classes Begin**: December 7 (Tue)
- **Holidays, Christmas & New Year**: December 20
- **Classes Resume**: January 3
- **Holiday, King/Lee**: January 17 (Mon)
- **Last Day of Classes**: March 1
- **Final Exams**: March 2 - 4

### Spring Quarter 1994
- **Pre-Registration**: February 14 - March 4
- **Registration**: March 11 (Fri)
- **Classes Begin**: March 14 (Mon)
- **Holiday, Spring Break**: March 28 - April 1
- **Last Day of Classes**: May 26 (Thu)
- **Final Exams**: May 27 - 31

### Summer Quarter 1994
- **Pre-Registration**: May 16 - June 2
- **Registration**: June 20 (Mon)
- **Classes Begin**: June 21 (Tue)
- **Holiday, Independence Day**: July 4 (Mon)
- **Pre-Registration for Fall Qtr**: August 8 - 31
- **Last Day of Classes**: August 26
- **Final Exams**: August 29 - 31
Scholarship Application
Bessemer State Technical College

Please mail the completed application to
Bessemer State Technical College, Financial Assistance Office, P.O. Box 308, Bessemer, AL 35021

Name: ___________________________ Social Security Number: ___________________________

Address: ___________________________

Street ___________________________ City ___________________________ County ___________________________ State ___________________________ Zip ___________________________

Field of Study You Plan to Pursue in College: ___________________________

High School Attended: ___________________________ Graduation Date: ___________________________ GPA: ___________________________ (4.0)

Parent's Name(s): ___________________________

Parent's Address: ___________________________

Street ___________________________ City ___________________________ State ___________________________ Zip ___________________________

Please state in the space below why receiving this scholarship is important to you: ___________________________

________________________________________________

Please list your involvement in extracurricular activities at school, local clubs, or civic organizations, etc.: ___________________________

________________________________________________

Student's Signature ___________________________ Date ___________________________

Note: This application is not complete and will not be considered until at least one letter of recommendation and a copy of the high school academic transcript is received. Applicants must also have at least a "B" average in their field of study and be enrolling at Bessemer State Technical College as a full-time student.

Note: Students should see pages 14-16 of the 1993-94 College Catalog for information on Federal Aid Programs and other types of financial assistance.

OFFICE USE ONLY

Date Received Application: ___________________________ Letter(s) of Recommendation Received: ___________________________

Cumulative GPA: ___________________________ Considered: ___________________________

Result: ___________________________
Sample Class Schedule

<table>
<thead>
<tr>
<th>Reference Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
<th>Room Number</th>
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We'll Help You Succeed!