

J.F. INGRAM STATE TECHNICAL COLLEGE

2026-2027 College Catalog

From the President



Welcome to J.F. Ingram State Technical College.

At Ingram State, our purpose is clear: to prepare students with the education, technical skills, and industry-recognized credentials they need to succeed in the workforce and build a more promising future.

Our programs connect learning directly to employment. Through career technical education, adult education, workforce training, and reentry services, students develop the foundational skills, technical competencies, and work habits employers expect. These practical, credible skills help individuals compete for employment, advance in the workplace, and contribute to their families and communities.

This work matters well beyond the classroom. When students leave our programs prepared to work, Alabama employers gain skilled employees, communities are strengthened, and the likelihood of recidivism is reduced. Every credential earned and every skill mastered represents progress for the student and a stronger workforce for our state.

We are committed to ensuring our programs remain responsive to the needs of employers and Alabama's economy. We are proud of the dedication of our faculty and staff, the strength of our partnerships, and, most importantly, the determination of our students.

I encourage every student to take full advantage of the opportunities available through Ingram State. The skills developed here can open doors, create new opportunities, and provide a foundation for lasting success.

David Walters
President

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2026-2027 Academic Calendar

Fall 2026 Semester

August 17 & 18, Local Professional Development/ Faculty/Staff Duty Day (No Classes)
August 19, Registration
August 20, Classes Begin
August 26, Last Day Drop/Add
September 7, Holiday (Labor Day – College Closed)
October 12, Faculty Non-Duty Day, Duty for Staff
October 15, Mid Term
October 16, Mid Term Grades Due; Mini Term Begins
November 11, Holiday (Veterans Day – College Closed)
November 23 & 24, State Professional Development
November 25, Faculty Non-Duty Day, Duty for Staff (No Classes)
November 26 & 27, Holiday (Thanksgiving – College Closed)
December 14, 15, & 16, Exams
December 17, Classes End
December 18, Grades Due and Faculty/Staff Duty Day
December 21, 22, & 23, Faculty Non-Duty Days, Duty for Staff (No Classes)
December 25, Holiday (Christmas Day – College Closed)
December 24, 28, 29, 30, & 31, Local Holidays
December 24 – December 31, College Closed

Spring 2027 Semester

January 1, Holiday (New Year Day – College Closed)
January 4, Registration
January 5, Classes Begin
January 11, Last Day Drop/Add
January 18, Holiday (Robert E. Lee/Martin Luther King – College Closed)
February 15, Faculty/Staff Duty Day (No Classes)
March 2, Mid Term
March 3, Mid Term Grades Due; Mini Term Begins
March 22-26, Faculty Non-Duty Days, Duty for Staff (Spring Break)
April 26, Faculty/Staff Duty Day (No Classes)
April 29 and 30, May 3, Exams
May 4, Classes End and Grades Due
May 5 & 6, Commencement Ceremony/ Faculty/Staff Duty Day (No Classes)
May 7, Faculty Non-Duty Day, Duty for Staff

Summer 2027 Semester

May 10, Registration
May 11, Classes Begin
May 17, Last Day Drop/Add
May 31, Holiday (Memorial Day – College Closed)
June 1, Faculty/Staff Duty Day (No Classes)
June 18, Holiday (Juneteenth – College Closed)
June 24, Mid Term
June 25, Mid Term Grades Due
July 5, Holiday (Independence Day – College Closed)
August 3, 4, & 5, Exams
August 6, Classes End and Grades Due
August 9 - 13, Faculty Non-Duty Days, Duty for Staff (No Classes)

J.F. Ingram State Technical College (ISTC) was established by the Alabama Legislature in 1965 for the express purpose of providing training to incarcerated individuals. The College delivers career technical education, GED preparation and testing, and job placement services to incarcerated students from 21 correctional institutions and the Alabama Therapeutic Education facility; to parolees at eleven Alabama Bureau of Pardons and Paroles day reporting centers, and one county jail.

ISTC is a member of the Alabama Community College System, under the control of the Alabama Community College System Board of Trustees. The Governor serves as chair of the Board by virtue of elected office. Other board members are appointed from seven districts, with one state-wide member and an ex-officio liaison from the State Board of Education. ISTC's president is appointed by the Chancellor and approved by the board. ISTC is accredited by the Council on Occupational Education (COE). The Council is located at 7840 Roswell Road, Building 300, Suite 325, Atlanta, GA 30350.

Alabama Community College System Board of Trustees

Governor Kay Ivey, President

District 1 Mr. J.E.B. Shell	**District 4** Mr. Matthew Woods	**District 7** Mr. Llevelyn Rhone
District 2 Mr. John Mitchell	**District 5** Mr. Goodrich "Dus" Rogers	**Member-At-Large** Mr. Blake McAnally
District 3 Ms. Valerie Gray	**District 6** Mr. Milton A. Davis	**Ex Officio** Dr. Yvette Richardson

Alabama Community College System

Mr. Jimmy Baker, Chancellor

Our Mission

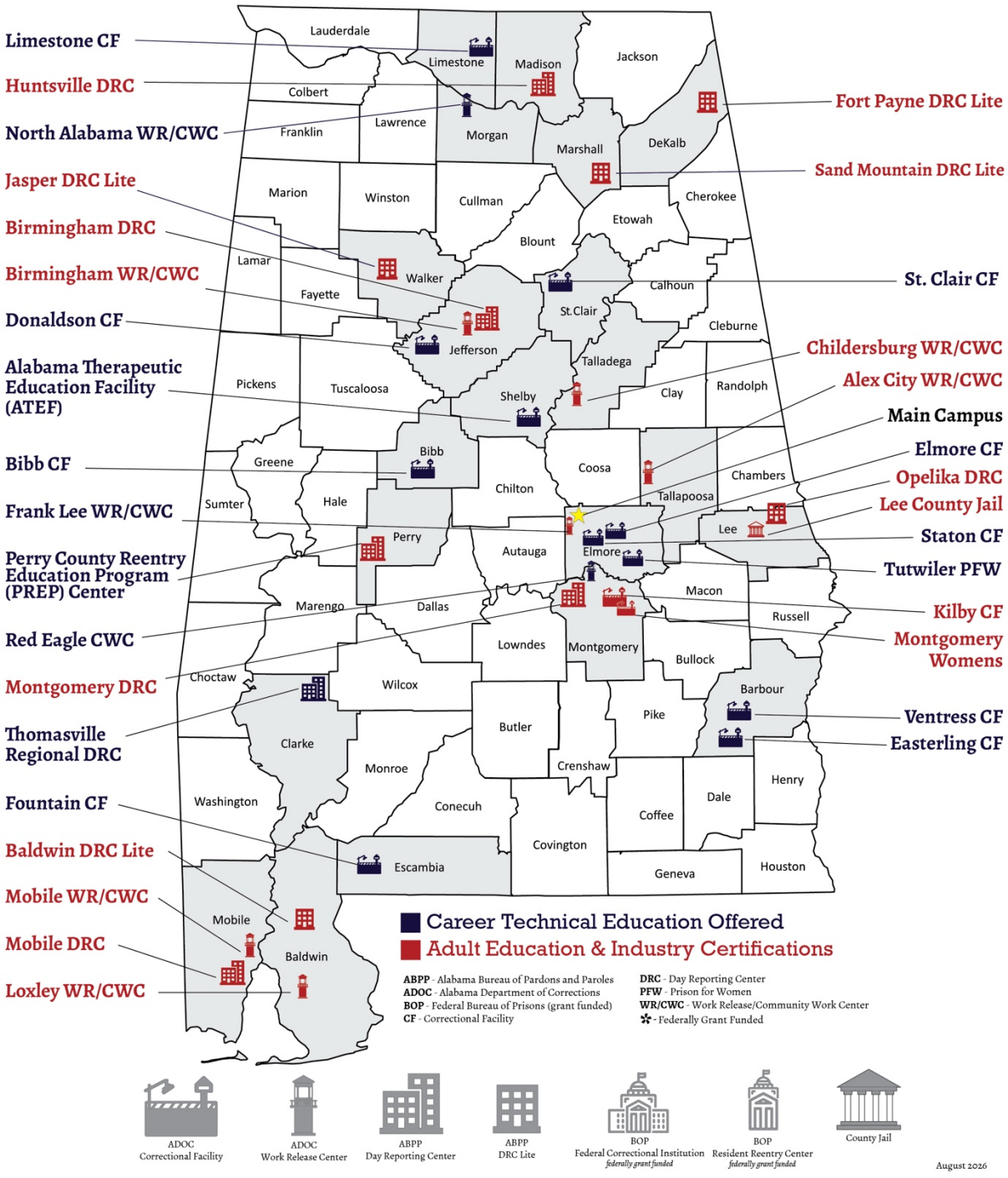
The mission of J.F. Ingram State Technical College is to provide comprehensive educational services, workforce development, and reentry services to justice-involved individuals to reduce recidivism, return responsible individuals to society, and strengthen Alabama's workforce and communities.

Our Vision

The vision of J.F. Ingram State Technical College is to be a national leader in correctional education while promoting actions to reduce recidivism and sustain fiscal accountability.

J.F. INGRAM STATE TECHNICAL COLLEGE

Correctional Education Map



SERVICE LOCATIONS

Main Campus
5375 Ingram Road
Deatsville, AL 36022

Draper Instructional Service Ctr
2800 Highway 143
Elmore, AL 36025

Tutwiler Instructional Service Ctr
8970 US Highway 231 North
Wetumpka, AL 36092

Bibb Correctional Facility
565 Bibb Lane
Brent, AL 35034

Bullock Correctional Facility
Highway 82 East
Union Springs, AL 36089

Alabama Therapeutic Education Facility
102 Industrial Parkway
Columbiana, AL 35051

Donaldson Correctional Facility
100 Warrior Lane
Bessemer, AL 35023

Easterling Correctional Facility
200 Wallace Drive
Clio, AL 36017

Fountain Correctional Facility
9677 Highway 21 North
Atmore, AL 36503

Kilby Correctional Facility
12201 Edna Brake Lucas Drive
Montgomery, AL 36117

Limestone Correctional Facility
28779 Nick Davis Road
Harvest, AL 35749

St. Clair Correctional Facility
1000 St. Clair Road
Springville, AL 35146

Ventress Correctional Facility
Highway 239 North
Clayton, AL 35146

Birmingham Community-based Facility
1216 25th Street North
Birmingham, AL 35234

Loxley Community-based Facility / Community Work Center
14880 County Road 64
Loxley, AL 36551

North Alabama Community-based Facility / Community Work Center
1401 Highway 20 West
Decatur, AL 35601

Red Eagle Community Work Center
1290 Red Eagle Road
Montgomery, AL 36110

Montgomery Women's Facility
12085 Wares Ferry Road
Montgomery, AL 36117

Birmingham Day Reporting Center
2020 12th Avenue North
Birmingham, AL 35234

Huntsville Day Reporting Center
2801 Westcorp Blvd. SW
Huntsville, AL 35805

Mobile Day Reporting Center
3410 Demetropolis Road
Mobile, AL 36693

Montgomery Day Reporting Ctr
231 Clayton Street
Montgomery, AL 36104

Thomasville Day Reporting Center
2117 Bashi Road
Thomasville, AL 36784

Tuscaloosa Day Reporting Center
220 14th Street, Unit 150
Tuscaloosa, AL 35401

Baldwin Day Reporting Ctr Lite
209 Rain Drive
Bay Minette, AL 36507

Fort Payne Day Reporting Center Lite
211 Gault Avenue South
Fort Payne, AL 35967

Guntersville Day Reporting Center Lite
310 Carlisle Street
Albertville, AL 35950

Jasper Day Reporting Ctr Lite
2209 Delaware Avenue
Jasper, AL 35501

Opelika Day Reporting Ctr Lite
2213 Center Hill Road
Opelika, AL 36807

Perry County Correctional Center
4805 Highway 80
Uniontown, AL 36786

Nondiscrimination Policy Statement

In accordance with the official policy of the Alabama Community College System, the Alabama Community College System Board of Trustees, and all other applicable federal regulations, J.F. Ingram State Technical College is committed to equal opportunity in employment and education. No person in Alabama shall, on the grounds of race, color, handicap, gender, religion, creed, national origin, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program, activity, or employment or any other protected status.

It is the policy of ISTC to comply fully with all applicable provisions of Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973, as amended; Title IX of the Education Amendments of 1972, as amended; the Age Discrimination Act of 1975, as amended; and all regulations, guidelines, and standards lawfully adopted under the statutes. These statutes prohibit discrimination based on race, color, national origin, handicap, gender, or age.

Any student or employee or specific class of persons who believe themselves to have been subjected to discrimination prohibited by any of these statutes may, in person or by personal representative, file a written complaint with ISTC's institutional compliance officer: Coordinator of Human Resources, J. F. Ingram State Technical College, 5375 Ingram Road, Post Office Box 220350, Deatsville, AL 36022. Questions or complaints regarding discrimination, harassment, or Title IX may be directed to the following appropriate College compliance official:

Title IX Coordinator for Employees
Andrea Richardson
Human Resources Coordinator

Title IX Coordinator for Students
Dr. Craig Shore
Associate Dean of Students

Correctional Education Policy Statement

As stated in the above non-discrimination policy (equal opportunity/equal access), decisions about student participation in programs or courses at Ingram State Technical College are made without regard to the applicant's race, color, disability, gender, religion, creed, national origin, or age.

ISTC operates under ACCS Board of Trustees Policy 718.01, and 16-3-20 and 16-60-170 Code of Alabama, 1975, as amended.

Safety Procedures

The practice of safety is an integral part of all instruction at ISTC. The school has a comprehensive safety plan and operations manual, which is evaluated and updated annually. Each office also houses a copy of the ISTC Emergency Preparedness manual.

Standards of Conduct

During the registration process, students read and attest to their understanding of the student regulations and conduct code as they appear in the student handbook. Violations of the Student Code of Conduct may result in disciplinary action, up to and including dismissal from the College. Information regarding student conduct expectations, disciplinary procedures, and appeal processes is available in the Student Handbook

Drug-Free Workplace Policy

In compliance with the drug-free workplace requirements of Public Law 100-690 for recipients of federal contracts and grants, and ACCS Board of Trustees action item No. XI-1 of March 30, 1989, ISTC has established a comprehensive controlled substance policy. ISTC Policy 613.01 details the responsibilities of all employees and the administrative procedures that will be followed should the policy be violated.

Privacy of Student Records Policy

In accordance with Public Law 93-380, the Family Educational Rights and Privacy Act (FERPA) of 1974, all students and former students of J.F. Ingram State Technical College have the right to inspect and review their official educational records maintained by the College. FERPA limits the release of information concerning a student without the student's written consent except as authorized by law.

Students have the right to request amendment of educational records they believe to be inaccurate, misleading, or otherwise in violation of their privacy rights. Students also have the right to request that directory information not be released, in accordance with College procedures.

Appropriate College officials may access student records when such access is necessary to perform their assigned duties. Additional information regarding student record access, disclosure, amendment procedures, and student rights under FERPA is provided in the Student Handbook.

Sex Discrimination, Sexual Harassment, and Title IX

J.F. Ingram State Technical College is committed to maintaining a learning and working environment free from sex discrimination, sexual harassment, sexual assault, dating violence, domestic violence, stalking, retaliation, and other conduct prohibited by Title IX of the Education Amendments of 1972 and other applicable federal and state laws.

The College prohibits discrimination on the basis of sex in its educational programs, activities, admissions, and employment practices. Allegations of conduct prohibited by Title IX will be addressed promptly and equitably in accordance with College policies and procedures.

Questions regarding Title IX or complaints involving sex discrimination, sexual harassment, sexual assault, dating violence, domestic violence, stalking, or retaliation should be directed to the following appropriate Title IX Coordinator:

Title IX Coordinator for Students
Dr. Craig Shore
Associate Dean of Students
P.O. Box 220350
Deatsville, AL 36022
Craig.Shore@istc.edu
334-514-5063

Title IX Coordinator for Employees
Andrea Richardson
Human Resources Coordinator
P.O. Box 220350
Deatsville, AL 36022
Andrea.Richardson@istc.edu
334-290-3251

Detailed reporting procedures, supportive measures, grievance processes, and appeal rights are provided in the Student Handbook and applicable College policies.

Grievance Procedures

J.F. Ingram State Technical College is committed to resolving complaints and grievances in a fair, timely, and equitable manner. A grievance is an alleged violation, misunderstanding, or misinterpretation of College policy by a member of the professional staff, nonprofessional staff, or student body.
Students who believe they have a complaint or grievance should first contact the Dean of Students or the appropriate College official. Employees who believe they have a grievance should first contact the Coordinator of Human Resources. The College encourages concerns to be resolved at the lowest appropriate administrative level whenever possible.

Students are guaranteed procedural rights and due process in matters involving student discipline, academic grievances, and formal complaints. The College maintains procedures for student complaints, academic grievances, discrimination and harassment complaints, and disability-related grievances.
Detailed grievance procedures, including investigation, hearing, appeal, and reporting processes, are provided in the Student Handbook and applicable employee policies and procedures.

Attendance Policy

J. F. Ingram State Technical College adheres to ACCS BOT Policy 809.01, Chancellor's Procedures for Policy 809.01 and ISTC policy 809.01 regarding student attendance. Students are expected to attend class regularly and participate fully in instructional activities. Recognizing the unique circumstances of the correctional education environment, discretion may be exercised by instructors and Student Services personnel when absences occur for reasons beyond a student's control. Attendance concerns should be communicated to the appropriate College official. Additional attendance procedures are outlined in the Student Handbook.

Live-Work Policy

It is the philosophy of ISTC that live work is a valuable part of career technical college instructional programs. This live work is done by students in the laboratory component of their curriculum. Instructors assign live work to students only when they are ready to perform or practice the skill involved at the appropriate point in the student's program of study.

All live work is conducted in accordance with ACCS Board of Trustees Policy 710.01, Chancellor's Procedures for Policy 710.01 and ISTC Policy 710.01.

Americans with Disabilities Act

It is the policy and practice of ISTC to comply fully with the Americans with Disabilities Act of 1990 and to ensure equal opportunity in education and employment for all qualified persons with disabilities. The College will make every reasonable attempt to provide accommodations to students and employees with disabilities. It is the responsibility of the student or employee to notify the College of any special needs. If a disability exists which requires special materials or services, this must be made known to the Coordinator of Human Resources so that adequate accommodations can be made. Questions regarding disability accommodations or accessibility may be directed to the appropriate ADA Coordinator.

ADA Coordinator for Employees
Andrea Richardson
Human Resources Coordinator

P.O. Box 220350
Deatsville, AL 36022

andrea.richardson@istc.edu
334-514-5059

ADA Coordinator for Students
Dr. Ramona Cox
Dean of Students

P.O. Box 220350
Deatsville, AL 36022

ramona.cox@istc.edu
334-514-5063

Contraband Policy

J.F. Ingram State Technical College and its employees will fully support Alabama Department of Corrections (ADOC) policies and efforts to monitor, control, and prevent the introduction of contraband into ISTC and DOC facilities. ISTC employees are prohibited by this policy by action or inaction from any activities that contravene DOC policies pertaining to contraband. ISTC employees are responsible for ensuring that inmates do not come into possession of contraband. This responsibility not only includes inmates under the direct supervision of the employee, but those within observation of the employee. Employees are charged with acting positively to enforce this policy with all inmates as defined in this policy.

ISTC employees must immediately report any incident where an inmate is in possession of contraband or where the employee reasonably suspects an inmate is attempting to obtain contraband.

Policy 512-Contraband of the ISTC Policy and Procedures Manual contains specific guidelines for the prevention and introduction of contraband.

Expressive Activities (ACCS Board Policy 224.01)

The Alabama Community College System supports the rights of students, faculty, staff, and other members of the campus community to engage in lawful expressive activities, including the exchange of ideas, discussions, speeches, assembly, and the distribution of literature, as permitted by law and applicable institutional procedures. These activities must not disrupt educational programs, College operations, institutional security, or the rights of others, and must comply with all applicable laws, College policies, and correctional facility rules and security requirements. The College may enforce reasonable, content-neutral restrictions related to safety, security, and facility operations. For complete information, refer to *ACCS Board Policy 224.01: Expressive Activities by the Campus Community.*

Prison Rape Elimination Act (PREA)

Prison Rape Elimination Act (PREA) of 2003 is a federal statute enacted in September of 2003 to provide for the analysis of the incidents and effects of prison rape in federal, state, and local institutions and provide information, resources, recommendations and funding to protect individuals from prison rape. This Alabama Department of Corrections (ADOC) Administrative Regulation (AR) establishes the responsibilities, policies, and procedures to implement a zero-tolerance policy by prohibiting, preventing, detecting, and responding to inmate sexual offenses, sexual harassment, and custodial sexual misconduct (Alabama Department of Corrections, Administrative Regulation #454 INMATE SEXUAL ASSAULT AND HARRASSMENT AWARENESS (Prison Rape Elimination Act- PREA), III Definitions and Acronyms, § P.

ADMISSIONS

J.F. Ingram State Technical College has an open admission policy for incarcerated and formerly incarcerated men and women housed in facilities it serves. The College admits eligible applicants on an ongoing basis, and students may enroll in courses up to the last day to add a course for that semester. Admission decisions will be made without regard to the applicant's race, color, disability, sex, religion, creed, national origin, sexual orientation, or age.

Admission Requirements

Certificate Programs

1. Applicant must be at least 16 years of age
2. Approval by correctional facility job board
3. Must be free of serious disciplinary infractions for a minimum of one (1) year prior to admission, as verified by the Alabama Department of Corrections (ADOC).
4. Completed and signed ISTC admission application
5. Complete the Test of Adult Basic Education (TABE)
6. High School Diploma or General Education Development diploma (GED) is preferred, non-graduates may be enrolled in in the institution under the Ability to Benefit Criteria
7. Provide one (1) primary form of identification.

Admission by Ability to Benefit

All students seeking admission under this section must be assessed using the state-approved Test of Adult Basic Education (TABE) assessment. This test is given to assess academic levels in reading, language, and math. Students who do not meet the required entrance level scores are referred to the Adult Education/GED program.

Students enrolled in Adult Education are closely monitored for successful academic progress. Students are tested periodically to determine their ability to benefit from enrollment in career technical programs. The Ability to Benefit is determined by an increase in the academic level of performance and by ABE instructor advisement.

Readmission of Prior Students

Students who have been out of school for one (1) academic year or more must meet the current requirements for entry into career technical programs.

2026-2027 Tuition/Fee Rates

August 19, 2026 – August 6, 2027

Cr. Hrs.	Tuition*	Tech. Fee	Facilities Renewal Fee	Bond Res. Fee	Supplies Fee	All Fees	Total
1	$153	$15	$15	$1	$17	$48	$201
2	$306	$30	$30	$2	$34	$96	$402
3	$459	$45	$45	$3	$51	$144	$603
4	$612	$60	$60	$4	$68	$192	$804
5	$765	$75	$75	$5	$85	$240	$1,005
6	$918	$90	$90	$6	$102	$288	$1,206
7	$1,071	$105	$105	$7	$119	$336	$1,407
8	$1,224	$120	$120	$8	$136	$384	$1,608
9	$1,377	$135	$135	$9	$153	$432	$1,809
10	$1,530	$150	$150	$10	$170	$480	$2,010
11	$1,683	$165	$165	$11	$187	$528	$2,211
12	$1,836	$180	$180	$12	$204	$576	$2,412
13	$1,989	$195	$195	$13	$221	$624	$2,613
14	$2,142	$210	$210	$14	$238	$672	$2,814
15	$2,295	$225	$225	$15	$255	$720	$3,015
16	$2,448	$240	$240	$16	$272	$768	$3,216
17	$2,601	$255	$255	$17	$289	$816	$3,417
18	$2,754	$270	$270	$18	$306	$864	$3,618
19	$2,907	$285	$285	$19	$323	$912	$3,819
20	$3,060	$300	$300	$20	$340	$960	$4,020
21	$3,213	$315	$315	$21	$357	$1,008	$4,221

Note: Some programs and /or classes may require additional fees. $5.00 of each tuition credit hour will be transferred to the ACCS System Office.

***Includes $20/credit hour ACCS Enhancement Fee**

Official School Catalog Addendum - Terms Beginning after 3/1/2019 (PL 115-251 Sec. 301)

The following individuals shall be charged a rate of tuition not to exceed the in-state rate for tuition and fees purposes:

- A Veteran using educational assistance under either chapter 30 (Montgomery G.I. Bill -Active-Duty Program) or chapter 33 (Post-9111 G.I. Bill), of title 38, United States Code, who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of discharge or release from a period of active-duty service of 90 days or more.

- Anyone using transferred post-9/11 GI Bill benefits (38 U.S.C. § 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of the transfer, discharge or release from a period of active-duty service of 90 days or more.

- Anyone described above remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the expiration of the three-year period following discharge or release as described above and must be using educational benefits under either chapter 30 or chapter 33, of title 38, United States Code.

- Anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 331l(b)(9)) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence).

- Anyone using transferred Post-9/11 G.I. Bill benefits (38 U.S.C. § 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal state of residence) and the transferor is a member of the uniformed service who is serving on active duty.

- Anyone using educational assistance under chapter 31, Vocational Rehabilitation/Employment (VR&E), also be charged the resident rate. Effective for courses and terms beginning after March 1, 2019, a public institution of higher learning must charge the resident rate to chapter 31 participants, as well as the other categories of individuals described above. When an institution charges these individuals more than the rate for resident students, VA is required to disapprove programs of education sponsored by VA.

- The policy shall be read to be amended as necessary to be compliant with the requirements of 38 U.S.C. 3679(c) as amended.

I certify the above current policy is true and correct:

J.F. Ingram State Technical College — Name of School

August 26, 2026 — Date

David Walters — President

of individual authorized to make official revisions to the catalog

Tuition and Fees

Refund of tuition will be made according to the following for students who withdraw:

Before the first day of class	100 %
During the first week of class	75 %
During the second week of class	50 %
During the third week of class	25 %

An administrative fee not to exceed five (5) percent of tuition and other institutional charges or $100, whichever is smaller, shall be assessed for each withdrawal within the period beginning the first day of class and ending at the third.

Refunds

1. Withdrawal from the College

To withdraw from the College, a student should secure a withdrawal form from Student Services office or representative to complete and return the form. A refund of tuition applies to students who completely withdraw from the College during the refund period and so notify the Student Services office or representative's office in writing of their withdrawal. The date to establish refund will be determined by the date withdrawal is initiated and acknowledged (documented) by an appropriate college official. Any financial obligation to the College is deducted from any refund due.

a) Refunds for fall and spring terms:

Prior to first day of class	100%
First Week*	75%
Second Week	50%
Third Week	25%

(beginning the same day as late registration fee applies)

b) Refund for Summer Term

Specific dates are in the term schedule. Each refund period is approximately three days during summer term.

2. Reduction in Credit Hours

Students who reduce their credit hours during the drop/add period will receive at mid-term a tuition adjustment at the applicable rate. After the end of the drop/add period, students who reduce their credit hours without withdrawing from the College will receive no tuition refund.

Student Support and Readiness Services

Initial orientation is provided to all students upon enrollment in the College. The College provides support services designed to promote student success, persistence, and program completion. Areas of support may include educational planning, career and transition readiness, academic support, resource navigation, and student retention initiatives coordinated through Student Services and Behavioral & Readiness personnel.

Repetition of Courses

A student may not repeat for credit any course in which the grade received was A, B, or C, excluding courses which may be repeated for credit as allowed in the course directory. When a student repeats a course in which a D or an F was earned, the original grade (GPA) and the repeated grade will be entered on the student's original transcript. The cumulative grade point average will be determined from all quality points and attempted hours that have been accrued; however, only the last grade awarded will be included in calculating the GPA for graduation purposes.

Grading System

Cumulative Grade Point Average (GPA): The grade point average is based on all hours attempted at the institution on a 4-point scale as follows:

A-Excellent:	(91 - 100)	4 Quality Points
B-Good:	(81 - 90)	3 Quality Points
C-Average:	(71 - 80)	2 Quality Points
D-Poor:	(61 - 70)	1 Quality Point
F-Failure:	(60 or less)	0 Quality Points

No Quality Points are awarded for the designations listed below:

I-Incomplete: Must be made up no later than the end of the following semester or the grade of "F" will be assigned. 0-points.

AU-Audit: Course taken for no credit. Must be declared prior to the end of the registration period and may not be changed thereafter. 0-points.

W-Withdrawal: Credit hours will not be averaged into the GPA. 0-points.

S- **Successful:** Indicates successful completion of a non-credit course, program, training, or credentialing activity. This grade does not carry academic credit and is not calculated in a grade point average (GPA).

U- **Unsuccessful:** Indicates unsuccessful completion of a non-credit course, program, training, or credentialing activity. This grade does not carry academic credit and is not calculated in a grade point average (GPA).

Note: Any credit awarded based on a competency exam, or as transfer credit accepted from coursework accomplished at another institution, will be designated as such by the college. All applicable academic designations above will appear on the student's transcript.

General Principles for Transfer Credit

A course completed at other regionally accredited post-secondary institutions with a passing grade will be accepted for transfer as potentially creditable toward graduation requirements. For students admitted on academic probation, only courses in which they have earned a course grade of "C" or better will be accepted for transfer. Awarding transfer credit to fulfill graduation requirements will be based on applicability of the credits to the requirements of the degree sought. Credit may be extended based on the comprehensive evaluation of demonstrated and documented competencies and previous formal training.

Note: Transfer credits that are five years old or older will not be accepted.

Standards of Academic Progress

The Chancellor's procedures for ACCS Board of Trustees Policy No. 714.01 "Standard of Academic Progress" shall apply to all students unless otherwise noted.

1.1 Required GPA levels for students according to number of hours attempted at institution.

1.11 Students who have attempted 12-21 semester credit hours at the institution must maintain a 1.5 cumulative GPA.

1.12 Students who have attempted 22-32 semester credit hours at the institution must maintain 1.75 cumulative GPA.

1.13 Students who have attempted 33 or more semester credit hours at the institution must maintain a 2.0 cumulative GPA.

2.1 Intervention for student success.

2.11 When a student is placed on academic probation, one term academic suspension, or calendar year academic suspension, college officials may provide intervention for the student taking steps including, but not limited to, imposing maximum course loads, requiring a study course, and/or prescribing other specific courses.

3.1 Application of standards of progress.

3.11 When the cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the institution, the student's status is clear.

3.12 When students' cumulative GPA is below that required for the number of credit hours attempted at the institution, they are placed on academic probation. When the cumulative GPA of a student who is on academic probation remains below the GPA required for the total number of credit hours attempted at the institution, but the semester GPA is 2.0 or above, the student remains on academic probation. When the cumulative GPA of a student who is on academic probation remains below the GPA required for the total number of credit hours attempted at the institution, and the semester GPA is below 2.0, the student is suspended for one semester. The transcript will read SUSPENDED—ONE SEMESTER. When the cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the institution, the student's status is clear.

3.13 The student who is suspended for one semester may appeal. If after appeal, the student is readmitted without serving the one semester suspension, the transcript will read SUSPENDED—ONE SEMESTER/READMITTED UPON APPEAL. The student who is readmitted upon appeal re-enters the institution on academic probation.

3.14 A student who is on academic probation after being suspended for one semester (whether the student has served the suspension or has been readmitted upon appeal) without having since achieved clear academic status, and whose cumulative GPA falls below the level required for the total number of hours attempted at the institution, but whose semester GPA is 2.0, or above, will remain on academic probation until the student achieves the required GPA for the total number of hours attempted.

3.15 A student returning from a one-term or one-year suspension, and while on academic probation, fails to obtain the required GPA for the number of hours attempted, and fails to maintain a term GPA of 2.0, will be placed on a one-year suspension.

3.16 The student may appeal a one-term or one-year suspension.

3.17 The permanent student record will reflect the student's status (except when the status is clear). When appropriate, the record will reflect ACADEMIC PROBATION, ACADEMIC SUSPENSION-ONE TERM, ACADEMIC PROBATION-ONE YEAR, ONE-TERM SUSPENSION-READMITTED ON APPEAL, OR ONE-YEAR SUSPENSION-READMITTED ON APPEAL.

4.1 If a student declares no contest of the facts leading to suspension but simply wishes to request consideration for readmission, the student may submit a request in writing for an appeal for readmission to the admissions committee within a designated, published number of days of receipt of the notice of suspension. During the meeting of the admissions committee, which shall not be considered a due process hearing but rather a petition for readmission, the

student shall be given an opportunity to present a rationale and/or statement of mitigating circumstances in support of immediate readmission. The decision of the admissions committee, together with the materials presented by the student, shall be placed in the college's official records. Additionally, a copy of the written decision shall be provided to the student. Equity, reasonableness, and consistency should be the standards by which such decisions are measured.

5.1 Definition of Terms

Grade Point Average (GPA) – The GPA based on all hours attempted during any one term at the institution based on a 4-point scale.

Cumulative Grade Point Average (GPA) – The GPA based on all hours attempted at the institution based on a 4-point scale.

Clear Academic Status – The status of a student whose cumulative GPA is at, or above, the level required by this policy for the number of credit hours attempted at the institution.

Academic Probation

(1) The status of a student whose cumulative GPA falls below the level required by this policy for the total number of credit hours attempted at the institution; or

(2) The status of a student who was on academic probation the previous term and whose cumulative GPA for that semester remained below the level required by this policy for the total number of credit hours attempted at the institution, but whose GPA for the term was 2.0 or above.

One Semester Academic Suspension – The status of a student who was on academic probation the previous term, but who has never been suspended or who, since suspension, had achieved clear academic status and, whose cumulative GPA that term was below the level required by this policy for the total number of credit hours attempted at the institution, and whose GPA for that term was below 2.0.

One Year Academic Suspension – The status of a student who was on academic probation the term and who had been previously suspended, without since having achieved clear academic status whose cumulative GPA that term, remained below the level required by this policy for the total required credit hours attempted at the institution, and whose semester GPA for that term was below 2.0.

Appeal of suspension - The process by which an institution shall allow a student suspended for one year (whether a "native" student or a transfer student) to request readmission without serving the suspension.

Job Placement and Re-Entry Services

J.F. Ingram State Technical College provides Job Placement and Re-Entry Services to support successful transition to employment, continued education, and community reintegration. Through career coaching, transition planning, job placement assistance, and connections to community resources, the College seeks to equip students with the tools necessary for long-term personal and professional success.

CAREER TECHNICAL PROGRAMS

Dept.	Program Name	Location(s)	Awards
ABR	Automotive Body Repair	Draper/Fountain	STC
AUM	Automotive Mechanics	Fountain/Main Campus	STC
BAR	Barbering	Fountain/Draper/Main Campus	STC
CAB	Cabinetmaking	Main Campus	STC
CAR	Carpentry	Easterling/Fountain/Main Campus/St. Clair	STC
COS	Cosmetology	Tutwiler	STC
DEM	Diesel Mechanics	Draper	STC
ELT	Electrical Technology	Draper/Easterling/St. Clair	STC
ASC	HVAC	Draper/Fountain/Main Campus/Ventress	STC
INT	Industrial Maintenance Technology	Main Campus/Ventress	STC
LGT	Logistics/Supply Chain Technology	Draper/Easterling/Tutwiler	STC
MRT	Marine Technology	Main Campus	STC
SET	Office Administration	Tutwiler	STC
PLB	Plumbing	Draper	STC
WDT	Welding	Draper/Fountain/St. Clair/Main Campus/Tutwiler	STC

Awards Key:
STC – Short Term Certificate

AUTOMOTIVE BODY REPAIR

Program Overview

Automotive Body Repair (ABR) is a 48-semester hour program combining classroom theory with hands-on lab activities. Requirements for completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of automotive body repair.

Occupational Data[1]

Automotive body repairers restore and refinish vehicle bodies and frames. They repair damage caused by collisions and make vehicles look and drive like new. According to the Bureau of Labor Statistics, the average annual salary for auto body technicians was $47,020 in 2021. Employment of automotive body repairers is projected to grow two percent from 2020-2030, slightly slower than the average for all occupations. The best opportunities in automotive body repair field will be available to those with industry certification.

Awards

Program Completion Certificate

Automotive Body Repair

Short Term Certificates

Components of Auto Body
Non-Structural Repair
Structural Repair
Surface Preparation & Refinishing

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contacts

Mr. James Bishop, Instructor
Draper Instructional Service Center
334-514-3589
james.bishop@istc.edu

Mr. Thomas Rolin, Instructor
Fountain Correctional Facility
334-285-5177 ext. 6402
thomas.rolin@istc.edu

Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Credit Hours
ABR111	Non-Structural Repair	3
ABR114	Non-Structural Panel Replacement	3
ABR122	Surface Preparation	3
ABR123	Paint Application & Equipment	3
ABR151	Safety and Environmental Practices	3
ABR154	Automotive Glass and Trim	3
ABR156	Automotive Cutting and Welding	3
ABR213	Automotive Structural Analysis	3
ABR214	Automotive Structural Repair	3
ABR223	Automotive Mechanical Components	3
ABR224	Automotive Electrical Components	3
ABR255	Steering and Suspension	3
ABR258	Heating and AC in Collision Repair	3
ABR261	Restraint Systems	3
ABR265	Paint Defects and Final Repair	3
ABR269	Estimating and Damage Analysis	3

Elective Courses

Course	Title	Credit Hours
ABR157	Automotive Plastic Repair	3
ABR181	Special Topics in Auto Body	3
ABR182	Special Topics in Auto Body	3
ABR266	Alum. Welding in Collision Repair	3
ABR281	Special Topics in Auto Body	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Automotive Body Repair
Program Completion Certificate

First Semester

ABR111	Non-Structural Repair	3
ABR114	Non-Structural Panel Replacement	3
ABR151	Safety & Environmental Practices	3
ABR156	Automotive Cutting and Welding	3

Second Semester

ABR213	Automotive Structural Analysis	3
ABR214	Automotive Structural Repair	3
ABR255	Steering and Suspension	3
ABR269	Estimating and Damage Analysis	3

Third Semester

ABR122	Surface Preparation	3
ABR123	Paint Application & Equipment	3
ABR261	Restraint Systems	3
ABR265	Paint Defects & Final Repair	3

Fourth Semester

ABR154	Automotive Glass and Trim	3
ABR223	Automotive Mechanical Components	3
ABR224	Automotive Electrical Components	3
ABR258	Heating & AC in Collision Repair	3
Total Credit Hours		**48**

Automotive Body Repair
Non-Structural Repair
Short Term Certificate

ABR111	Non-Structural Repair	3
ABR114	Non-Structural Panel Replacement	3
ABR151	Safety & Environmental Practices	3
ABR156	Automotive Cutting and Welding	3
Total Credit Hours		**12**

Automotive Body Repair
Structural Repair
Short Term Certificate

ABR213	Automotive Structural Analysis	3
ABR214	Automotive Structural Repair	3
ABR255	Steering and Suspension	3
ABR269	Estimating and Damage Analysis	3
Total Credit Hours		**12**

Automotive Body Repair
Surface Preparation and Refinishing
Short Term Certificate

ABR122	Surface Preparation	3
ABR123	Paint Application & Equipment	3
ABR261	Restraint Systems	3
ABR265	Paint Defects & Final Repair	3
Total Credit Hours		**12**

Automotive Body Repair
Components of Auto Body
Short Term Certificate

ABR154	Automotive Glass and Trim	3
ABR223	Automotive Mechanical Components	3
ABR224	Automotive Electrical Components	3
ABR258	Heating & AC in Collision Repair	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

AUTOMOTIVE MECHANICS

Program Overview

Automotive Mechanics (AUM) is a 45-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of automotive mechanics.

Occupational Data[1]

Automotive service technicians and mechanics, often called *service technicians,* inspect, maintain, and repair cars and light trucks. According to the Bureau of Labor Statistics, the median annual wage for automotive mechanics and service technicians was $46,880 in 2021. Employment in this field is projected to remain steady from 2020-2030. Job seekers should note industry certification is often required once the person is employed.

Awards

Program Completion Certificate

Automotive Mechanics

Short Term Certificate

Braking Systems
Engine Performance
Heating/Air Conditioning
Transmissions
Wheel Alignment

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contacts

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richard.etheridge@istc.edu

Mr. Shawn Moore, Instructor
Main Campus
334-514-8150
shawn.moore@istc.edu

Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	9
Program Completion	5 semesters	45

Required Program Courses

Course	Title	Credit Hours
AUM101	Fundamentals of Auto Technology	3
AUM112	Electrical Fundamentals	3
AUM121	Braking Systems	3
AUM122	Steering and Suspension	3
AUM124	Automotive Engines	3
AUM130	Drive Train and Axles	3
AUM133	Motor Vehicle Air Conditioning	3
AUM162	Electrical and Electronic Systems	3
AUM212	Adv. Electrical/Electronic Systems	3
AUM220	Advanced Automotive Engines	3
AUM224	Manual Transmission/Transaxle	3
AUM230	Automatic Transmission/Transaxle	3
AUM239	Engine Performance	3
AUM244	Engine Performance/Diagnostics	3
AUM246	Automotive Emissions	3
AUM281	Special Topics	3

Elective Courses

Course	Title	Credit Hours
AUM182	Special Topics	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Automotive Mechanics
Program Completion Certificate

First Semester

AUM101	Fund. of Automotive Technology	3
AUM112	Electrical Fundamentals	3
AUM121	Braking Systems	3

Second Semester

AUM122	Steering and Suspension	3
AUM124	Automotive Engines	3
AUM162	Electrical and Electronic Systems	3

Third Semester

AUM130	Drive Train and Axles	3
AUM133	Motor Vehicle Air Conditioning	3
AUM212	Adv. Electrical/Electronic Systems	3

Fourth Semester

AUM220	Advanced Automotive Engines	3
AUM239	Engine Performance	3
AUM244	Engine Performance & Diagnostics	3

Fifth Semester

AUM224	Manual Transmission/Transaxle	3
AUM230	Automatic Transmission/Transaxle	3
AUM246	Automotive Emissions	3
Total Credit Hours		**45**

Automotive Mechanics
Braking System
Short Term Certificate

AUM101	Fund. of Automotive Technology	3
AUM112	Electrical Fundamentals	3
AUM121	Braking Systems	3
Total Credit Hours		**9**

Automotive Mechanics
Wheel Alignment
Short Term Certificate

AUM122	Steering and Suspension	3
AUM124	Automotive Engines	3
AUM162	Electrical and Electronic Systems	3
Total Credit Hours		**9**

Automotive Mechanics
Heating/Air Conditioning
Short Term Certificate

AUM130	Drive Train and Axles	3
AUM133	Motor Vehicle Air Conditioning	3
AUM212	Adv. Electrical/Electronic Systems	3
Total Credit Hours		**9**

Automotive Mechanics
Engine Performance
Short Term Certificate

AUM220	Advanced Automotive Engines	3
AUM239	Engine Performance	3
AUM244	Engine Performance & Diagnostics	3
Total Credit Hours		**9**

Automotive Mechanics
Transmission
Short Term Certificate

AUM224	Manual Transmission/Transaxle	3
AUM230	Automatic Transmission/Transaxle	3
AUM246	Automotive Emissions	3
Total Credit Hours		**9**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

BARBERING

Program Overview

Barbering (BAR) is a 39-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications.[1] The program prepares individuals to shave and trim facial/neck hair and beards, cut/style hair, give facial/scalp massages, apply cosmetic treatments, and obtain licensure. [1]

Occupational Data[2]

Physical stamina is important for barbers as they are on their feet all day. Most work in shops or salons, many have a large and loyal client base. According to the Bureau of Labor Statistics, continuing demand for personal care services will result in new jobs nationwide and employment is projected to remain constant from 2020-2030.

Awards

Program Completion Certificate

Barbering

Short Term Certificate

Barbering Fundamentals
Business Management
Chemical Texture Services

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contacts

Ms. Connie Barnett, Instructor
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Ms. Phoenix Wofford, Instructor
Main Campus
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Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	9
Program Completion	4 semesters	39

Required Program Courses

Course	Title	Credit Hours
BAR109	Bacteriology and Sanitation	3
BAR110	Orientation to Barbering	3
BAR111	Introduction to Barbering Lab	3
BAR112	Science of Barbering	3
BAR113	Fund. of Barbering Applications	3
BAR114	Barbering and Styling Lab	3
BAR115	Cutting and Styling Techniques	3
BAR120	Properties of Chemistry	3
BAR121	Chemical Hair Processing	3
BAR130	Marketing & Business Management	3
BAR132	Styling and Design	3
BAR133	Styling/Management Lab	3
BAR143	State Board Review	3
BAR187	Special Topics in Barbering	3

Elective Courses

Course	Title	Cr. Hours
BAR185	Special Topics in Barbering	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Barbering
Program Completion Certificate

First Semester

BAR109	Bacteriology and Sanitation	3
BAR110	Orientation to Barbering	3
BAR111	Introduction to Barbering Lab	3
BAR130	Marketing & Business Management	3

Second Semester

BAR112	Science of Barbering	3
BAR120	Properties of Chemistry	3
BAR121	Chemical Hair Processing	3

Third Semester

BAR114	Barbering and Styling Lab	3
BAR115	Cutting and Styling Techniques	3
BAR132	Styling and Design	3

Fourth Semester

BAR113	Fund. of Barbering Applications	3
BAR133	Styling/Management Lab	3
BAR143	State Board Review	3

Total Credit Hours **39**

Barbering
Barbering Fundamentals
Short Term Certificate

BAR109	Bacteriology and Sanitation	3
BAR110	Orientation to Barbering	3
BAR111	Introduction to Barbering Lab	3
Total Credit Hours		**9**

Barbering
Chemical Texture Services
Short Term Certificate

BAR112	Science of Barbering	3
BAR113	Fund. of Barbering Applications	3
BAR120	Properties of Chemistry	3
BAR121	Chemical Hair Processing	3
Total Credit Hours		**12**

Barbering
Business Management
Short-Term Certificate

BAR114	Barbering and Styling Lab	3
BAR130	Marketing & Business Management	3
BAR132	Styling and Design	3
Total Credit Hours		**9**

Barbering
Advanced Barbering
Short-Term Certificate

BAR133	Styling/Management Lab	3
BAR143	State Board Review	3
Total Credit Hours		**9**

[1] Lauderdale, Madison, Mobile, and Jefferson counties have independently produced licensing requirements.

[2]Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

CABINETMAKING

Program Overview

Cabinetmaking (CAB) is a 48-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of cabinetmaking.

Occupational Data[1]

Cabinetmakers work in residential and commercial settings, where they use creative skills in design and analytical skills to interpret drawings and layouts. Tasks include cutting, assembling, finish-sanding, staining and sealing wood cabinets**.** According to the Bureau of Labor Statistics, cabinetmakers earned an average of $36,710 in 2021. Though companies are more likely to hire employees who are computer savvy, cabinet makers who are expert woodworkers will continue to have good job opportunities.

Awards

Program Completion Certificate

Cabinetmaking

Short Term Certificate

Basic Cabinetmaking
Millwork and Finishing
Shop Management
Wood Turning

Industry Certification

National Career Readiness Credential
NCCER CORE
OSHA 10-hr General Industry Safety/Health

Program Contact

Mr. Ray Albright, Instructor
Main Campus
334-514-1364
ray.albright@istc.edu

Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hours
CAB101	Introduction to Cabinetmaking	3
CAB102	Intro to Lumber and Wood Products	3
CAB103	Sizes, Dimensions and Joints	3
CAB104	Cabinet Shop Operations	3
CAB110	Equipment Maintenance	3
CAB140	Wood Finishing Fundamentals	3
CAB141	Wood Finishing	3
CAB204	Cabinetmaking and Millwork	3
CAB205	Furniture Construction	3
CAB206	Special Projects in Furniture Const.	3
CAB211	Cabinet Installation and Trim Work	3
CAB225	Kitchen and Bath Design	6
CAB230	Estimating Costs in Cabinetmaking	3
CAB260	Woodturning I	3
CAB261	Wood Turning II	3

Elective Courses

Course	Title	Cr. Hours
CAB181	Special Topics	3
CAB182	Special Topics	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Cabinetmaking
Program Completion Certificate

First Semester

CAB101	Introduction to Cabinetmaking	3
CAB102	Intro to Lumber and Wood Products	3
CAB103	Sizes, Dimensions and Joints	3
CAB104	Cabinet Shop Operations	3

Second Semester

CAB110	Equipment Maintenance	3
CAB140	Wood Finishing Fundamentals	3
CAB141	Wood Finishing	3
CAB204	Cabinetmaking and Millwork	3

Third Semester

CAB205	Furniture Construction	3
CAB225	Kitchen and Bath Design	6
CAB260	Wood Turning I	3
CAB261	Wood Turning II	3

Fourth Semester

CAB206	Special Projects in Furniture Const.	3
CAB211	Cabinet Installation and Trim Work	3
CAB230	Estimating Costs in Cabinetmaking	3
Total Credit Hours		**48**

Cabinetmaking
Intro to Basic Cabinetmaking
Short Term Certificate

CAB101	Introduction to Cabinetmaking	3
CAB102	Intro to Lumber and Wood Products	3
CAB103	Sizes, Dimensions and Joints	3
CAB104	Cabinet Shop Operations	3
Total Credit Hours		**12**

Cabinetmaking
Millwork and Finishing
Short Term Certificate

CAB110	Equipment Maintenance	3
CAB140	Wood Finishing Fundamentals	3
CAB141	Wood Finishing	3
CAB204	Cabinetmaking and Millwork	3
Total Credit Hours		**12**

Cabinetmaking
Shop Management
Short Term Certificate

CAB206	Special Projects in Furniture Const.	3
CAB211	Cabinet Installation and Trim Work	3
CAB230	Estimating Costs in Cabinetmaking	3
Total Credit Hours		**9**

Cabinetmaking
Wood Turning
Short Term Certificate

CAB205	Furniture Construction	3
CAB225	Kitchen and Bath Design	6
CAB260	Wood Turning I	3
CAB261	Wood Turning II	3
Total Credit Hours		**15**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

CARPENTRY

Program Overview

Carpentry (CAR) is a 36-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of carpentry.

Occupational Data[1]

Carpenters construct, repair, and install building frameworks and structures made from wood and other materials. Their median annual wage was $48,260 in 2021. According to the Bureau of Labor Statistics, employment of carpenters is expected to decline slightly from 2020-2030.

Awards

Program Completion Certificate

Carpentry

Short Term Certificate

Cabinetry Basics
Floor & Wall Basics
Framing Fundamentals
Stairs, Molding & Finishing

Industry Certification

National Career Readiness Credential
NCCER CORE
NCCER Carpentry Level I
OSHA 10-hr General Industry Safety/Health

Program Contact

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Mr. Jeff Thomas, Instructor
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jeff.thomas@istc.edu

Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	9
Program Completion	4 semesters	36

Required Program Courses

Course	Title	Cr. Hours
CAR111	Construction Basics	3
CAR112	Floors, Walls, and Site Preparation	3
CAR113	Floors, Walls and Site Prep Lab	3
CAR114	Construction Basics Lab	3
CAR121	Introduction to Blueprint Reading	3
CAR131	Roof and Ceiling Systems	3
CAR132	Interior and Exterior Finish	3
CAR133	Roof and Ceiling Systems Lab	3
CAR203	Special Projects in Carpentry	3
CAR214	Introduction to Cabinetry	3
CAR224	Floor, Wall and Ceiling Specialties	3
CAR228	Stairs, Molding and Trim	3

Elective Courses

Course	Title	Cr. Hours
CAR122	Concrete and Forming	3
CAR123	Concrete and Forming Lab	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Carpentry
Program Completion Certificate

First Semester

CAR111	Construction Basics	3
CAR114	Construction Basics Lab	3
CAR121	Introduction to Blueprint Reading	3

Second Semester

CAR112	Floors, Walls, and Site Preparation	3
CAR113	Floors, Walls and Site Prep Lab	3
CAR132	Interior and Exterior Finish	3

Third Semester

CAR131	Roof and Ceiling Systems	3
CAR133	Roof and Ceiling Systems Lab	3
CAR214	Introduction to Cabinetry	3

Fourth Semester

CAR203	Special Projects in Carpentry	3
CAR224	Floor, Wall and Ceiling Specialties	3
CAR228	Stairs, Molding and Trim	3
Total Credit Hours		**36**

Carpentry
Construction Basics & Safety
Short Term Certificate

CAR111	Construction Basics	3
CAR114	Construction Basics Lab	3
CAR121	Introduction to Blueprint Reading	3
Total Credit Hours:		**9**

Carpentry
Floor and Wall Basics
Short Term Certificate

CAR112	Floors, Walls, and Site Prep	3
CAR113	Floors, Walls, and Site Prep Lab	3
CAR132	Interior and Exterior Finish	3
Total Credit Hours:		**9**

Carpentry
Framing Fundamentals
Short Term Certificate

CAR131	Roof and Ceiling Systems	3
CAR133	Roof and Ceiling Systems Lab	3
CAR214	Introduction to Carpentry	3
Total Credit Hours:		**9**

Carpentry
Stairs, Molding and Finishing
Short Term Certificate

CAR203	Special Projects in Carpentry	3
CAR-224	Floor, Wall and Ceiling Specialties	3
CAR-228	Stairs, Molding and Trim	3
Total Credit Hours:		**9**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

COSMETOLOGY

Program Overview

Cosmetology (COS) is a 48-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. The program is designed to help students acquire the knowledge and skills needed to cut, trim, and style scalp, facial, and body hair, apply cosmetic preparations, perform manicures and pedicures, massage the head and extremities, and prepare for employment as a licensed cosmetologist.

Occupational Data[1]

Physical stamina is important for cosmetologists as they are on their feet all day. Most work in shops or salons, many have a large and loyal client base. According to the Bureau of Labor Statistics, continuing demand for personal care services will result steady employment during the period from 2020-2030.

Awards

Program Completion Certificate

Cosmetology

Short Term Certificate

Fundamentals of Chemical Services
Fundamentals of Cosmetology
Salon Management and Technology
Spa Techniques

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contact

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Tutwiler Instructional Service Center
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Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hours
COS111	Introduction to Cosmetology	3
COS112	Introduction to Cosmetology Lab	3
COS113	Theory of Chemical Services	3
COS114	Chemical Services Lab	3
COS115	Hair Coloring Theory	3
COS116	Hair Coloring Lab	3
COS117	Basic Spa Technique	3
COS118	Basic Spa Techniques Lab	3
COS123	Cosmetology Salon Practices	3
COS125	Career/Personal Development	3
COS142	App Chemistry/Cosmetology Lab	3
COS144	Hair Shaping and Design	3
COS151	Nail Care	3
COS167	State Board Review	3
COS181	Special Topics	3
COS182	Special Topics	3

Elective Courses

Course	Title	Cr. Hours
COS152	Nail Care Applications	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Cosmetology
Program Completion Certificate

First Semester

COS111	Cosmetology Science and Art	3
COS112	Cosmetology Science and Art Lab	3
COS113	Chemical Methodology	3
COS114	Chemical Services Lab	3

Second Semester

COS115	Hair Coloring Theory	3
COS116	Hair Coloring Lab	3
COS142	App Chemistry/Cosmetology Lab	3
COS151	Nail Care	3

Third Semester

COS117	Basic Spa Techniques	3
COS118	Basic Spa Techniques Lab	3
COS123	Cosmetology Salon Practices	3
COS144	Hair Shaping and Design	3

Fourth Semester

COS125	Career/Personal Development	3
COS167	State Board Review	3
COS181	Special Topics	3
COS182	Special Topics	3
Total Credit Hours		**48**

Cosmetology
Fundamentals of Cosmetology
Short Term Certificate

COS111	Cosmetology Science and Art	3
COS112	Cosmetology Science and Art Lab	3
COS113	Chemical Methodology	3
COS114	Chemical Services Lab	3
Total Credit Hours		**12**

Cosmetology
Fundamentals of Chemical Services
Short Term Certificate

COS115	Hair Coloring Theory	3
COS116	Hair Coloring Lab	3
COS142	App Chemistry/Cosmetology Lab	3
COS151	Nail Care	3
Total Credit Hours		**12**

Cosmetology
Spa Techniques
Short Term Certificate

COS117	Basic Spa Techniques	3
COS118	Basic Spa Techniques Lab	3
COS123	Cosmetology Salon Practices	3
COS144	Hair Shaping and Design	3
Total Credit Hours		**12**

Cosmetology
Salon Management and Technology
Short Term Certificate

COS125	Career/Personal Development	3
COS167	State Board Review	3
COS181	Special Topics	3
COS182	Special Topics	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

DIESEL MECHANICS

Program Overview

Diesel Mechanics (DEM) is a 48-semester hour program combining classroom theory and hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of diesel mechanics.

Occupational Data[1]

Diesel mechanics inspect, repair, and overhaul buses and trucks, and maintain and/or repair any type of diesel engine. Diesel mechanics usually work in repair shops but may occasionally repair vehicles on roadsides or at worksites. According to the Bureau of Labor Statistics, the median annual wage for diesel mechanics was $48,690 in 2021. Job prospects will be best for those who have completed postsecondary training in diesel engine repair.

Awards

Program Completion Certificate

Diesel Mechanics

Short Term Certificate

Electrical Fundamentals
Engine Repair
Heavy Duty Brake Repair
Train Service

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contact

Mr. James Hayes, Instructor
Draper Instructional Service Center
334-514-3590
james.hayes@istc.edu

Estimated Program Length

Award	Length	Cr. Hours
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hours
DEM104	Basic Engines	3
DEM111	Equip Safety/Mech. Fundamentals	3
DEM122	Heavy Vehicle Brakes	3
DEM123	Pneumatics and Hydraulics	3
DEM124	Electronic Engine Systems	3
DEM125	Heavy Vehicle Drive Trains	3
DEM126	Advanced Engines	3
DEM127	Fuel Systems	3
DEM128	Heavy Vehicle Drive Train Lab	3
DEM129	Diesel Engine Lab	3
DEM130	Electrical/Electronic Fundamentals	3
DEM135	HV Steering/Suspension Systems	3
DEM137	Heating/AC/Refrigeration Systems	3
DEM170	Heavy Vehicle Air Brakes	3
DEM183	Special Topics in Power Train	3
DEM186	Special Projects in Comm. Vehicles	3

Elective Courses

Course	Title	Cr. Hours
DEM105	Preventive Maintenance	3
DEM181	Special Topics in Electrical	3
DEM182	Special Topics in Engines	3
DEM184	ST HD Brakes/Steering/Suspension	3
DEM191	Special Projects in Diesel Mechanics	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Diesel Mechanics
Program Completion Certificate

First Semester

DEM104	Basic Engines	3
DEM111	Equip Safety/Mech Fundamentals	3
DEM126	Advanced Engines	3
DEM129	Diesel Engine Lab	3

Second Semester

DEM122	Heavy Vehicle Brakes	3
DEM123	Pneumatics and Hydraulics	3
DEM135	HV Steering/Suspension Systems	3
DEM170	Heavy Vehicle Air Brakes	3

Third Semester

DEM125	Heavy Vehicle Drive Trains	3
DEM128	Heavy Vehicle Drive Train Lab	3
DEM183	Special Projects in Power Train	3
DEM186	Special Projects in Comm. Vehicles	3

Fourth Semester

DEM124	Electronic Engine Systems	3
DEM127	Fuel Systems	3
DEM130	Electrical/Electronic Fundamentals	3
DEM137	Heating/AC/Refrigeration Systems	3
Total Credit Hours		**48**

Diesel Mechanics
Engine Repair
Short Term Certificate

DEM104	Basic Engines	3
DEM111	Equip Safety/Mech. Fundamentals	3
DEM126	Advanced Engines	3
DEM129	Diesel Engine Lab	3
Total Credit Hours		**12**

Diesel Mechanics
Heavy Duty Brake Repair
Short Term Certificate

DEM122	Heavy Vehicle Brakes	3
DEM123	Pneumatics and Hydraulics	3
DEM135	HV Steering/Suspension Systems	3
DEM170	Heavy Vehicle Air Brakes	3
Total Credit Hours		**12**

Diesel Mechanics
Train Service
Short Term Certificate

DEM125	Heavy Vehicle Drive Trains	3
DEM128	Heavy Vehicle Drive Train Lab	3
DEM183	Special Projects in Power Train	3
DEM186	Special Projects in Comm. Vehicles	3
Total Credit Hours		**12**

Diesel Mechanics
Electrical Fundamentals
Short Term Certificate

DEM124	Electronic Engine Systems	3
DEM127	Fuel Systems	3
DEM130	Electrical/Electronic Fundamentals	3
DEM137	Heating/AC/Refrigeration Systems	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

ELECTRICAL TECHNOLOGY

Program Overview

Electrical Technology (ELT) is a 39-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. The program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of electrical technology.

Occupational Data[1]

Electrical technicians install operate, maintain, and repair electric systems including residential, commercial and industrial electric power wiring, AC/DC motors, controls, and electrical distribution panels. According to the Bureau of Labor Statistics the median average wage for electrical technicians was $60,040 in 2021. Job growth over the coming decade is projected to grow around nine percent, much faster than other career fields.

Awards

Program Completion Certificate

Electrical Technology

Short Term Certificate

Commercial/Industrial Wiring
Industrial Controls
Residential Wiring

Industry Certification

National Career Readiness Credential
NCCER CORE
NCCER Electrical Level 1
OSHA 10-hr General Industry Safety/Health

Program Contacts

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Mr. Gregg Smith, Instructor
St. Clair Correctional Facility
334-514-6396
gregg.smith@istc.edu

Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	9/12
Program Completion	3 semesters	39

Required Program Courses

Course	Title	Cr. Hrs.
ELT108	DC Fundamentals	3
ELT109	AC Fundamentals	3
ELT110	Wiring Methods	3
ELT116	Residential Wiring	6
ELT117	AC/DC Machines	3
ELT118	Commercial/Industrial Wiring I	3
ELT209	Motor Controls I	3
ELT212	Motor Controls II	3
ELT230	Programmable Controls	6
ELT241	National Electric Code	3
ELT242	Journeyman Master Prep Exam	3

Elective Courses

Course	Title	Cr. Hrs.
ELT122	Advanced AC/DC Machines	3
ELT244	Conduit Bending and Installation	3
ELT245	Electrical Grounding Systems	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Electrical Technology
Program Completion Certificate

First Semester

ELT108	DC Fundamentals	3
ELT109	AC Fundamentals	3
ELT116	Residential Wiring	6

Second Semester

ELT110	Wiring Methods	3
ELT117	AC/DC Machines	3
ELT118	Commercial/Industrial Wiring I	3

Third Semester

ELT209	Motor Controls I	3
ELT230	Programmable Controls	6

Fourth Semester

ELT212	Motor Controls II	3
ELT241	National Electric Code	3
ELT242	Journeyman Master Prep Exam	3
Total Credit Hours		**39**

Electrical Technology
Residential Wiring
Short Term Certificate

ELT108	DC Fundamentals	3
ELT109	AC Fundamentals	3
ELT116	Residential Wiring	6
Total Credit Hours		**12**

Electrical Technology
Commercial/Industrial Wiring
Short Term Certificate

ELT110	Wiring Methods	3
ELT117	AC/DC Machines	3
ELT118	Commercial/Industrial Wiring I	3
Total Credit Hours		**9**

Electrical Technology
Industrial Controls
Short Term Certificate

ELT209	Motor Controls I	3
ELT230	Programmable Controls	6
Total Credit Hours		**9**

Electrical Technology
Advanced Electrical
Short Term Certificate

ELT212	Motor Controls II	3
ELT241	National Electric Code	3
ELT242	Journeyman Master Prep Exam	3
Total Credit Hours		**9**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

HEATING, VENTILATION & AIR CONDITIONING

Program Overview

Heating, Ventilation and Air Conditioning is a maximum 48-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment.

Occupational Data[1]

HVAC technicians work on HVAC systems that control the temperature and air quality in buildings. Because HVAC systems have become increasingly complex, employers generally prefer applicants with postsecondary education or who have completed an apprenticeship. Some states require technicians to be licensed. According to the Bureau of Labor Statistics, in 2021 the average salary for an HVAC technician was $48,630 annually.

Awards

Program Completion Certificate
Heating, Ventilation & Air Conditioning

Short Term Certificate
Basic Circuit Boards
Basic HVAC
Basic Repair Service
Repair Service

Industry Certification

EPA Refrigerant Handling
National Career Readiness Certificate
NCCER CORE/ HVAC Level 1
OSHA 10-hr General Industry Safety/Health

Program Contacts

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Mr. George Walker, Instructor
Ventress Correctional Facility
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george.walker@istc.edu

Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hrs.
ASC111	Principles of Refrigeration	3
ASC112	HVAC/R Service Procedures	3
ASC113	Refrigeration Piping Practices	3
ASC121	Principles of Electricity for HVAC/R	3
ASC122	HVAC/R Electric Circuits	3
ASC123	HVAC/R Electrical Components	3
ASC125	Fund of Gas/Electrical Heat Systems	6
ASC127	HVAC/R Electric Motors	3
ASC132	Residential Air Conditioning	3
ASC138	Customer Relations in HVAC/R	3
ASC147	Refrigerant T/R Theory	3
ASC152	Heat Pump Systems	6
ASC182	Special Topics in AC/Refrigeration II	3
ASC210	Troubleshooting HVAC/R Systems	3

Elective Courses

Course	Title	Cr. Hrs.
ASC119	Fundamentals/Gas Heating Sys	3
ASC120	Fundamentals/Electric Heat Sys Lab	3
ASC128	Heat Load Calculations	3
ASC181	Special Topics in AC/Refrigeration I	3
ASC185	Special Topics in AC/Refrigeration	2

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

HVAC
Program Completion Certificate

First Semester

ASC111	Principles of Refrigeration	3
ASC113	Refrigeration Piping Practices	3
ASC121	Principles of Electricity for HVAC/R	3
ASC122	HVAC/R Electric Circuits	3

Second Semester

ASC123	HVAC/R Electrical Components	3
ASC125	Fund of Gas/Electrical Heat Systems	6
ASC127	HVAC/R Electrical Motors	3

Third Semester

ASC112	HVAC/R Service Procedures	3
ASC132	Residential Air Conditioning	3
ASC147	Refrigerant Tran/Recovery Theory	3
ASC182	Special Topics in AC/Ref II	3

Fourth Semester

ASC138	Customer Relations	3
ASC152	Heat Pump Systems	6
ASC210	Troubleshooting HVAC/R Systems	3
Total Credit Hours		**48**

HVAC
Basic Repair Service
Short Term Certificate

ASC111	Principles of Refrigeration	3
ASC113	Refrigeration Piping Practices	3
ASC121	Principles of Electricity for HVAC/R	3
ASC122	HVAC/R Electric Circuits	3
Total Credit Hours		**12**

HVAC
Basic Circuit Boards
Short Term Certificate

ASC123	HVAC/R Electrical Components	3
ASC125	Fund of Gas/Electrical Heat Systems	6
ASC127	HVAC/R Electrical Motors	3
Total Credit Hours		**12**

HVAC
Basic HVAC
Short Term Certificate

ASC112	HVAC/R Service Procedures	3
ASC132	Residential Air Conditioning	3
ASC147	Refrigerant Transition/Recovery Theory	3
ASC182	Special Topics in AC/Refrigeration II	3
Total Credit Hours		**12**

HVAC
Repair Service
Short Term Certificate

ASC138	Customer Relations	3
ASC152	Heat Pump Systems	6
ASC210	Troubleshooting HVAC/R Systems	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

INDUSTRIAL MAINTENANCE TECHNOLOGY

Program Overview

Industrial Maintenance Technology (INT) is a 48-semester hour certificate program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can earn stackable certificates and industry certifications. The program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of industrial maintenance.

Occupational Data[1]

Industrial maintenance technicians maintain and repair factory equipment and other industrial machinery, such as conveying systems, production machinery, and packaging equipment. Millwrights install, dismantle, repair, reassemble, and move machinery in factories, power plants, and construction sites. According to the Bureau of Labor Statistics, the median annual wage for industrial maintenance technicians, machinery mechanics, machinery maintenance workers, and millwrights was $59,380 in 2021. Employment in this field is projected to grow around 19 percent over the coming decade, as the need to keep increasingly sophisticated machinery functioning and efficient continues to create demand for qualified workers.

Awards

Program Completion Certificate

Industrial Maintenance Technology

Short Term Certificates

Basic Industrial Mechanics
Millwright Technician
Plant Mechanic
Multicraft Maintenance Technician

Industry Certification

National Career Readiness Credential
NCCER CORE
NCCER Industrial Maintenance Level 1
OSHA 10-hr General Industry Safety/Health

Program Contact

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Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	12
Program Completion	4 semester	48

Required Program Courses

Course	Title	Cr. Hrs.
INT100	Math for Industrial Technicians	3
INT101	DC Fundamentals	3
INT103	AC Fundamentals	3
INT105	Introduction to Process Technology	3
INT106	Elements of Industrial Mechanics	3
INT109	Components of Material Handling	3
INT112	Ind. Maintenance Safety Procedures	3
INT113	Industrial Motor Control I	3
INT117	Principles of Industrial Mechanics	3
INT118	Fund. of Ind. Pneumatics/ Hydraulics	3
INT121	Industrial Hydraulics Troubleshooting	3
INT127	Principles Ind. Pump/Piping Systems	3
INT134	Principles Ind. Maintenance Welding	3
INT161	Blueprint Reading/Ind. Technicians	3
INT184	Intro to PLCs	3
INT253	Industrial Robotics	3

Elective Course

Course	Title	Cr. Hrs.
INT110	Automated Material Handling	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Industrial Maintenance - Emphasis in Basic Industrial Mechanics
Short Term Certificate

INT100	Math for Industrial Technicians	3
INT103	AC Fundamentals	3
INT106	Elements of Industrials Mechanics	3
INT112	Ind. Maintenance Safety Procedures	3
Total Credit Hours		**12**

Industrial Maintenance
Industrial Maintenance – Emphasis in Millwright Technician
Short Term Certificate

INT101	DC Fundamentals	3
INT109	Components of Material Handling	3
INT113	Industrial Motor Control I	3
INT117	Principles of Industrial Mechanics	3
Total Credit Hours		**12**

Industrial Maintenance
Industrial Maintenance – Emphasis in Plant Mechanic
Short Term Certificate

INT105	Introduction to Process Technology	3
INT118	Fund. of Ind. Pneumatics/ Hydraulics	3
INT121	Industrial Hydraulics Troubleshooting	3
INT127	Principles Ind. Pump/Piping Systems	3
Total Credit Hours		**12**

Industrial Maintenance
Industrial Maintenance – Emphasis in Multicraft Maintenance Technician
Short Term Certificate

INT134	Principles Ind. Maintenance Welding	3
INT161	Blueprint Reading/Ind. Technicians	3
INT184	Intro to PLCs	3
INT253	Industrial Robotics	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

LOGISTICS & SUPPLY CHAIN TECHNOLOGY

Program Overview

Logistics and Supply Chain Technology (LGT) is 36-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. The program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the logistics industry.

Occupational Data[1]

Logistics is part of nearly every industry, with jobs that focus on purchasing, inventory control, storage and handling, shipping and delivery management, and transportation. Salaries vary depending on the type of work involved. According to the Bureau of Labor Statistics, in 2021 materials handlers earned around $36,860 annually, while logisticians earned an average of $77,030. Employment is projected to grow over the next decade, driven by the global economy.

Awards

Program Completion Certificate

Logistics and Supply Chain Technology

Short Term Certificates

Logistics Operations I
Logistics/Supply Chain Technology
Warehouse Operation I
Warehouse Operation II

Industry Certification

National Career Readiness Credential
MSSC Certified Logistics Associate
MSSC Certified Logistics Technician
OSHA 10-hr General Industry Safety/Health

Program Contacts

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Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	9
Program Completion	4 semesters	36

Required Program Courses

Course	Title	Cr. Hrs.
LGT106	Workplace Essentials	3
LGT108	Introduction to Logistics	3
LGT110	Warehouse Operations I	3
LGT111	Warehouse Operations II	3
LGT114	Supply Chain Fundamentals/Mgmt.	3
LGT115	Purchasing in Logistics	3
LGT120	Materials Management	3
LGT127	Logistics & Regulatory Compliance	3
LGT132	Physical Distribution Systems	3
LGT137	Warehouse and Inventory Mgmt.	3
LGT210	Quality Improvement in SCM	3
LGT271	Supply Chain Analytics	3

Elective Courses

Course	Title	Cr. Hrs.
LGT117	Survey/Automated Logistics Sys	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Logistics and Supply Chain Technology
Certificate of Completion

First Semester		
LGT106	Workplace Essentials	3
LGT108	Introduction to Logistics	3
LGT110	Warehouse Operations I	3
Second Semester		
LGT111	Warehouse Operations II	3
LGT137	Warehouse Management	3
LGT210	Quality Improvement	3
Third Semester		
LGT114	Supply Chain Fundamentals/Mgmt.	3
LGT120	Materials Management	3
LGT132	Physical Distribution Systems	3
Fourth Semester		
LGT115	Purchasing in Logistic	3
LGT127	Regulatory Compliance	3
LGT271	Supply Chain Analytics	3
Total Credit Hours		**36**

Logistics and Supply Chain Technology
Warehouse Operations I
Short Term Certificate

LGT106	Workplace Essentials	3
LGT108	Introduction to Logistics	3
LGT110	Warehouse Operations I	3
Total Credit Hours		**9**

Logistics and Supply Chain Technology
Warehouse Operations II
Short Term Certificate

LGT111	Warehouse Operations II	3
LGT137	Warehouse Management	3
LGT210	Quality Improvement	3
Total Credit Hours		**9**

Logistics and Supply Chain Technology
Logistics Operations I
Short Term Certificate

LGT114	Supply Chain Fundamentals/Mgmt.	3
LGT120	Materials Management	3
LGT132	Physical Distribution Systems	3
Total Credit Hours		**9**

Logistics and Supply Chain Technology
Logistics/Supply Chain Technology
Short Term Certificate

LGT115	Purchasing in Logistic	3
LGT127	Regulatory Compliance	3
LGT271	Supply Chain Analytics	3
Total Credit Hours		**9**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

MARINE TECHNOLOGY

Program Overview

Marine Technology (MRT) is a short-term certificate program combining classroom theory with hands-on practice in the laboratory. Students can earn stackable certificates and industry certifications. The program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of marine technology.

Occupational Data[1]

Marine technicians repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines. According to the Bureau of Labor Statistics the median annual wage for marine technicians was $46,660 in 2021.

Awards

Short Term Certificates
Basic Marine Systems
Marine Technology

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contacts

Mr. Jerry Hamilton, Instructor
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Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	13

Required Program Courses

Course	Title	Cr. Hrs.
MRT101	Marine Engines & Drives	3
MRT108	Maine Rigging & Trailers	3
MRT111	Services Operations/Customer Svc	3
MRT114	Fuel & Lubrication Systems	3
MRT124	Electrical systems & Diagnostics	4
MRT175	Basic Hydraulics	4
MRT200	Marine Engines & Outboard Drives	3
MRT220	Marine Engines & Stern Drives	3

Marine Technology
Basic Marine Systems
Short Term Certificate

MRT101	Marine Engines & Drives	3
MRT114	Fuel & Lubrication Systems	3
MRT175	Basic Hydraulics	4
MRT200	Marine Engines & Outboard Drives	3
Total Credit Hours		**13**

Marine Technology
Marine Technology
Short Term Certificate

MRT108	Marine Rigging & Trailers	3
MRT111	Services Operations/Customer Svc	3
MRT124	Electrical systems & Diagnostics	4
MRT220	Marine Engines & Stern Drives	3
Total Credit Hours		**13**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

OFFICE ADMINISTRATION

Program Overview

Office Administration is a 42-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of office administration.

Occupational Data[1]

Office administration professionals typically perform clerical and administrative duties, including organizing files, preparing documents, scheduling appointments, and supporting other staff. They need strong communication and organizational skills and should be proficient with computers. According to the Bureau of Labor Statistics, the medial annual wage for administrative assistants was $39,680 in 2021. Those working in the legal and medical profession are compensated at a higher rate. Employment in this field is projected to decline over the coming decade, with most job openings the result of the need to replace workers who leave the occupation.

Awards

Program Completion Certificate
Office Administration

Short Term Certificate
Bookkeeping Clerk
Clerk Typist
General Clerk

Industry Certification

Microsoft Office Specialist
National Career Readiness Credential

Program Contact

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334-514-8149
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Estimated Program Length

Award	Length	Cr. Hrs.
Short Term Certificate	1 semester	9
Program Completion	4 semesters	42

Required Program Courses

Course	Title	Cr. Hrs.
SET101	Beginning Keyboarding	3
SET104	Advanced Keyboarding	3
SET125	Basic Word Processing	3
SET126	Advanced Word Processing	3
SET133	Business Communications	3
SET134	Career and Professional Development	3
SET135	Financial Record Keeping	3
SET138	Records/Information Management	3
SET218	Office Procedures	3
SET230	Computerized Desktop Publishing	3
SET231	Office Applications	3
SET232	The Computerized Office	3
SET243	Spreadsheet Applications	3
SET244	Database Concepts	3
SET245	Data Entry	3
SET246	Office Graphics and Presentations	3

Electives may be offered at various times to develop a student's personal educational goals or for other instructional purposes.

Office Administration
Program Completion Certificate

First Semester		
SET101	Beginning Keyboarding	3
SET125	Basic Word Processing	3
SET134	Career/Professional Development	3
Second Semester		
SET104	Advanced Keyboarding	3
SET135	Financial Recordkeeping	3
SET243	Spreadsheet Applications	3
Third Semester		
SET126	Advanced Word Processing	3
SET133	Business Communications	3
SET218	Office Procedures	3
SET245	Data Entry	3
Fourth Semester		
SET138	Records/Information Management	3
SET230	Computerized Desktop Publishing	3
SET244	Database Concepts	3
SET246	Office Graphics and Presentations	3
Total Credit Hours		**42**

Office Administration
Clerk Typist
Short Term Certificate

SET101	Beginning Keyboarding	3
SET125	Basic Word Processing	3
SET134	Career/Professional Development	3
Total Credit Hours		**9**

Office Administration
Bookkeeping Clerk
Short Term Certificate

SET104	Advanced Keyboarding	3
SET135	Financial Recordkeeping	3
SET243	Spreadsheet Applications	3
Total Credit Hours		**9**

Office Administration
General Clerk
Short Term Certificate

SET126	Advanced Word Processing	3
SET133	Business Communications	3
SET218	Office Procedures	3
SET245	Data Entry	3
Total Credit Hours		**12**

Office Administration
Record Management Clerk
Short Term Certificate

SET138	Records/Information Management	3
SET230	Computerized Desktop Publishing	3
SET244	Database Concepts	3
SET246	Office Graphics and Presentations	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

PLUMBING

Program Overview

Plumbing (PLB) is a 48-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. This program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the plumbing industry.

Occupational Data[1]

Plumbers install and repair pipes that carry liquids or gases to, from, and within businesses, homes, and factories. Most states and localities require plumbers to be licensed. According to the Bureau of Labor Statistics, the median annual wage for plumbers was $59,770 in 2021. Employment is projected to grow five percent from 2020-2030. New construction, building maintenance and repair will drive the demand for skilled workers

Awards

Program Completion Certificate

Plumbing

Short Term Certificate

Basic Pipe Joining Technique
R/C Water, Drain Waste & Vent System
Plumbing Repair System

Industry Certification

AL Plumbers & Gas Fitters Journeyman Cert
National Career Readiness Credential
NCCER CORE
NCCER Plumbing Level 1
OSHA 10-hr General Industry Safety/Health

Program Contacts

Mr. John Thompson, Instructor
Draper Instructional Service Center
334-514-3585
john.thompson@istc.edu

Estimated Program Length

Course	Title	Cr. Hrs.
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hrs.
PLB111	Introduction to Plumbing	3
PLB112	Plumbing Applications	3
PLB113	Pipe & Fittings	3
PLB114	Joining Pipes & Fittings	3
PLB115	Pressure/Non-Pressure Systems	3
PLB116	Pressure/Non-Pressure Sys Apps.	3
PLB117	Plumbing Codes	3
PLB118	Code Applications	3
PLB119	Fund/Gas Piping Sys for Heating	3
PLB122	Special Projects: Gas Fitting Code	3
PLB211	Plumbing Repair and Installation	3
PLB212	Plumbing Repair and Install Lab	3
PLB213	Process Piping	3
PLB214	Process Piping Applications	3
PLB217	Pumps and Compressors	3
PLB218	Pumps & Compressors Applications	3

Elective Courses

Course	Title	Cr. Hrs.
PLB120	Special Project: Plumbing Code I	1
PLB121	Special Projects: Plumbing Code II	1

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Plumbing
Program Completion Certificate

First Semester

PLB111	Introduction to Plumbing	3
PLB112	Plumbing Applications	3
PLB113	Pipes & Fittings	3
PLB114	Joining Pipes & Fittings	3

Second Semester

PLB115	Pressure/Non-Pressure Systems	3
PLB116	Pressure/Non-Pressure System Apps	3
PLB117	Plumbing Codes	3
PLB118	Code Applications	3

Third Semester

PLB211	Plumbing Repair and Installation	3
PLB212	Plumbing Repair and Install Lab	3
PLB217	Pumps & Compressors	3
PLB218	Pumps & Compressors Applications	3

Fourth Semester

PLB119	Fund/Gas Piping Systems for Heating	3
PLB122	Special Project: Gas Code	3
PLB213	Process Piping	3
PLB214	Process Piping Applications	3
Total Credit Hours		**48**

Plumbing
Basic Pipe Joining Techniques
Short Term Certificate

PLB111	Introduction to Plumbing	3
PLB112	Plumbing Applications	3
PLB113	Pipes & Fittings	3
PLB114	Joining Pipes & Fittings	3
Total Credit Hours		**12**

Plumbing
Residential/Commercial-Water, Drain Waste & Vent Systems
Short Term Certificate

PLB115	Pressure/Non-Pressure Systems	3
PLB116	Pressure/Non-Pressure System Apps	3
PLB117	Plumbing Codes	3
PLB118	Code Applications	3
Total Credit Hours		**12**

Plumbing
Plumbing Repair Systems
Short Term Certificate

PLB211	Plumbing Repair and Installation	3
PLB212	Plumbing Repair and Install Lab	3
PLB217	Pumps & Compressors	3
PLB218	Pumps & Compressors Applications	3
Total Credit Hours		**12**

Plumbing
Gas, Piping and Code
Short Term Certificate

PLB119	Fund/Gas Piping Systems for Heating	3
PLB122	Special Project: Gas Code	3
PLB213	Process Piping	3
PLB214	Process Piping Applications	3
Total Credit Hours		**12**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*

WELDING

Program Overview

Welding (WDT) is a 48-semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the completion of the program include all required career technical courses. Students can also earn stackable short-term certificates and industry certifications. The program is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the welding profession.

Occupational Data[1]

Welders use hand-held or remotely controlled equipment to join or cut metal parts, and to fill holes, indentations, or seams in metal products.

According to the Bureau of Labor Statistics, the median annual wage for welders was $47,010 in 2021, and employment is projected to grow about eight percent from 2020-2030.

Awards

Program Completion Certificate

Welding

Short Term Certificate

Construction Welding
Consumable Welding
Industrial Welding
Welding Certification w/ Pipe Cert.

Industry Certification

National Career Readiness Credential
OSHA 10-hr General Industry Safety/Health

Program Contacts

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Mr. Billy Wesson, Instructor
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billy.wesson@istc.edu

Estimated Program Length

Course	Title	Cr. Hrs.
Short Term Certificate	1 semester	12
Program Completion	4 semesters	48

Required Program Courses

Course	Title	Cr. Hrs.
WDT108	SMAW Fillet/OFC	3
WDT109	SMAW Fillet/PAC/CAC	3
WDT110	Industrial Blueprint Reading	3
WDT119	GMA/Flux Cored Arc Welding	3
WDT120	SMAW Groove	3
WDT122	SMAW Fillet/OFC Lab	3
WDT123	SMAW Fillet/PAC/CAC Lab	3
WDT124	GMAW/Flux Cored Arc Wdg Lab	3
WDT125	SMAW Grooves Lab	3
WDT157	Consumable Welding Processes	3
WDT158	Consumable Welding Processes Lab	3
WDT218	Certification	3
WDT223	Blueprint Reading for Fabrication	3
WDT228	GTAW	3
WDT258	Certification Lab	3
WDT268	GTAW Lab	3

Elective Courses

Course	Title	Cr. Hrs.
WDT180	Special Topics	3
WDT181	Special Topics	3
WDT219	Welding Inspection and Testing	3
WDT257	SMAW Carbon Pipe Lab	3
WDT280	Special Topics	3
WDT281	Special Topics	3

Electives may be offered to meet a student's personal educational goals or for instructional purposes.

Welding
Program Completion Certificate

First Semester		
Construction Welding		
Short Term Certificate		
WDT108	SMAW Fillet/OFC	3
WDT109	SMAW Fillet/PAC/CAC	3
WDT122	SMAW Fillet/OFC Lab	3
WDT123	SMAW Fillet/PAC/CAC Lab	3
Second Semester		
Consumable Welding		
Short Term Certificate		
WDT119	GMA/Flux Cored Arc Welding	3
WDT124	GMA/Flux Cored Arc Welding Lab	3
WDT157	Consumable Welding Processes	3
WDT158	Consumable Welding Processes Lab	3
Third Semester		
Industrial Welding		
Short Term Certificate		
WDT110	Industrial Blueprint Reading	3
WDT120	Shielded Metal Arc Welding Grooves	3
WDT125	SMAW Groove Lab	3
WDT223	Blueprint Reading for Fabrication	3
Fourth Semester		
Welding Certification w/Pipe Cert.		
Short Term Certificate		
WDT218	Certification	3
WDT228	Gas Tungsten Arc Welding	3
WDT258	Certification Lab	3
WDT268	Gas Tungsten Arc Lab	3
Total Credit Hours		**48**

[1] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handboo*

WORKFORCE ACADEMY TRAINING (WAT)

Program	Location(s)
Barbering	Donaldson Correctional Facility
Carpentry	Alabama Therapeutic Education Facility Bibb Correctional Facility Limestone Correctional Facility
Cosmetology	Alabama Therapeutic Education Facility
Commercial Truck Driving	Main Campus North Alabama Community-Based Facility Thomasville Day Reporting Center
Electrical Technology	Bibb Correctional Facility Donaldson Correctional Facility Limestone Correctional Facility Thomasville Day Reporting Center
Horticulture	Limestone Correctional Facility
HVAC	Alabama Therapeutic Education Facility Bibb Correctional Facility
Industrial Maintenance Technology	Limestone Correctional Facility
Logistics and Supply Chain Technology	Limestone Correctional Facility
Plumbing	Alabama Therapeutic Education Facility Bibb Correctional Facility
Welding	Alabama Therapeutic Education Facility Limestone Correctional Facility Thomasville Day Reporting Center

COURSE DESCRIPTIONS

Automotive Body Repair

ABR111 Non-Structural Repair (1/2/3)
Prerequisite: As required by program.
Students are introduced to basic principles of non-structural panel repair. Topics include shop safety, identification and use of hand/power tools, sheet metal repairs, and materials. Upon completion, students should be able to perform basic sheet metal repairs.

ABR114 Non-Structural Panel Replacement (1/2/3)
Prerequisite: As required by program.
Students are introduced to the principles of non-structural panel replacement. Topics include replacement and alignment of bolt-on panels, full and partial panel replacement procedures, and attachment methods.

ABR 122 Surface Preparation (1/2/3)
Prerequisite: As required by program.
This course introduces students to methods of surface preparation for vehicle refinishing. Topics include sanding techniques, metal treatment, selection and use of undercoats, and proper masking procedures.

ABR123 Paint Applications & Equipment (1/2/3)
Prerequisite: As required by program.
This course introduces students to methods of paint application and equipment used for vehicular refinishing. Topics include spray gun and related equipment use, paint mixing, matching and applying the final topcoat.

ABR151 Safety & Environmental Practices (1/2/3)
Prerequisite: As required by program.
This course is designed to instruct students in safe work practices. Topics include OSHA requirements, and EPA regulations as well as state and local laws. Upon completion, students should be knowledgeable in shop safety and environmental regulations. CORE

ABR154 Automotive Glass and Trim (1/2/3)
Prerequisite: As required by program.
This course is a study of automotive glass and trim. Emphasis is placed on removal and replacement of structural and nonstructural glass and automotive trim. Upon completion, students should be able to remove and replace automotive trim and glass.

ABR156 Automotive Cutting and Welding (1/2/3)
Prerequisite: As required by program.
Students are introduced to the various automotive cutting and welding processes. Emphasis is placed on safety, plasma arc, oxy-acetylene cutting, resistance type spot welding, and Metal Inert Gas (MIG) welding. Upon completion, students should be able to safely perform automotive cutting and welding procedures.

ABR157 Automotive Plastic Repairs (1/2/3)
Prerequisite: As required by program.
This course provides instruction in automotive plastic repairs. Topics include plastic welding (airless, hot and chemical), use of flexible repair fillers, identification of types of plastics, and determining the correct repair procedures for each. Upon completion, students should be able to correctly identify and repair the different types of automotive plastics.

ABR181 Special Topics in Auto Body (0/3/3)
Prerequisite: As required by program.
The courses are guided independent studies in special projects to give the student additional training in a specific area selected by the instructor. Emphasis is placed on individual student needs to improve or expand skills. Upon completion, students should be able to demonstrate skills to meet specific needs.

ABR182 Special Topics in Auto Body (0/3/3)
Prerequisite: As required by program.
The courses are guided independent studies in special projects to give the student additional training in a specific area selected by the instructor. Emphasis is placed on individual student needs to improve or expand skills. Upon completion, students should be able to demonstrate skills to meet specific needs.

ABR213 Automotive Structural Analysis (1/2/3)
Prerequisite: As required by program.
Students learn methods of determining structural misalignment. Topics include methods of inspection, types of measuring equipment, data sheets, and identifying types of structural damage.

ABR214 Automotive Structural Repair (1/2/3)
Prerequisite: As required by program.
This course provides instruction in the correction of structural damage. Topics include types and use of alignment equipment, anchoring and pulling methods, and repair/replacement of structural components

ABR223 Automotive Mechanical Components (1/2/3)
Prerequisite: As required by program.
This course provides instruction in collision related mechanical repairs. Emphasis is placed on diagnosis and repairs to drive train, steering/suspension components and other mechanical repair.

ABR224 Automotive Electrical Components (1/2/3)
Prerequisite: As required by program.
This course provides instruction in collision related electrical repairs and various restraints systems, including seat belts, seat belt tensioners, and airbag. Topics include basic DC theory, types of diagnostic equipment, circuit protection, wire repair, use of wiring diagrams, airbag modules, and impact sensors.

ABR255 Steering and Suspension (1/2/3)
Prerequisite: As required by program.
This course introduces students to the various types of suspension and steering systems used in the automotive industry. Emphasis is placed on system component, suspension angles and effect of body/frame alignment on these components and angles.

ABR258 Heating & AC in Collision Repair (1/2/3)
Prerequisite: As required by program.
This course is a study of automotive air conditioning, heating, and cooling systems. Topics include automotive air conditioning, heating and cooling systems theory, component replacement and system service.

ABR261 Restraint Systems (1/2/3)
Prerequisite: As required by program.
Both the function and design of various restraints and passive restraint systems, including seat belts, seat belt tensioners, and airbags, will be discussed. Topics include airbag modules and impact sensors for both front and side air bag systems. Students learn about using service manuals, flow charts, and wiring diagrams during the diagnosis and repair process.

ABR265 Paint Defects and Final Repair (1/2/3)
Prerequisite: As required by program.
This course introduces students to methods of identifying paint defects, causes, cures, and final detailing. Students learn to troubleshoot and correct paint imperfections.

ABR266 Aluminum Welding in Collision Repair (1/2/3)
Prerequisite: As required by program.
This course covers the principles and techniques of aluminum GMA (MIG) welding. Students learn to set up and tune a welding machine, address safety issues, perform proper welding techniques, prepare metal surfaces, and identify and correct weld defects.

ABR269 Estimating and Damage Analysis (1/2/3)
Prerequisite: As required by program.
This course introduces the students to the principles of collision/damage estimation. Topics include cost and time estimations, determinations of repair or replacement of parts, and whether to use new, used, or aftermarket parts. Upon completion of this course, students should be able to provide a handwritten or computerized damage report/ estimate.

ABR281 Special Topics in Auto Body (0/3/3)
Prerequisite: As required by program.
This course is guided independent study in special projects to give the student additional training in a specific area selected by the instructor. Emphasis is placed on individual student needs to improve or expand skills. Upon course completion, students should be able to demonstrate skills to meet specific needs.

Automotive Mechanics

AUM101 Fundamentals/Automotive Technology (1/2/3)
Prerequisite: As required by program.
This course provides basic instruction in fundamentals of automotive technology. CORE.

AUM 112 Electrical Fundamentals (1/2/3)
Prerequisite: As required by program.
This course introduces the principles and laws of electricity. Emphasis is placed on diagrams, test equipment, and identifying series, parallel and series-parallel circuits. Upon completion, students should be able to calculate, build, and measure circuits. CORE

AUM 121 Braking Systems (1/2/3)
Prerequisite: As required by program.
This course provides instruction in automotive techno-logy or auto mechanics. Emphasis is placed on the practical application of brakes. ABR 223 Automotive Mechanical Components is a suitable substitute for this course. CORE

AUM 122 Steering and Suspension (1/2/3)
Prerequisite: As required by program.
This course provides instruction in automotive techno-logy or auto mechanics. Emphasis is placed on the practical application of steering and suspension. CORE

AUM 124 Automotive Engines (1/2/3)
Prerequisite: As required by program.
This course provides instruction on the operation, design, and superficial repair of automotive engines. Emphasis is placed on understanding the four stroke cycle, intake and exhaust manifolds and related parts, engine mechanical timing components, engine cooling and lubrication system principles and repairs, and basic fuel and ignition operation. CORE

AUM 130 Drive Train and Axles (1/2/3)
Prerequisite: As required by program.
This course provides basic instruction in automotive drive trains and axles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and drivability. ABR223 Automotive Mechanical Components may be substituted for this course. CORE.

AUM133 Motor Vehicle Air Conditioning (1/2/3)
Prerequisite: As required by program.
This course provides basic instruction in theory, operation and repair of automotive heating and air conditioning systems. Emphasis is placed on the understanding and repair of vehicle air conditioning and heating systems, including but not limited to air management, electrical and vacuum controls, refrigerant recovery, and component replacement. ABR 258-Heating and AC in Collision Repair is a suitable substitute for this course.

AUM162 Electrical and Electronic Systems (1/2/3)
Prerequisite: As required by program.
This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on trouble-shooting and repair of battery, starting, charging, and lighting systems, subsystems, and components. CORE

AUM 182 Special Topics (0/2/2)
Prerequisite: As required by program.
This course is designed to allow the student to specialize in a particular area of study with minimum instruction in automotive mechanics' applications and with evaluation at the instruction's discretion. Emphasis is placed on a topic/project that the student is interested in and may include any area in automotive mechanics. Upon completion, students should be able to work with minimum instruction and execute the necessary techniques to finish a live work project of their choice.

AUM212 Adv. Electrical/Electronic Systems (1/2/3)
Prerequisite: As required by program.
This course provides instruction in advanced auto-motive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of advanced electrical and electrical and electronic systems, subsystems and components.

AUM220 Advanced Automotive Engines (1/2/3)
Prerequisite: As required by program.
This course provides in depth instruction concerning internal engine diagnosis, overhaul and repair, including but not necessarily limited to the replacement of timing chains, belts, and gears, as well as the replacement or reconditioning of valve train components as well as replacement of pistons, connecting rods, piston rings, bearings, lubrication system components, gaskets, and oil seals.

AUM224 Manual Transmissions/Transaxle (1/2/3)
Prerequisite: As required by program.
This course covers basic instruction in manual transmissions and transaxles. Emphasis is placed on understanding and application of basic internal and external operation relating to proper operation and drivability.

AUM230 Auto Transmissions/Transaxle (1/2/3)
Prerequisite: As required by program.
This course provides basic instruction in automatic transmissions and transaxles. Emphasis is placed on the comprehension of principles and power flow of automatic transmissions and repairing or replacing internal and external components. CORE.

AUM239 Engine Performance (1/2/3)
Prerequisite: As required by program.
This course provides basic instruction in engine performance with emphasis on fuel and ignition systems relating to engine operation. CORE

AUM244 Engine Performance and Diagnostics (1/2/3)
Prerequisite: As required by program.
This course provides advanced instruction in engine performance. Emphasis is placed on engine management and computer controls of ignition, fuel, and emissions systems relating to engine performance and drive ability.

AUM246 Automotive Emissions (1/2/3)
Prerequisite: As required by program.
This is an introductory course in automotive emission systems. Emphasis is placed on troubleshooting and repair of systems, subsystems and components.

AUM281 Special Topics (0/3/3)
Prerequisite: As required by program.
This course is designed to allow the student to specialize in a particular area of study with minimum instruction in automotive mechanics' applications and with evaluation at the instruction's discretion. Emphasis is placed on a topic/project that the student is interested in and may include any area in automotive mechanics. Upon completion, students should be able to work with minimum instruction and execute the necessary techniques to finish a live work project of their choice.

Barbering

BAR109 Bacteriology and Sanitation (3/0/3)
Prerequisite: As required by program.
This course provides the theory of bacteriology and sanitation. Topics include the types of bacteria and sanitation procedures, and razor shaving. Upon completion, the student should be able to identify types of bacteria and methods of sanitation.

BAR110 Orientation to Barbering (3/0/3)
Prerequisite: As required by program.
This course provides an orientation to professional barber styling. Topics include professional image, basic fundamentals, and the history of barber styling. Upon completion, student should be able to identify core concepts of the profession.

BAR111 Introduction to Barbering Lab (0/3/3)
Prerequisite: As required by program.
This course provides practical application of barber-styling fundamentals. Emphasis is placed on safety, infection control, the use and care of implements, treatment of hair, and razor shaving. Upon completion, the student will demonstrate proper infection control, hair care, and use of implements. CORE

BAR 112 Science of Barbering (3/0/3)
Prerequisite: As required by program.
This course introduces the student to the basic science of barber-styling. Topics include anatomy/physiology, disorders and treatments of the skin, scalp, and hair, and theory of facial and scalp massage. Upon completion, the student should be familiar with the anatomical structures, as well as disorders and treatments of the skin, scalp, and hair. CORE

BAR 113 Fundamentals of Barbering Applications (0/3/3)
Prerequisite: As required by program.
This course provides practical application of barber fundamentals learned in earlier courses. Emphasis is placed on safety, facial massage, treatment of hair and scalp proper use and care of implements, shampooing and haircutting, and razor shaving. Upon completion, the student should be able to perform fundamental barbering techniques with limited supervision. CORE

BAR 114 Barber-Styling Lab (0/3/3)
Prerequisite: As required by program.
This course provides students with the opportunity to demonstrate skills in hair care, hair cutting, and facial massage. Emphasis is placed on safety and infection control.

BAR115 Cutting and Styling Techniques (0/3/3)
Prerequisite: As required by program.
This course provides practical experience in basic scissor and clipper haircutting. Upon completion, the student will be able to cut and style client's hair demonstrating correct scissor and clipper cutting and styling techniques.

BAR120 Properties of Chemistry (3/0/3)
Prerequisite: As required by program.
This course provides the student with basic knowledge of chemicals used in barber styling. Topics include the changes produced in the hair and skin through exposure to chemicals, electricity, and special light spectrums. Upon completion, the student should understand the proper use of implements and chemicals to treat hair and skin.

BAR121 Chemical Hair Processing (0/3/3)
Prerequisite: As required by program.
This course provides students with opportunities to apply the use of chemicals to alter the appearance of hair. Emphasis is placed on the use of chemicals to relax, wave, and soft curl the hair. Upon completion, students will be competent in the use of chemicals to produce desired structure changes to the hair.

BAR 130 Marketing & Business Management (3/0/3)
Prerequisite: As required by program.
This course provides the student with marketing and management skills that are essential for successful salon management. Topics include first aid, job search, bookkeeping, selling techniques, shop floor plans, shop location, and legal regulations. Upon completion, the student should be aware of marketing and business management requirements for a successful salon.

BAR 132 Styling and Design (3/0/3)
Prerequisite: As required by program.
This course introduces the student to the art of hair style and design. Topics include the selection of styles to create a mood or complement facial features as well as hair replacement and hair pieces. Upon completion, the student should know the principles of style and design.

BAR143 State Board Review (1/2/3)
Prerequisite: As required by program.
Students are provided a complete review of all written and practical procedures in barbering and state board requirements. Upon completion students should be able to demonstrate the practical skills necessary to meet the requirements of state board certification and employment.

BAR 185 Special Topics in Barbering (3/0/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the barbering profession. Student learning outcomes are developed to support specific student needs..

BAR 187 Special Topics in Barbering (0/3/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the barbering industry. Emphasis is placed on meeting students' needs.

Cabinetmaking

CAB101 Introduction to Cabinetmaking (1/2/3)
Prerequisite: As required by program.
This is a beginning woodworking course, which deals with basic materials, and processes. Topics include basic safety procedures while in the Cabinet shop, an introduction to the safe use of tools and equipment, basic measurement principles, wood products, cutting, and fastening. Upon course completion, students should be able to safely inspect and use shop equipment, measure, mark, and perform various types of cuts, and assemble a specified project. CORE

CAB102 Intro to Lumber & Wood Products (2/1/3)
Prerequisite: As required by program.

This is an introductory course to lumber, grades, sizes, characteristics and uses. Topics include the natural properties of trees, identification of various types of wood, the milling process, various defects found in wood, and how it is manufactured. Upon completion the students should be knowledgeable in the use of wood and wood products for the production of cabinets and fine furniture. CORE

CAB103 Sizes, Dimensions and Joints (1/2/3)
Prerequisite: As required by program.
This course includes the study of cutting lumber to dimensions and materials to size with power tools. Emphasis is on job planning and the construction of all types of joints made with hand and power tools. Upon course completion, students should be able to plan jobs, make shop drawings, job layouts and patterns. CORE

CAB104 Cabinet Shop Operations (3/0/3)
Prerequisite: As required by program.
This course covers start up and general operation of a cabinet shop. Topics include shop organization, fire safety, financing, and tool acquisition. Upon completion, students should have basic knowledge of starting a custom cabinet shop.

CAB110: Equipment Maintenance (1/2/3)
Prerequisite: As required by program.
This is an introductory course to maintaining woodworking tools and equipment. Emphasis is on equipment inspection, cleaning and lubrication, as well as removing and replacing saw blades, jointer, shaper, and planer knives. Upon course completion, students should be proficient in maintaining basic woodworking equipment. CORE

CAB140 Wood Finishing Fundamentals (1/2/3)
Prerequisite: As required by program.
This is an introductory wood finishing course. Topics include sanding, filling, staining, brushing and spraying. Upon course completion, students should be able to perform basic wood finishing procedures. CORE

CAB141 Wood Finishing (0/3/3)
Prerequisite: As required by program.
This course is a continuation of CAB 140. Emphasis is on filling, rubbing, spraying, and building up finishes. Upon course completion, students should be able to perform wood finishing procedures.

CAB181 Special Topics (0/3/3)
Prerequisite: As required by program.
This course is designed to allow the student to specialize in a particular area of study with minimum instruction in cabinetmaking application and with evaluation at the instructor's discretion. Emphasis is placed on an advanced topic that may include any woodworking project related to cabinetmaking. Upon completion, the student should be able to work with minimum instruction and execute the necessary techniques to finish a live work project.

CAB182 Special Topics (0/3/3)
Prerequisite: As required by program.
This course is designed to allow the student to specialize in a particular area of study with minimum instruction in cabinetmaking application and with evaluation at the instructor's discretion. Emphasis is placed on an advanced topic that may include any woodworking project related to cabinetmaking. Upon completion, the student should be able to work with minimum instruction and execute the necessary techniques to finish a live work project.

CAB204 Cabinetmaking and Millwork (1/2/3)
Prerequisite: As required by program.
This course focuses on all aspects of cabinet millwork and construction. Topics include casework, frame and panel components, cabinet supports, doors, drawers, and cabinet and tabletops. Upon completion students should be able to perform all functions necessary to construct basic cabinets.

CAB205 Furniture Construction (1/2/3)
Prerequisite: As required by program.
This course covers design and construction of fine furniture. Emphasis is on the development of basic furniture construction skills, such as milling, joining, building jigs and fixtures. Upon course completion, students should be able to perform basic skills necessary to construct fine furniture.

CAB206 Special Projects/Furniture Construction (0/3/3)
Prerequisite: As required by program.
This course is a continuation of the study and performance of advanced furniture projects that began in CAB 205. Emphasis is on shaping, routing and carving. Upon course completion, students should be able to perform advanced skills necessary to construct fine furniture.

CAB211 Cabinet Installation & Trim Work (1/2/3)
Prerequisite: As required by program.
This course introduces students to cabinet installation and trim work. Emphasis is placed upon cabinet shipping and handling, cabinet and countertop installation, and trim work. Upon completion of the course, students should be able to explain proper cabinet handling procedures as well as the appropriate sequence and methods of installing kitchen and bathroom cabinets and installing all appropriate trim work for the job.

CAB225 Kitchen and Bath Design (2/4/6)
Prerequisite: As required by program.
This course offers instruction in utilizing CAD for kitchen and bath design. Emphasis is placed on computer use and design requirements for kitchens and baths. Upon course completion, students should be familiar with kitchen and bath design by utilizing CAD software for this purpose.

CAB230 Estimating Costs in Cabinetmaking (3/0/3)
Prerequisite: As required by program.
This course focuses on estimating costs necessary to complete cabinetmaking projects. Emphasis is on figuring costs of materials and labor and on the use of pertinent

formulas. Upon course completion, students should be able to estimate costs of complete cabinetmaking projects.

CAB260 Woodturning I (1/2/3)
Prerequisite: As required by program.
This course focuses on turning components for fine furniture projects. Emphasis is on operation and maintenance of wood lathes and tools. Upon course completion, students should be able to turn duplicate posts and table legs.

CAB261 Wood Turning II (0/3/3)
Prerequisite: As required by program.
This course is the lab component of CAB 260. It allows for further time to turn components for fine furniture projects. Emphasis is on operation and maintenance of wood lathes and tools. Upon course completion, students should be able to turn duplicate posts and table legs.

Carpentry

CAR111 Construction Basics (3/0/3)
Prerequisite: As required by program.
This course introduces students to the opportunities in and requirements of the construction industry. Topics include economic outlook for construction, employment outlook, job opportunities, training, apprenticeship, entrepreneurship, construction tools, materials, and equipment, job safety and OSHA standards. Upon course completion, students should be able to identify the job market, types of training, knowledge of apprenticeship opportunities, construction tools, materials, equipment, and safety procedures.

CAR112 Floors, Walls and Site Prep (3/0/3)
Prerequisite: As required by program.
This course introduces the student to site preparation, floor and wall layout, and construction. Topics include methods of site preparation, measurement and leveling tools, framing, layouts, and components of wall and floor framing to include beams, girders, floor joists, sub-flooring, partitions, bracing, headers, sills, doors and corners. Upon course completion, students will be able to identify various types of wall and floor framing systems and their components, identify building lines, setbacks, and demonstrate a working knowledge of leveling applications.

CAR113 Floors, Walls and Site Prep Lab (0/3/3)
Prerequisite: As required by program.
In this course the student will engage in applications of site preparation, floor and wall layout, and construction. Emphasis is placed on following job safety procedures, the use of required tools and equipment, performing site preparation, laying out and framing a floor system, and laying out, and erecting walls. Students will use various measurement and leveling tools, identify and install beams, girders, floor joists, sub-flooring, and install various wall components such as partitions, bracing, headers, sills, doors and windows, and corners. Upon course completion, students should be able to follow proper safety procedures, identify building lines and setbacks, ensure proper site preparation, layout and frame a floor, and layout, frame and erect walls.

CAR114 Construction Basics Lab (0/3/3)
Prerequisite: As required by program.
This course provides practical and safe application of hand, portable power, stationary and pneumatic tools, use of building materials, fasteners and adhesives, and job site safety. Emphasis is placed on the safe use of hand, power, and pneumatic tools, proper selection of lumber, plywood, byproducts, nails, bolts, screws, adhesives, fasteners, construction materials, and job safety. Upon course completion, the student should be able to identify hand, power, stationary, and pneumatic tools and demonstrate their safe use; identify and properly select wood and non-wood building products, and properly use nails, fasteners and adhesives.

CAR121 Introduction to Blueprint Reading (3/0/3)
Prerequisite: As required by program.
This course introduces the students to the basic concepts of blueprint reading. Topics include scales, symbols, site plans, notations, schedules, elevations, sections, specifications, and detail drawings. Upon completion, the student should be able to identify drawings, scale various drawings, identify different types of lines, symbols, and notations, as well as use plot plans, describe easements, understand building code concepts, locate utilities, and explain various aspects of all types of plans and drawings.

CAR122 Concrete and Forming (3/0/3)
Prerequisite: As required by program.
This course introduces the student to concrete, its properties and uses, and procedures for designing concrete forms. Topics include making and pouring concrete, constructing concrete forms, reinforcement methods, finishing concrete, and job safety. Upon completion, students should be able to list safety rules for the job site, list what concrete is made of, describe how concrete forms are built, and how concrete is poured, reinforced, and finished.

CAR123 Concrete and Forming Lab (0/3/3)
Prerequisite: As required by program.
This course provides practical experience in mixing concrete, building forms, using reinforcing materials, pouring and finishing concrete, and demonstrating proper safety techniques at the job site. Emphasis is placed on job site safety, concrete forming, mixing, pouring, finishing and reinforcing. Upon completion, the student should be able to demonstrate job safety, set forms, reinforce, mix, pour and finish concrete correctly.

CAR131 Roof and Ceiling Systems (3/0/3)
Prerequisite: As required by program.

This course focuses on framing ceilings and roofs. Emphasis is placed on the various types of ceiling and roofing frames, rafters, trusses, ceiling joists, roof decking, and roofing materials. Upon completion, students should be able to explain how to frame a roof and ceiling, identify proper installation methods of roofing materials, and describe applicable safety rules.

CAR132 Interior and Exterior Finishing (1/2/3)
Prerequisite: As required by program.
This course introduces the student to interior and exterior finishing materials and techniques. Topics include trim of windows and doors, ceilings and wall molding, exterior siding, trim work, painting, and masonry finishes. Upon completion, the student should be able to identify different types of doors, windows and moldings and describe the uses of each, identify types of exterior sidings and trim, and describe the different types of paint and their proper application.

CAR133 Roof and Ceiling Systems Lab (0/3/3)
Prerequisite: As required by program.
The course provides students with practical experience in roof and ceiling layout, framing and installation. Upon completion, the student should be able to layout and frame a roof and ceiling, cut and install rafters, and joists, install trusses, cut and apply roof decking and roofing materials, and apply job site safety rules.

CAR203 Special Projects in Carpentry (0/3/3)
Prerequisite: As required by program.
This course allows the student to plan, execute, and present results of individual projects in carpentry. Emphasis is placed on enhancing skill attainment in the carpentry field. This culminating course allows students to independently apply skills attained in previous courses.

CAR214 Introduction to Cabinetry (1/2/3)
Prerequisite: As required by program.
This is an introductory cabinetry course. Emphasis is placed on design and construction of cabinetry. Upon completion, the student should be able to design and build cabinets according to specification.

CAR224 Floor, Wall and Ceiling Specialties (1/2/3)
Prerequisite: As required by program.
This course focuses on advanced interior applications for floors, walls, and ceilings. Topics may include paneling, hard wood floors, drop ceilings, acoustical ceilings, tray ceilings, and box ceilings. Upon completion the students should have a working knowledge of the specialties covered.

CAR228 Stairs, Molding and Trim (1/2/3)
Prerequisite: Determined by instructor.
This course focuses on the basics of stair design, layout, and construction. Topics also include cutting and installing stair trim and molding. Upon course completion, students should be able to layout, cut and construct stairs, and install trim and molding.

Cosmetology

COS111 Introduction to Cosmetology (3/0/3)
Prerequisite: As required by program.
This course is designed to provide students with an overview of the history and development of cosmetology and standards of professional behavior. Students receive basic information regarding principles and practices of infection control, diseases, and disorders. Additionally, students receive introductory information regarding hair design. The information presented in this course is enhanced by hands-on application performed in a controlled lab environment. Upon completion, students should be able to apply safety rules and regulations and write procedures for skills identified in this course. CORE

COS112 Introduction to Cosmetology Lab (0/3/3)
Prerequisite: As required by program.
In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, and hairstyling. Emphasis is placed on disinfection, shampooing, hair shaping, and hairstyling for various types of hair for men and women. This course offers opportunities for students to put into practice concepts learned in the theory component from COS111. CORE

COS113 Theory of Chemical Services (3/0/3)
Prerequisite: As required by program.
During this course, students learn concepts of theory of chemical services related to the chemical hair texturing. Specific topics include basics of chemistry and electricity, properties of the hair and scalp, and chemical texture services. Safety considerations are emphasized throughout this course. This course is foundational for other courses providing more detailed instruction on these topics.

COS114 Chemical Services Lab (0/3/3)
Prerequisite: As required by program.
During this course, students perform various chemical texturing activities. Emphasis is placed on cosmetologist and client safety, chemical use and handling, hair and scalp analysis, and client consulting.

COS115 Hair Coloring Theory (3/0/3)
Prerequisite: As required by program.
In this course, students learn the techniques of hair coloring and hair lightening. Emphasis is placed on color application, laws, levels and classifications of color and problem solving. Upon completion, the student will should be able to identify all classifications of hair coloring and the effects on the hair.

COS116 Hair Coloring Lab (0/3/3)
Prerequisite: As required by program.
In this course, students apply hair coloring and hair lightening techniques. Topics include consultation, hair

analysis, skin test and procedures and applications of all classifications of hair coloring and lightening. Upon completion, the student should be able to perform procedures for hair coloring and hair lightening.

COS 117 Basic Spa Techniques (3/0/3)
Prerequisite: As required by program.
This course is the study of cosmetic products, massage, skin care, and hair removal, as well as identifying the structure and function of various systems of the body. Topics include massage skin analysis, skin structure, disease and disorder, light therapy, facials, facial cosmetics, anatomy, hair removal, and nail care. Upon completion, the student will be able to state procedures for analysis, light therapy, facials, hair removal, and identify the structures, functions, disorders of the skin, and nail care.

COS118 Basic Spa Techniques Lab (0/3/3)
Prerequisite: As required by program.
This course provides practical applications related to the care of the skin and related structure. Emphasis is placed on facial treatments, product application, skin analysis, massage techniques, facial make-up, hair removal, and nail care. Upon completion, the student should be able to prepare clients, assemble sanitized materials, follow procedures for product application, recognize skin disorders, demonstrate facial massage movement, cosmetic application, and hair removal using safety and sanitary precautions, and nail care.

COS123 Cosmetology Salon Practices (0/3/3)
Prerequisite: As required by program.
This course is designed to allow students to practice all phases of cosmetology in a salon setting. Emphasis is placed on professionalism, receptionist duties, hair styling, hair shaping, chemical, and nail and skin services for clients. Upon completion, the student should be able to demonstrate professionalism and the procedures of cosmetology in a salon setting.

COS125 Career and Personal Development (3/0/3)
Prerequisite: As required by program.
This course provides the study and practice of personal development and career building. Emphasis is placed on building and retaining clientele, communications skills, customer service, continuing education, and goal setting. Upon completion, the student should be able to communicate effectively and practice methods for building and retaining clientele.

COS133 Salon Management Technology (1/2/3)
Prerequisite: As required by program.
This course is designed to develop entry-level management skills for the beauty industry. Topics include job-seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon.

COS142 Applied Chemistry for Cosmetology Lab (0/3/3)
Prerequisite: As required by program.
This course provides practical applications of the knowledge of hair and skin learned in reference to chemical reactions, as well as the chemical application to the hair and skin. Emphasis is placed on knowledge of basic chemistry, pH scale, cosmetic chemistry, and physical and chemical changes in the hair and skin structure. Upon completion, the student should be able to determine the proper chemical product for each prescribed service.

COS144 Hair Shaping and Design (1/2/3)
Prerequisite: As required by program.
In this course, students learn the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair design.

COS151 Nail Care (1/2/3)
Prerequisite: As required by program.
This course focuses on all aspects of nail care. Topics include salon conduct, professional ethics, sanitation, nail structure, manicuring, pedicuring, nail disorders, and anatomy and physiology of the arm and hand. Upon completion, the student should be able to demonstrate professional conduct, recognize nail disorders and diseases, and identify the procedures for sanitation and nail care services

COS152 Nail Care Applications (0/3/3)
Prerequisite: As required by program.
This course provides practice in all aspects of nail care. Topics include salon conduct, professional ethics, bacteriology, sanitation and safety, manicuring and pedicuring. Upon completion, the student should be able to perform nail care procedures.

COS167 State Board Review (1/2/3)
Prerequisite: As required by program.
Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to successfully complete the required State Board of Cosmetology examination and entry-level employment.

COS181 Special Topics (3/0/3)
Prerequisite: As required by program.
This course is designed to allow students to explore issues relevant to the profession of cosmeology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS182 Special Topics (0/3/3)

Prerequisite: As required by program.
This course is designed to allow students to explore issues relevant to the profession of cosmeology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

Diesel Mechanics

DEM 104 Basic Engines (1/2/3)
Prerequisite: As required by program.
This course is designed to give the student knowledge of the diesel engine components and auxiliary systems, the proper way to maintain them, and the proper procedures for testing and rebuilding components. Emphasis is placed on safety, theory of operation, inspection, and measuring and rebuilding diesel engines according to factory specifications. Upon completion students should be able to measure, diagnose problems, and repair diesel engines.

DEM 105 Preventative Maintenance (1/2/3)
Prerequisite: As required by program.
This course provides instruction on how to plan, develop and install equipment surveillance and reliability strategies. Descriptions of various maintenance techniques for specialized preventive programs are discussed and computerized parts and equipment inventories and fleet management systems software are emphasized. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

DEM111 Equipment Safety/Mech. Fundamentals (1/2/3)
Prerequisite: As required by program.
This course provides instruction in the fundamentals of vehicle operation and safety when basic service work is to be performed in the shop. Topics include service manuals, mechanical fundamentals, preventive maintenance and component adjustment. Upon completion, students should be able to demonstrate knowledge of the fundamentals of vehicle operation and safety in the shop.

DEM122 Heavy Vehicle Brakes (1/2/3)
Prerequisite: As required by program.
This course covers the theory and repair of braking systems used in medium and heavy-duty vehicles. Topics include air, hydraulic, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair braking systems on medium and heavy-duty vehicles.

DEM 123 Pneumatics and Hydraulics (1/2/3)
Prerequisite: As required by program.
This course provides instruction in the identification and repair of components found in hydraulic and pneumatic systems. Topics include schematics and symbols used in fluid power transmission and the troubleshooting of components in these systems. Upon completion, students should be able to diagnose, adjust, and repair hydraulic and pneumatic system components.

DEM124 Electronic Engine Systems (1/2/3)
Prerequisite: As required by program.
This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

DEM 125 Heavy Vehicle Drive Trains (1/2/3
Prerequisite: As required by program.
This course introduces operational principles of mechanical medium and heavy-duty vehicle transmissions. Topics include multiple counter shafts power takeoffs, slider idler clutches, friction clutches, mechanical transmission power components and hydraulics. Upon completion, students should be able to diagnose, inspect and repair mechanical transmission.

DEM126 Advanced Engines (1/2/3)
Prerequisite: As required by program.
This course provides instruction in the disassembly, inspection, and rebuilding of diesel and heavy-duty gas engines. Emphasis is placed on the manufacturer's standards and factory recommended service tools and equipment. Upon completion, students should be able to disassemble, inspect, and rebuild engines according to the manufacturer's specifications.

DEM 127 Fuel Systems (1/2/3)
Prerequisite: As required by program.
This course is designed to provide practice in troubleshooting, fault code diagnosis, information retrieval, calibration, repair and replacement of fuel injectors, nozzles, and pumps. Emphasis is placed on test equipment, component functions, and theory. Upon completion, students should be able to diagnose, service, and repair fuel systems and governors.

DEM 128 Heavy Vehicle Drive Train Lab (0/3/3)
Prerequisite: As required by program.
This lab provides reinforcement of material covered in DEM 116 or DEM 125. Students will apply the knowledge they learned on driveshaft, power take-offs, standard transmissions, fluid drives, torque converters, clutch assemblies, drive axles, and special drives through experiential learning techniques. Upon completion, students should be able to diagnose, inspect, remove, repair or replace, and install heavy vehicle drive train components.

DEM 129 Diesel Engine Lab (0/3/3)
Prerequisite: As required by program.
This lab allows the student to refine the skills required to repair diesel engines.

DEM130 Electrical/Electronic Fundamentals (1/2/3)
Prerequisite: As required by program.
This course introduces the student to basic Electrical / Electronic concepts and fundamentals. It provides the principles of electricity, magnetism, and Ohm's Law. Emphasis is placed on batteries, starting, charging, and lighting circuits, which include series, parallel, and series-parallel circuits. Troubleshooting and repair of wiring harnesses, starting motors, charging systems, and accessories are included along with the computerized monitoring of vehicle systems. Upon completion, students should be able to identify components, test systems, and repair minor electrical problems according to manufacturer's literature.

DEM135 HV Steering/Suspension Systems (1/2/3)
Prerequisite: As required by program.
This course introduces the theory and principles of medium and heavy-duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy-duty vehicles.

DEM137 Heating/AC/Refrigeration Systems (1/2/3)
Prerequisite: As required by program.
This course provides instruction in fundamentals, diagnosis, and repair of cab and cargo heating and refrigeration systems. Topics include operation theory, safety, maintenance, recycling and recovery procedures, recharging procedures, troubleshooting procedures, refrigerant leaks, and system repairs.

DEM170 Heavy Vehicle Air Brakes (1/2/3)
Prerequisite: As required by program.
This course covers the theory and repair of air braking systems used in medium and heavy-duty vehicles. Topics include air, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair air braking systems on medium and heavy-duty vehicles.

DEM181 Special Topics in Electrical (0/3/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the electrical systems of the diesel mechanics industry. Emphasis is placed on meeting student's needs.

DEM182 Special Topics in Engines (0/3/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to engines in the diesel mechanics industry. Emphasis is placed on meeting student's needs.

DEM183 Special Topics in Power Train (0/3/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the power train in the diesel mechanics industry. Emphasis is placed on meeting student's needs.

DEM184 ST HD Brakes/Steering/Suspension (0/3/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to heavy duty brakes, steering, and suspension systems in the diesel mechanics industry. Emphasis is placed on meeting student's needs.

DEM186 Special Projects in Commercial Vehicles (1/2/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the diesel mechanics industry. Emphasis is placed on meeting student's needs.

DEM191 Special Project in Diesel Mechanics (1/2/3)
Prerequisite: As required by program.
This course provides information on current trends in diesel mechanics as they relate to employment responsibilities. Topics may vary by term to reflect relevant training needs of the industry.

Electrical Technology

ELT108 DC Fundamentals (1/2/3)
Prerequisite: As required by program.
This course is designed to provide students with a working knowledge of basic direct current (DC) electrical principles. Topics include safety, basic atomic structure and theory, magnetism, conductors, insulators, use of Ohm's law to solve for voltage, current, and resistance, electrical sources, power, inductors, and capacitors. Students will perform lockout/tag out procedures, troubleshoot circuits and analyze series, parallel, and combination DC circuits using the electrical laws and basic testing of equipment to determine unknown electrical quantities. CORE

ELT109 AC Fundamentals (1/2/3)
Prerequisite: As required by program.
This course is designed to provide students with a working knowledge of basic alternating current (AC) electrical principles. Topics include basic concepts of electricity, electrical components, basic circuits, measurement instruments, the laws of alternating current, and electrical safety with lockout procedures. Hands on laboratory exercises are provided to analyze various series, parallel, and combination alternating current circuit configurations containing resistors, inductors, and capacitors. Upon course completion, students will be able to describe and explain alternating current circuit fundamentals such as RLC circuits, impedance, phase relationships, and power factors. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. CORE

ELT110 Wiring Methods (1/2/3)
Prerequisite: As required by program.
This course is a study of various tasks, wiring methods, materials, and associated NEC requirements that students

will be required to work with in residential and commercial wiring course. CORE

ELT116 Residential Wiring (4/2/6)
Prerequisite: As required by program.
This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations.

ELT117 AC/DC Machines (1/2/3)
Prerequisite: As required by program.
This course covers the theory and operation of DC motors single and three phase AC motors and the labs will reinforce this knowledge. Emphasis is placed on the various types of single and three phase motors, wiring diagrams, starting devices, and practical application in the lab. CORE

ELT118 Commercial/Industrial Wiring I (1/2/3)
Prerequisite: As required by program.
This course focuses on principles and applications of commercial and industrial wiring. Topics include electrical safety practices, and an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles. CORE

ELT 122 Advanced AC/DC Machines (2/1/3)
Prerequisite: As required by program.
This course focuses on single and three-phase motors and introduces students to DC motors. Emphasis is placed on field wiring, various types of AC and DC motors, troubleshooting procedures, and utilization of test equipment. Upon completion, students should be able to explain, wire troubleshoot and test all types of AC and DC electric motors.

ELT209 Motor Controls I (1/2/3)
Prerequisite: As required by program.
This course is a study of the construction, operating characteristics, and installation of different motor control circuits and devices. Emphasis is placed on the control of three phase AC motors. This course covers the use of motor control symbols, magnetic motor starters, running overload protection, pushbutton stations, multiple control stations, two wire control, three wire control, jogging control, sequence control, and ladder diagrams of motor control circuits. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using pushbutton stations and understand complex motor control diagrams. CORE

ELT212 Motor Control II (2/1/3)
Prerequisite: As required by program.
This course covers complex ladder diagrams of motor control circuits and the uses of different motor starting techniques. Topics include wye-delta starting, part start winding, resistor starting and electronic starting devices. Upon completion, the students should be able to understand and interpret the more complex motor control diagrams and understand the different starting techniques of electrical motors.

ELT230 Programmable Controls (4/2/6)
Prerequisite: As required by program.
This course includes fundamental principles of programmable logic controls (PLC's) including hardware, programming and program design. Emphasis is placed on hardwiring associated with PLC, different options available with most PLC's basic ladder logic programming, developing working programs, timers, counters different special functions, and designing programs from existing hardwired systems. Upon completion, students should be able to develop programs, load programs into PLC's and troubleshoot the system.

ELT241 National Electric Code (3/0/3)
Prerequisite: As required by program.
This course introduces the students to the National Electric Code and text and teaches the student how to find needed information within this manual. Emphasis is placed on locating and interpreting needed information within the NEC code manual. Upon completion, students should be able to locate, with the NEC code requirements for a specific electrical installation.

ELT242 Journeyman-Master Prep Exam (3/0/3)
Prerequisite: As required by program.
This course is designed to help prepare a student to take either the Journeyman or Master Certification Exam. Emphasis is placed on review of electrical concepts and/or principals, practice tests, and test taking procedures. Upon completion, students should be able to pass the Journeyman/Masters Certifying Exam.

ELT244 Conduit Bending and Installation (2/1/3)
Prerequisite: As required by program
This course provides students the knowledge to properly ben electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to measure, layout, and successfully bend conduit using hand, mechanical, and hydraulic benders.

ELT245 Electrical Grounding Systems (3/0/3)
Prerequisite: As required by program.
This course provides the knowledge to understand how to properly ground an electrical system. Emphasis is placed on, but not limited to the following: residential installations, commercial installations, and the function of independent grounding elements. Upon completion, the students should be able to explain and design a simple grounding system.

HVAC

ASC111 Principles of Refrigeration (1/2/3)

Prerequisite: As required by program.
This course emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should be able to identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system. CORE

ASC112 HVACR Service Procedures (1/2/3)
Prerequisite: As required by program.
This course covers system performance checks and refrigerant cycle diagnosis. Emphasis is placed on the use of refrigerant recovery/recycle units, industry codes, refrigerant coils and correct methods of charging and recovering refrigerants. Upon completion, students should be able to properly recover/recycle refrigerants and demonstrate safe, correct service procedures which comply with the no-venting laws.

ASC113 Refrigeration Piping Practices (1/2/3)
Prerequisite: As required by program.
The course introduces students to the proper installation procedures of refrigerant piping and tubing for the heating, ventilation, air conditioning and refrigeration industry. This course includes various methods of working with and joining tubing. Upon completion, students should comprehend related terminology, and be able to fabricate pipe, tubing and pipe fittings. CORE

ASC119 Fundamentals of Gas Heating Systems (1/2/3)
Prerequisite: As required by program.
This course provides instruction on general service and installation for common gas furnace system components. Upon completion, students will be able to install and service gas furnaces in a wide range of applications.

ASC120 Fundamentals of Electric Heat Systems (1/2/3)
Prerequisite: As required by program.
This course covers the fundamentals of electric furnace systems. Emphasis is placed on components, general service procedures, and basic installation. On completion, students should be able to install and service electric furnace, heat pumps, and solar and hydronic systems.

ASC121 Principles of Electricity for HVACR (1/2/3)
Prerequisite: As required by program.
This course is designed to provide the student with the basic knowledge of electrical theory and circuitry as it pertains to air conditioning and refrigeration. This course emphasizes safety, definitions, symbols, laws, circuits, and electrical test instruments. Upon completion students should understand and be able to apply the basic principles of HVACR circuits and circuit components. CORE

ASC122 HVACR Electric Circuits (1/2/3)
Prerequisite: As required by program.
This course introduces the student to electrical circuits and diagrams. Electrical symbols and basic wiring diagrams are constructed in this course. Upon completion, students should understand standard wiring diagrams and symbols and be able to construct various types of electrical circuits. CORE

ASC123 HVAC/R Electrical Components (1/2/3)
Prerequisite: As required by program.
This course introduces students to electrical components and controls. Emphasis is placed on the operations of motors, relays, contactors, starters, and other HVAC electrical components. Upon completion, students should be able to install electrical components and determine their proper operation. CORE

ASC125 Fund. of Gas/Electric Heat Systems (2/4/6)
Prerequisite: As required by program.
This course provides instruction on general service and installation for common gas and electrical heating systems. Emphasis is placed on components, general service procedures, and basic installation. Upon completion, students will be able to install and service gas and electrical heating systems in a wide range of applications. Note: This course is a suitable substitution for ASC 119 and 120.

ASC127 HVACR Electric Motors (1/2/3)
Prerequisite: As required by program.
This course covers the basic maintenance of electric motors used in HVAC/R systems. Topics include types of motors, motor operations, motor installation, and troubleshooting motors. Upon completion student should be able to install and service HVAC/R electric motors.

ASC128 Heat Load Calculations (3/0/3)
Prerequisite: As required by program.
This course focuses on heat flow into and out of building structures. Emphasis is placed on determining heat gain/ heat loss of a given structure. Upon completion, students should be able to calculate heat load and determine HVAC equipment size requirements.

ASC132 Residential Air Conditioning (1/2/3)
Prerequisite: As required by program.
This course introduces students to residential air conditioning systems. Emphasis is placed on the operation, service and repair of residential air conditioning systems. Upon completion, students should be able to service and repair residential air conditioning systems.

ASC138 Customer Relations in HVAC (3/0/3)
Prerequisite: As required by program.
This course covers the basic aspects of customer relations needed by the HVAC technician. Topics include employability skills associated with job performance, record keeping, service invoices, certification requirement, local ordinances, and business ethics. Upon completion, students should be able to get a job and keep it.

ASC147 Refrigerant Transition/Recovery Theory (3/0/3)
Prerequisite: As required by program.
This course is EPA-approved and covers material relating to the requirements necessary for type I, II, and III universal certification. Upon completion, students should be prepared to take the EPA 608 certification examination.

ASC152 Heat Pump Systems (2/4/6)
Prerequisite: As required by program.
This course provides instruction on the operation and servicing of heat pump systems. Emphasis is placed on theory and application of refrigerants for heat pump systems and on basic service of components. Students should possess a strong foundation of electrical principles and theory. Upon completion students will be able to install and service heat pumps.

ASC181 Special Topics in AC/Refrigeration I (3/0/3)
Prerequisite: As required by program.
This course provides specialized instruction in various areas related to the air conditioning and refrigeration industry.

ASC182 Special Topics in AC/Refrigeration II (0/3/3)
Prerequisite: As required by program.
This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry.

ASC185 Special Topics in AC/Refrigeration (2/0/2)
Prerequisite: As required by program.
This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry.

ASC210 Troubleshooting HVACR systems (1/2/3)
Prerequisite: As required by program.
This course provides instruction in the use of various meters and gauges used in the HVACR industry. Emphasis is placed on general service procedures, system diagnosis, and corrective measure, methods of leak detection, and system evacuation, charging and performance checks. Upon completion student should be able to perform basic troubleshooting of HVAC/R.

Industrial Maintenance Technology

INT100 Mathematics for Industrial Technicians (3/0/3)
Prerequisite: As required by program
This course is designed to provide an understanding of basic mathematical concepts used in an industrial setting. Topics include the arithmetic of whole numbers, fractions, and decimals; basic ration, proportion, and percent; application problems in industrial maintenance.

INT101 DC Fundamentals (2/1/3)
Prerequisite: As required by program
This course provides an in-depth study of direct current (DC) electronic theory. Topics include atomic theory, magnetism, properties of conductors and insulators, and characteristics of series, parallel, and series-parallel circuits. Inductors and capacitors are introduced and their effects on DC circuits are examined. Students are prepared to analyze complex DC circuits, solve for unknown circuit variables and to use basic electronic test equipment. This course also provides hands on laboratory exercises to analyze, construct, test, and troubleshoot DC circuits. Emphasis is placed on the use of scientific calculator and the operation of common test equipment used to analyze and troubleshoot DC and to prove the theories taught during classroom instruction. CORE

INT103 AC Fundamentals (2/1/3)
Prerequisite: As required by program
This course provides an in-depth study of alternating current (AC) electronic theory. Students are prepared to analyze complex AC circuit configurations with resistors, capacitors, and inductors in series and parallel combinations. Topics include electrical safety and lockout procedures, specific AC theory functions such as RLC, impedance, phase relationships, and power factor. Students will be able to define terms, identify waveforms, solve complex mathematical problems, construct circuits, explain circuit characteristics, identify components, and make accurate circuit measurements using appropriate measurement instruments. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. CORE

INT105 Introduction to Process Technology (2/1/3)
Prerequisite: As required by program
This course is designed to provide students with an introduction to process control technology and various instruments used to control processes. Upon completion, students should be able to comprehend principles of process control technology and the application of various instruments used to control processes in an industrial setting.

INT106 Elements of Industrial Mechanics (2/1/3)
Prerequisite: As required by program
This course provides instruction in basic physics concepts applicable to industrial mechanics. Topics include mechanical principles with emphasis placed on power transmission and specific mechanical components. Upon course completion, students will be able to apply principles relative to mechanical tools, fasteners, basic mechanics, lubrication, bearings, packing and seals

INT109 Components of Material Handling (2/1/3)
Prerequisite: As required by program
This course focuses on the different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of the material handling process components. Emphasis is placed on

determining control limits, performing scheduled maintenance, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain and troubleshoot a simulated material handling system.

INT110 Automated Material Handling (2/1/3)
Prerequisite: As required by program
This course focuses on the automatic function and control of different modes of handling manufactured goods or products. Topics include the development of a simulated condition of control parameters with-in the material handling process, determining control limits, and performing root cause analysis. Upon completion, students should be able to write start-up and shut-down procedures, operate, monitor, and control plant material handling systems at the system wide level.

INT112 Industrial Maintenance Safety Procedures (3/0/3)
Prerequisite: As required by program
This course is an in-depth study of the health and safety practices required for maintenance of industrial production equipment. Topics include traffic, ladder, electrical, and fire safety, safe work in confined spaces, electrical and mechanical lock-out procedures, emergency procedures, OSHA regulations, MSDS Right-to-Know law, hazardous materials safety, and safety equipment use and care. Upon course completion, students will be able to implement health and safety practices in an industrial production setting.

INT113 Industrial Motor Controls I (1/2/3)
Prerequisite: As required by program
This course is a study of the construction, operating characteristics, and installation of different motor control circuits and devices. Emphasis is placed on the control of three phase AC motors. This course covers the use of motor control symbols, magnetic motor starters, running overload protection, pushbutton stations, multiple control stations, two wire control, three wire control, jogging control, sequence control, and ladder diagrams of motor control circuits. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using pushbutton stations and understand complex motor control diagrams.

INT117 Principles of Industrial Mechanics (2/1/3)
Prerequisite: As required by program
This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment. Topics include basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic trouble-shooting, repair and maintenance functions on industrial production equipment. CORE

INT118 Fund. Ind. Hydraulics/Pneumatics (2/1/3)
Prerequisite: As required by program
This course includes the fundamental concepts and theories for the safe operation of hydraulic and pneumatic systems used with industrial production equipment. Topics include the physical concepts, theories, laws, air flow characteristics, actuators, valves, accumulators, symbols, circuitry, filters, servicing safety, and preventive maintenance and the application of these concepts to perform work. Upon completion, students should be able to service and perform preventive maintenance functions on hydraulic and pneumatic systems. CORE

INT121 Industrial Hydraulics Troubleshooting (1/2/3)
Prerequisite: As required by program
This course provides instruction in maintenance and troubleshooting procedures needed for safe and proper repair of hydraulic systems used with industrial production equipment. Topics include maintenance and trouble-shooting procedures, hydraulic system maintenance and troubleshooting techniques, effects of heat, leakage, and contamination on components and system operation, component maintenance and troubleshooting, reading and interpreting system diagrams, and design and troubleshooting of hydraulic circuits and systems. Upon course completion, students will demonstrate the ability to troubleshoot and repair industrial hydraulic systems.

INT127 Principles of Ind. Pump/Piping Systems (2/1/3)
Prerequisite: As required by program
This course provides instruction in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation, maintenance and troubleshooting, and piping systems, and their installation. Upon course completion, students will be able to install, maintain, and troubleshoot industrial pumps and piping systems.

INT134 Principles of Ind. Maintenance Welding (2/1/3)
Prerequisite: As required by program
This course provides instruction in the fundamentals of acetylene cutting and the basics of welding needed for the maintenance and repair of industrial production equipment. Topics include oxy-fuel safety, choice of cutting equipment, proper cutting angles, equipment setup, cutting plate and pipe, hand tools, types of metal welding machines, rod and welding joints, and common welding passes and beads. Upon course completion, students will demonstrate the ability to perform metal welding and cutting techniques necessary for repairing and maintaining industrial equipment. CORE

INT161 Blueprint Reading/Ind. Technicians (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student a comprehensive understanding of blueprint reading. Topics include identifying types of lines and symbols used in mechanical drawings, recognition and interpretation of various types of views, tolerance, and dimensions.

INT184 Intro to Programmable Logic Controllers (2/1/3)
Prerequisite: As required by program
This course introduces programmable logic controllers. Emphasis is placed on, but not limited to, the following: PLC hardware and software, numbering systems, installation, and programming. Upon completion, students must demonstrate their ability by developing, loading, debugging, and optimizing PLC programs.

INT253 Industrial Robotics (2/1/3)
Prerequisite: As required by program
This course provides instruction in concepts and theories for the operation of robotic servo motors and power systems used with industrial robotic equipment. Emphasis is on the application of the computer to control power systems to perform work. Student competencies include understanding of the functions of hydraulic, pneumatic, and electrical power system components, ability to read and interpret circuitry for proper troubleshooting and ability to perform preventative maintenance.

Logistics & Supply Chain Technology

LGT106 Workplace Essentials (3/0/3)
Prerequisite: As required by program
This course emphasizes the foundational information to develop knowledge and skills to prepare individuals for employment following completion of technical and academic programs. At the conclusion of this course, students will have knowledge and skills relevant to work ethic, communication, resume writing, job interviewing, dress and appearance, behavior, problem solving, decision making, and project management.

LGT108 Introduction to Logistics (3/0/3)
Prerequisite: As required by program
This course introduces students to the basic concepts of logistics for variety of applications. Students gain insights into how logistics play a vital role in all aspects of business and industry. Specific topics include basic concepts of logistics and health and safety concerns in warehouse and transportation environments.

LGT110 Warehouse Operations I (2/1/3)
Prerequisite: As required by program
This course provides students with introductory information relative to safety and common logistics operational concepts such as warehouse management system: principles of warehousing to include warehouse design: shipping, receiving and distribution of goods: inventory tracking; storage; handling; material handling equipment.

LGT111 Warehouse Operations II (2/1/3)
Prerequisite: As required by program
This course is a continuation of information and skills gained in Warehouse Operations I. Students gain additional information on topics such as: in-house transportation, local application forklift operations, consolidation and packing.

LGT114 Supply Chain Fundamentals/Mgmt. (3/0/3)
Prerequisite: As required by program
This course introduces students to the basic concepts of the supply chain and supply chain management. Students gain insights into the various components of the supply chain, how the supply chain functions interrelate and how they are managed in the business and industry environment. Specific topics include basic concepts of "links and drivers" in the Supply Chain, such as inventory management, sourcing, requisitioning, ERP systems, Purchase Orders, EDI, contracting and distribution.

LGT115 Purchasing in Logistics (3/0/3)
Prerequisite: As required by program
This course provides students with an introduction to purchasing processes to include the impact of purchasing, compliance issues, and Incoterms. Emphasis is placed on the purchase of efficient and effective purchasing practice to ensure the best uses of resources.

LGT117 Survey of Automated Logistics Systems (3/0/3)
Prerequisite: As required by program
This course provides a survey of automated systems used in many logistics and supply chain management applications, Instruction will focus on similarities and differences of automated systems conventions. Upon successful completion of this course students will be familiar with how automated systems support logistics management applications.

LGT120 Materials Management (3/0/3)
Prerequisite: As required by program
This course will introduce students to materials management by learning planning production processes, master scheduling, material requirements, and forecasting material demands and inventory levels. This course is designed to build on the students' knowledge of supply chains and how effective material management improves supply chain performance.

LGT127 Logistics and Regulatory Compliance (3/0/3)
Prerequisite: As required by program
This course provides students with knowledge of international, national, state and local regulations impacting on various aspects of managing logistics and supply chains. Topics include trade compliance, standard shipping documents, harmonized commodity description and coding system, and the role of participating government agencies. At the conclusion of this course students will comprehend key elements of logistics regulatory compliance.

LGT132 Physical Distribution Systems (3/0/3)
Prerequisite: As required by program
This course provides students with an overview of distribution systems common to logistics operations.

Specific topics include just in time systems, warehousing, cross docking and major methods of transportations. Upon completion of this course students will comprehend how various distribution systems impact logistics.

LGT137 Warehouse and Inventory Management (2/1/3)
Prerequisite: As required by program
This course provides students with information on the efficient and effective operation of warehouse operations. Emphasis is placed on the management of warehouse operation and its relationship with supply chain management.

LGT210 Quality Improvement/SC Management (3/0/3)
Prerequisite: As required by program
This course provides basic knowledge and skills with quality improvement processes. Emphasis is placed on analysis of processes to locate potential or actual problems associated with supply chain management.

LGT210 Quality Improvement/SC Management (3/0/3)
Prerequisite: As required by program

LGT271 Supply Chain Analytics (3/0/3)
Prerequisite: As required by program
This course introduces data analysis tools and techniques used by Logistics/Supply Chain Management personnel to effectively analyze large volumes of data. Topics include collection, classification, sortation and presentation of multiple levels/types of product data.

Marine Technology

MRT101 Marine Engines and Drives (2/1/3)
Prerequisite: As required by program
Students will be introduced to professional work standards; shop safety; and the proper use of hand, measuring and precision tools. Students will learn the fundamentals of engine repair and operation for the internal combustion engine, including two-stroke and four-stroke operations. Also covered will be the lubrication, cooling and exhaust systems as well as the differences between outboard and sterndrive systems. Students will learn to perform the steps required to diagnose and service marine engines with mechanical-related concerns.

MRT108 Marine Rigging and Trailers (1/2/3)
Students will learn to perform procedures for rigging outboard motors, aligning sterndrive engines, instrument gauge installation and electrical hookup, remote control, and predelivery adjustments. The importance of rigging, as it relates to customer satisfaction, will be emphasized. Students also will perform setup, installation and maintenance procedures for common optional equipment, including trailers, trolling motors and depth finders. Introduction to the use of trailers, trailer adjustments, wheel bearings maintenance, lighting (LED/incandescent) and vehicle connectors.

MRT111 Service Operations / Customer Service (3/0/3)
Students will become familiar with various service department job functions with dealerships of major manufacturers, including Honda Marine, Mercury Marine, MerCruiser, Suzuki, Volvo, Penta BRP, and Yamaha. They will learn how the technician functions in the dealership in dealing with parts, inventory, warranties, repair orders, technical bulletins, flat rates and service manuals. Students will use hands-on approaches to learn the importance of the various roles in these areas. They will be required to demonstrate knowledge and abilities through written tests and the use of unique training workstations that utilize manufacturers' computer software.

MRT114 Fuel and Lubrication Systems (2/1/3)
Students will learn to identify carburetor and EFI fuel systems on various outboards and sterndrives. They will gain hands-on experience in diagnosing minor fuel system problems, rebuilding carburetors, and performing basic synchronization adjustments on various fuel system configurations. In addition, injector cleaning, replacement, fuel pressure and filters for outboards, inboards, jet and sterndrive applications will be discussed. Upon completion of this course, students will be familiar with procedures to diagnose, troubleshoot, and repair various fuel systems with special attention to carburetors, EFI systems, and diagnostic tools. Various types of oils and lubricant rating systems used in the marine industry are covered, as well as troubleshooting and repairing different types of lubrication systems.

MRT124 Electrical Systems & Diagnostics (2/2/4)
Students will diagnose minor electrical problems within the ignition, charging, starting, warning, engine management, lighting, and accessory systems (e.g., GPS, depth gauge, trolling motors trailer, stereo, NEMA, sump pump, etc.). Engine management electronics includes control computer, sensors, diagnostic equipment, instruments and ignition systems. Documentation to include manufacturers' schematics and new equipment assembly instructions. They will expand their basic knowledge of electrical systems, with an emphasis on problem diagnostics of both newer technical systems and unique older systems.

MRT175 Basic Hydraulics (3/1/4)
This course provides the student with a study of force and energy, pumps, actuators, control valves, flow valves, pressure valves, reservoirs, coolers, filters, motors, symbols, and print reading. Emphasis is placed on troubleshooting and maintaining hydraulic systems. Upon completion, students will understand basic hydraulic principles, how to troubleshoot hydraulic systems, and how to maintain hydraulic components.

MRT200 Marine Engines & Outboard Drives (1/2/3)
Students will be introduced to professional work standards; shop safety; and the proper use of hand tools, measuring, precision instruments and diagnostic devices for outboard engines and drive systems. Students will learn the

fundamentals of engine operation and repair for the internal combustion engine, including two-stroke and four-stroke operations. Also covered will be the lubrication, cooling, ignition, fuel delivery and exhaust systems. Students will learn to perform the steps required to diagnose and service marine engines with electro-mechanical-related concerns.

MRT220 Marine Engines & Stern Drives (1/2/3)
Students will be introduced to professional work standards; shop safety; and the proper use of hand tools, measuring precision instruments and diagnostic devices for stern drive engines and drive systems. Students will learn the fundamentals of engine operation and repair for the internal combustion engine. Also covered will be the lubrication, cooling, ignition, fuel delivery and exhaust systems. Students will learn to perform the steps required to diagnose and service marine engines with electromechanical-related concerns.

Office Administration

SET101 Beginning Keyboarding (3/0/3)
Prerequisite: As required by program
This course is designed to enable the student to use the touch method of keyboarding. Emphasis is on speed and accuracy in keying alphabetic, symbols, and numeric information using the typewriter or microcomputer keyboard. Upon completion, the student should be able to demonstrate proper techniques and acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of basic business documents such as memos, letter, reports, and tables. CORE.

SET104 Advanced Keyboarding (3/0/3)
Prerequisite: As required by program
This course is designed to assist the student in continuing to develop speed and accuracy using the touch method of keyboarding. Emphasis is on the production of business documents using decision-making skills. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy in the production of business documents.

SET125 Basic Word Processing (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student with basic word processing skills. Emphasis is on the utilization of software features to create, edit and print common office documents. Upon completion, the student should be able to demonstrate the ability to use industry-standard software to generate appropriately formatted, accurate, and attractive business documents such as memoranda, letters and reports. CORE

SET126 Advanced Word Processing (3/0/3)
Prerequisite: As required by program
This course is designed to increase student proficiency in using advanced word processing functions. Emphasis is on the use of industry-standard software to maximize productivity. Upon completion, the student should be able to demonstrate the ability to generate complex documents such as forms, newsletters, and multi-page documents.

SET133 Business Communications (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student with skills necessary to communicate effectively. Emphasis is on the application of communication principles to produce clear, correct, logically organized business communications. Upon completion, the student should be able to demonstrate effective communication techniques in written, oral and nonverbal communications.

SET134 Career and Professional Development (3/0/3)
Prerequisite: As required by program
This course is designed to assist the student in preparing for employment. Emphasis is on developing resumes, improving interview techniques, participating in mock interviews, setting goals, conducting job searches and improving personal and professional image. Upon completion, the student will be able to demonstrate confidence in seeking employment.

SET135 Financial Record Keeping (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student with an understanding of the accounting concepts, principles, and terminology. Emphasis is on the accounting cycle and equation as they relate to different types of business ownership. Upon completion, the student should be able to demonstrate accounting procedures used in a proprietorship, partnership, and corporation.

SET138 Records and Information Management (3/0/3)
Prerequisite: As required by program
This course is designed to give the student knowledge about managing office records and information. Emphasis is on basic filing procedures, methods, systems, supplies, equipment, and modern technology used in the creation, protection, and disposition of records stored in a variety of forms. Upon completion, the student should be able to perform basic filing procedures.

SET218 Office Procedures (3/0/3)
Prerequisite: As required by program
This course is designed to develop an awareness of the responsibilities and opportunities of the office professional. Emphasis is on current operating functions, practices and procedures, work habits, attitudes, oral and written communications, and professionalism. Upon completion, the student should be able to demonstrate the ability to effectively function in an office support role.

SET230 Computerized Desktop (3/0/3)
Prerequisite: As required by program

This course is designed to introduce the students to the elements and techniques of page design, layout and typography. Emphasis is on the use of current commercial desktop publishing software, graphic tools, and electronic input/output devices to design and print high-quality publications such as newsletters, brochures, catalogs, forms, and flyers. Upon completion, the student should be able to utilize proper layout and design concepts, in the production of attractive desktop published documents.

SET231 Office Applications (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student with a foundation in the use of computerized equipment and application software as tools in the performance of a variety of office tasks. Emphasis is on the role of the office professional in the selection and application of appropriate technology to the specific task or combination of tasks. Upon completion, the student should be able to demonstrate proficiency in the election of appropriate computerized tools to complete designated tasks.

SET232 The Computerized Office (3/0/3)
Prerequisite: As required by program
This course is designed to enable the student to develop skill in the use of integrated software through classroom instruction and outside lab exercises. Emphasis is on the use of computerized equipment, software, and communications technology. Upon completion, the student should be able to satisfactorily perform a variety of office tasks using current technology.

SET243 Spreadsheet Applications (3/0/3)
Prerequisite: As required by program
This course provides the student with skills needed in performing spreadsheet tasks. Emphasis is on spreadsheet terminology and design, common formulas, proper file and disk management procedures. Upon completion, the student should be able to design, format, and graph effective spreadsheets.

SET244 Database Concepts (3/0/3)
Prerequisite: As required by program
This course is designed to provide the student with an understanding of the concepts of database management. Emphasis is on the use of database software for business applications. Upon completion, the student should be able to create and manipulate data files and format output as documents and reports.

SET245 Data Entry (3/0/3)
Prerequisite: As required by program
This course focuses on the use of computerized equipment and software in performing date entry tasks. Emphasis is on the basic features of data entry software, terminology, and proper file and disk management procedures. Upon completion, the student should be able to perform data entry applications.

SET246 Office Graphics and Presentations (3/0/3)
Prerequisite: As required by program
This course focuses on producing business slides and presentations. Emphasis is on software tools, presentation options, design and presentation considerations. Upon completion, the student should be able to design and produce a business presentation.

Plumbing

PLB111 Introduction to Plumbing (1/2/3)
Prerequisite: As required by program
This course covers fundamental plumbing principles, practices, and history. Topics include basic plumbing principles, safety, job seeking skills, blueprint reading, plumbers' math, shop orientation, and school policy. Upon completion, students will be able to seek employment, understand basic plumbing principles, read and interpret blueprints, work safely, and use formulas to solve plumbing problems involving measurement layouts. CORE NDC.

PLB112 Plumbing Applications (0/3/3)
Prerequisite: As required by program
Students perform various basic plumbing and pipefitting tasks. Safety and regulatory compliance is emphasized throughout this course. At the conclusion of this course students will be able to develop basic plumbing drawings and schematics, use hand and power tools, measure fittings, and join pipe with oxy-fuel equipment.

PLB113 Pipes and Fittings (1/2/3)
Prerequisite: As required by program
This course includes the theory of joining pipe and fittings. Topics include methods of joining pipe and fittings, selecting and using power tools, and methods of securing piping. Upon completion, students will be able to identify pipefitting, identify tools, properly care for tools and identify various types of pipe securing devices. CORE

PLB114 Joining Pipes and Fittings (0/3/3)
Prerequisite: As required by program
This course covers identifying pipe and fittings, proper methods for joining all types of pipe and fittings, hanging and securing pipe and using materials and tools. Emphasis is on all plumbing materials, tools, suppliers, equipment and methods. Upon completion, students will be able to join various pipe and fittings.

PLB115 Pressure & Non-Pressure Systems (1/2/3)
Prerequisite: As required by program
This course covers pressure and non-pressure systems including piping for potable water, drainage, waste, vent, gas, air, and water. Topics include types of plumbing systems, and system design and size. At the conclusion of this course students will be able to rough-in basic plumbing systems for pressure and non-pressure pipe systems. CORE

PLB116 Pressure/Non-Pressure Systems Apps (0/3/3)
Prerequisite: As required by program

Students perform various basic pressure and non-pressure pipe systems tasks. Safety and regulatory compliance is emphasized throughout this course. At the conclusion of this course students will be able to rough-in basic plumbing systems for pressure and non-pressure pipe systems.

PLB117 Plumbing Codes (1/2/3)
Prerequisite: As required by program
This course includes reading and interpreting international codes, local codes, and general regulations. Emphasis is on basic principles, definitions, materials, facility requirements, and technical review. Upon completion, students will be able to read and interpret applicable codes.

PLB118 Code Application (0/3/3)
Prerequisite: As required by program
This course is an application of PLB 117. Emphasis is on fixture unit value, sizing systems, minimum plumbing requirements and construction of pressure and non-pressure systems according to code. Upon completion, students will be able to calculate and construct pressure and non-pressure systems.

PLB119 Fund/Gas Piping Systems for Heating (0/3/3)
Prerequisite: As required by program
This course is an application of PLB 117. Emphasis is on fixture unit value, sizing systems, minimum plumbing requirements and construction of pressure and non-pressure systems according to code. Upon completion students will be able to calculate and construct pressure and non-pressure systems.

PLB121 Special Projects Plumbing Code II (0/1/1)
Prerequisite: As required by program
This course is a continuation of PLB 120. Emphasis will be given to application of fixture unit values, sizing systems and minimum plumbing requirements. Upon completion, the student will be able to calculate and construct pressure and non-pressure systems in accordance with state and local plumbing codes.

PLB122 Special Projects Gas Fitting (0/3/3)
Prerequisite: As required by program
This course covers the local and state codes governing the design and installation of natural gas piping and appliances that use natural gas. Emphasis will be placed on residential and commercial gas piping installation, appliance installation, and venting. Upon completion of this course, the student will be able to demonstrate his/her ability to interpret and apply the various codes governing the design and installation of gas piping and appliances.

PLB211 Plumbing Repair & Installation (3/0/3)
Prerequisite: As required by program
This course enables students to read/follow schematics/ diagrams/rough-in sheets to install or repair plumbing fixtures, to troubleshoot and make repairs. Topics include removing, replacing and repairing plumbing fixtures, new installations and troubleshooting. Upon completion, students will be able to make plumbing repairs and install plumbing fixtures.

PLB212 Plumbing Repair & Installation Lab (0/3/3)
Prerequisite: As required by program
This course is an application of PLB 211. Topics include repairing and installing plumbing fixtures and choosing appropriate fixtures for the job. Upon completion, students will be able to install new fixtures and remove, repair, and replace existing plumbing fixtures.

Welding

WDT108 SMAW Fillet/OFC (2/1/3)
Prerequisite: As required by program
This course provides instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. This course also covers the basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of oxy-fuel cutting.

WDT109 SMAW Fillet/PAC/CAC (2/1/3)
Prerequisite: As required by program
This course provides instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of carbon arc cutting and plasma arc cutting.

WDT110 Industrial Blueprint Reading (3/0/3)
Prerequisite: As required by program
This course provides students with the understanding and fundamentals of industrial blueprint reading. Emphasis is placed on reading and interpreting lines, views, dimensions, weld joint configurations and weld symbols. Upon completion students should be able to interpret welding symbols and blueprints as they apply to welding and fabrication.

WDT119 Gas Metal Arc/Flux Cored Arc Welding (2/1/3)
Prerequisite: As required by program
This course introduces the student to the gas metal arc and flux cored arc welding process. Emphasis is placed on safe operating practices, handling and storage of compressed gasses, process principles, component identification, various welding techniques and base and filler metal identification.

WDT120 Shielded Metal Arc Welding Groove (2/1/3)
Prerequisite: As required by program
This course provides the student with instruction on joint design, joint preparation, and fit-up of groove welds in accordance with applicable welding codes. Emphasis is

placed on safe operation, joint design, joint preparation, and fit-up. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds in accordance with applicable welding codes.

WDT122 SMAW Fillet/OFC Lab (0/3/3)
Prerequisite: As required by program
This course is designed introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of oxy-fuel cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-3 groups in accordance applicable welding code and be able to safely operate oxy-fuel equipment and perform those operations as per the applicable welding code.

WDT 123 SMAW Fillet/PAC/CAC Lab (0/3/3)
Prerequisite: As required by program
This course is designed introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of plasma arc and carbon arc cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-4 groups in accordance with applicable welding code and be able to safely operate plasma arc and carbon arc equipment and perform those operations as per applicable welding code.

WDT124 GMAW/Flux Cored Arc Welding Lab (03/3)
Prerequisite: As required by program
This course provides instruction and demonstration using the various transfer methods and techniques to gas metal arc and flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases.

WDT125 SMAW Grooves Lab (0/3/3)
Prerequisite: As required by program
This course provides instruction and demonstrations in the shielded metal arc welding process on carbon steel plate with various size F3 and F4 group electrodes in all positions. Emphasis is placed on welding groove joints and using various F3 and F4 group electrodes in all positions. Upon completion, the student should be able to make visually acceptable groove weld joints in accordance with applicable welding codes.

WDT157 Consumable Welding Process (1/2/3)
Prerequisite: As required by program
This course provides instruction and demonstration with the consumable welding processes to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe operating practices, equipment identification, equipment set-up, correct selection of electrode, current/polarity, shielding gas and base metals.

WDT158 Consumable Welding Processes Lab (0/3/3)
Prerequisite: As required by program
This course provides instruction and demonstration with the consumable welding processes to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe operating practices, equipment identification, equipment set-up, correct selection of electrode, current/polarity, shielding gas and base metals. Upon completion, the student should be able to produce groove and fillet welds using consumable welding processes according to AWS Codes and standards.

WDT180 Special Topics (1/2/3)
Prerequisite: Determined by instructor
This course allows the student to plan, execute, and present results of individual projects in welding. Emphasis is placed on enhancing skill attainment in the welding field. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor.

WDT181 Special Topics Lab (0/3/3)
Prerequisite: As required by program
This course provides specialized instruction in various areas related to the welding industry. Emphasis is placed on meeting students' needs.

WDT218 Certification (1/2/3)
Prerequisite: As required by program
This course is designed to provide the student with the knowledge needed to perform welds using the prescribed welding process. Emphasis is placed on the welding test joints in accordance with the prescribed welding code. Upon completion, students should be able to pass and industry standard welding test in accordance with various applicable welding code requirements.

WDT219 Welding Inspection and Testing (3/03)
Prerequisite: As required by program
This course provides the student with inspection skills and knowledge necessary to evaluate welded joints and apply quality control measures as needed. Emphasis is placed on interpreting welding codes, welding procedures, and visual inspection methods. Upon completion, students should be able to visually identify visual acceptable weldments as prescribed by the code or welding specification report.

WDT223 Blueprint Reading for Fabrication (1/2/3)
Prerequisite: As required by program
This course provides a student with advanced skills in identifying and interpreting lines, views, dimensions, notes, bill of materials, and the use of tools of the trade. Emphasis is placed on figuring dimensional tolerances, layout and fitting of different component parts. Upon course completion, a student should be able to interpret, layout, and fabricate from blueprints to given tolerances.

WDT228 Gas Tungsten Arc Welding (2/1/3)
Prerequisite: As required by program

This course provides student with knowledge needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and set-up, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes.

WDT258 Certification Lab (0/3/3)

Prerequisite: As required by program

This course is designed to provide the student with the skills needed to perform welds using the prescribed welding process. Emphasis is placed on the welding test joints in accordance with the prescribed welding code. Upon completion, students should be able to pass and industry standard welding test in accordance with various welding code requirements.

WDT268 Gas Tungsten Arc Lab (0/3/3)

Prerequisite: Determined by instructor.

This course provides student with skills needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and set-up, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes.

ADULT EDUCATION/GED

Students seeking to increase basic literacy skills or earn a GED may enroll in courses through the Adult Education program. All courses are self-paced, and students work directly with highly qualified instructors individually and in small groups. Adult Literacy courses are grouped into three areas: mathematics, reading, and language/writing. An orientation to college course is available as well.

Course	Cr. Hr.	Course	Cr. Hr.	Course	Cr. Hr.
ADL020 Math I	3	ADL031 Reading II	3	ADL065 Orientation to College	3
ADL021 Math II	3	ADL032 Reading III	3	ADL080 Language Usage I	3
ADL022 Math III	3	ADL033 Reading IV	3	ADL081 Language Usage II	3
ADL023 Math IV	3	ADL034 Reading V	3	ADL082 Language Usage III	3
ADL024 Math V	3	ADL035 Reading VI	3	ADL083 Language Usage IV	3
ADL025 Math VI	3	ADL036 Reading VII	3	ADL084 Language Usage V	3
ADL026 Math VII	3	ADL037 Reading VIII	3	ADL085 Language Usage VI	3
ADL027 Math VIII	3	ADL056 Basic Writing	3	ADL087 Language Usage VIII	3
ADL030 Reading I	3	ADL057 Int. Writing	3		

Course Descriptions

ADL020 Math I **3 Cr. Hr.**
Beginning Math teaches whole numbers, addition, subtraction, multiplication, and division. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL021 Math II **3 Cr. Hr.**
Primary focus is decimals with continuing attention to whole number problems. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL022 Math III **3 Cr. Hr.**
Primary focus is on computation of fractions. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL023 Math IV **3 Cr. Hr.**
Primary focus is on understanding work problems, with continuing review of previous math criteria. All instructions and materials at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL024 Math V **3 Cr. Hr.**
Primary focus is on percent problems. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL025 Math VI **3 Cr. Hr.**
Primary focus is on ratio, proportion, and measurement. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL026 Math VII **3 Cr. Hr.**
Primary focus is on algebra with continuing attention to appropriate word problems. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL027 Math VIII **3 Cr. Hr.**
Primary focus is on geometry at the Pre-GED level with post-testing on all previous math disciplines. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

ADL030 Reading I **3 Cr. Hr.**
This basic reading course introduces comprehension and understanding of basic words, their meanings, and spellings. All instructions and materials are at Pre-GED levels, structured toward self-pacing with tutorial assistance. The student is frequently assessed to determine progress.

ADL031 Reading II **3 Cr. Hr.**
This basic reading course is designed to help readers improve their comprehension of basic words, their meanings and spellings. All instructions and materials are at Pre-GED levels, structured toward self-pacing with tutorial assistance.

ADL032 Reading III **3 Cr. Hr.**
This basic reading course is designed to help readers improve comprehension of words, vocabulary, study skills and reading rate. All instructions and materials are at Pre-GED levels, designed for self-pacing with tutorial assistance.

ADL033 Reading IV **3 Cr. Hr.**
This comprehensive reading course is designed to help readers improve comprehension, vocabulary, study skills and reading rate. All instructions and materials are at Pre-GED levels, designed for self-pacing with tutorial assistance.

ADL034 Reading V **3 Cr. Hr.**
This comprehensive reading course is designed to help readers improve comprehension, vocabulary, study skills, and reading rate. All instructions and materials are at Pre-GED levels, designed for self-pacing with tutorial assistance.

ADL035 Reading VI **3 Cr. Hr.**
This elevated comprehensive reading course is designed to help readers improve comprehension, vocabulary, and reading rate. All instructions and materials are at Pre-GED levels, designed for self-pacing with tutorial assistance.

ADL036 Reading VII **3 Cr. Hr.**
This elevated comprehensive reading course is designed to help readers improve comprehension, vocabulary, and reading rate. All instructions and materials are at Pre-GED levels, designed for self-pacing with tutorial assistance.

ADL037 Reading VIII **3 Cr. Hr.**
This final reading course is designed to help readers improve comprehension, vocabulary, and reading rate. All instructions and materials are at Pre-GED levels designed for self-pacing with tutorial assistance. The student is frequently assessed to determine progress. Post-testing is a final qualifier for the GED exam.

ADL056 Basic Writing **3 Cr. Hr.**
This course is designed to meet the needs of students with writing deficiencies. Topics include grammar, usage, sentence structure, and paragraph development. Upon completion, using rules of grammar, students should be able to write paragraphs that start with a topic sentence and develop with three or four complete sentences.

ADL057 Intermediate Writing **3 Cr. Hr.**
This course is designed to meet the needs of students with moderate writing deficiencies. Topics include grammar, usage, sentence structure, transitional tools and paragraph development. Upon completion, students should be able to write a composition of three or more paragraphs developing a topic related to a technical occupation.

ADL065 Orientation to College **3 Cr. Hr.**
This course provides an orientation to college for non-high school graduate enrollees. It includes an introduction to locating and using a wide variety of useful information about colleges in the Alabama Two-Year College System.

ADL080 Language Usage I **3 Cr. Hr.**
This course teaches phonics level language, the alphabet, phonetic sounds, basic word construction/ pronunciation. All instructions and materials are at Pre-GED levels, geared toward self-pacing with tutorial assistance.

ADL081 Language Usage II **3 Cr. Hr.**
This course is a continuation and completion of phonics level work and beginning work on basic level language usage. All instructions and materials are at Pre-GED levels, geared toward self-pacing with tutorial assistance.

ADL082 Language Usage III **3 Cr. Hr.**
Primary focus is continuation and completion of basic level language usage, with concentration on sentence structure and usage. All instructions and materials are at Pre-GED levels, geared toward self-pacing with tutorial assistance.

ADL083 Language Usage IV **3 Cr. Hr.**
Primary focus is on intermediate level language usage with concentration correct use of punctuation in sentences. All instructions and materials are at Pre-GED levels, geared toward self-pacing with tutorial assistance.

ADL084 Language Usage V **3 Cr. Hr.**
Primary focus is on continuation and completion of intermediate level language usage and beginning study of advanced level language usage, with concentration on paragraph structure and usage. All instructions and materials are at Pre-GED levels, geared toward self-pacing with tutorial assistance.

ADL085 Language Usage VI **3 Cr. Hr.**
Primary focus is on continuation and completion of advanced level language usage, with concentrated study on essay structure and usage. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

SPECIAL SERVICES PROGRAM

Special Services provides special education service to eligible students at four designated sites in central Alabama. The designated sites include Donaldson Correctional Facility, Frank Lee Work Community-based Facility, Staton Correctional Facility and Tutwiler Women's Prison.

Programs offered to special education students through Special Services are based on a K-12 curriculum and are contracted through the Alabama Community College System to meet the needs of incarcerated students and to meet the requirements of the Individuals with Disabilities Education Act (IDEA, Public Law 101-476).

Students in the program may earn either the Alabama Online High School Diploma or the Alabama Occupational Diploma. Students can also participate in GED preparation and testing, vocational programs at the high school and post-secondary level, transition services for students 90 days prior to release and vocational rehabilitation referrals.

All course offerings match the educational programs implemented by the Alabama State Department of Education Course of Study and are consistent with the student's Individualized Educational Program (IEP).

STUDENT SERVICES

Job Placement Assistance

ISTC provides comprehensive placement assistance to all students. The primary goal of the job placement team is to assist students in transitioning from the technical college level to his/her next objective, whether educational or vocational. Career planning is a developmental process, designed to lead to a successful job search and placement.

Students may evaluate or reevaluate their career/college choices through the placement services provided at Ingram State.

Students interested in placement services should contact their advisor or a job placement/student services representative at any Ingram instructional site, or write to the Reentry Coordinator at the following address:

Reentry Coordinator
J. F. Ingram State Technical College
Post Office Box 220350
Deatsville, Alabama 36022

PERSONNEL DIRECTORY

David Walters ..... President

Albright, Ray ..... Cabinetmaking Instructor
Allen, Julian ..... Vocational Core Training Assistant
Anderson, Delicia ..... AE Instructor
Annis, Rodney ..... AE Instructor
Apel, Shawn ..... AE Instructor
Alston, Kimberly ..... Campus Services Coordinator
Banks, Quincey ..... Electrical Technology Instructor
Barnes, Lorraine ..... AE Instructor
Barnett, Connie ..... Barbering Instructor
Batie, Jerome ..... Career Specialist
Baynard, Malinda ..... Transition Specialist
Benz, Larissa ..... AE Instructional Support Coordinator
Berwager, Thomas ..... Carpentry Instructor
Bishop, James ..... Auto Body Repair Instructor
Blackmon, Brian ..... Facilities Maintenance Technician
Booker, Sheree ..... ACE/PREP Instructor
Boswell, Inez ..... AE Instructor
Boyd, Brantley ..... Accounting Director
Braden, Jennifer ..... Job Placement Coordinator
Brashears, Kimberly ..... Administrative Assistant to the President
Briggs, Barry ..... Assessment Specialist
Brown, Edward ..... AE Instructor
Brown, LaShonda ..... AE Instructor
Bullard, Wayne ..... Barbering Instructor
Calloway, JaCorey (Dr.) ..... Job Placement Coordinator
Campbell, Terrell ..... ACE/PREP Instructor
Chambley, Casey (Dr.) ..... Center Director-Draper/Red Eagle/Montg. DRC and SES Director
Cherry, Shannon ..... Student Services Enrollment Specialist
Chisum, Ross ..... IT Support Specialist
Cochran, LaMonica ..... Cosmetology Instructor
Conger, Kerri ..... Business Office Specialist/Accounts Payable
Corbett, Angela ..... Student Services Admission Specialist
Costa-Taylor, Stacy ..... Student Services Admissions Specialist
Cox, Ramona ..... Dean of Students
Crawford, Derek ..... Academic Instructor
Crenshaw, Kayla ..... SES Case Manager
Crowell, DeAndre ..... SES Counselor
Cummings, Chris ..... Reentry Skills Facilitator
Cunningham, Keith ..... Carpentry Instructor
Curry, Scottie ..... Welding Instructor
DeNeal, Marilyn ..... AE Instructor
Dike, Evelyn ..... AE Instructor
Downing, Kimberly ..... SES Data Technician

Elliott, Calvin.....Plumbing Instructor
Emfinger, Kelly.....Reentry Services Director
Etheredge, Richard .....Auto Mechanics Instructor
Farrior, Ukesha ..... SES Assistant/Psychometrist
Fleming, Danielle ..... AE Instructor
Foshee, Jeff..... (PT) Instructional Assistant
Foshee, Jim ..... (PT) Instructional Assistant
Foshee, Renee .....Administrative Assistant/Reentry Services
Fox, Amelia ..... Chief Financial Officer
Franks, Janet .....AE Instructor
Freeman, Benjamin.....Industrial Maintenance Technology Instructor
Gant, Lewis .....Electrical Technology Instructor
Gantt, Jade.....Job Placement Coordinator
Garner, Tony ..... Facilities Maintenance Technician
Garnett, Perry ..... Vocational Training Assistant
Gibbons, Candace ..... Academic Instructor
Givens, Jeanna .....Business Office Specialist / Payroll and Purchasing
Glasco, Norman ..... Logistics Instructor
Golson, Colby ..... IT Support Specialist
Gordon, Diana .....AE Instructor
Granger, Danyail .....AE Career Coach
Griffin, Reggie .....AE Instructor
Gylden, Mercury.....AE Instructor
Hails, LaShanda..... Associate Dean of Faculty Development and Institutional Effectiveness
Hamby, Kenneth ..... Industrial Maintenance Instructor
Hamilton, Jerry .....Marine Technology Instructor
Harley-Wright, Kimberly ..... Reentry Skills
Hawkins, Daphne .....Student Services Admissions Specialist
Hayes, James .....Diesel Mechanics Instructor
Henderson, James ..... Information Systems Director
Holloway, Artemas (Dr.) ..... Logistics Instructor
Holloway, Woodie..... ACE/PREP Instructor
Hulett, LeShauna .....SES Coordinator
Hunter, Jamaal.....P & P Director and Center Director—Thomasville/Perry
Huskey, Don .....(PT) Instructional Assistant
Ingram, Chris.....Welding Instructor
Jackson, Christopher.....Reentry Career/Success Coach
Johnican, Manuel.....Logistics Instructor
Johnson, Allen.....Commercial Truck Driving Instructor
Johnson, Kelvin ..... Facilities Maintenance Technician
Johnson-Kidd, Lisha ..... AE Instructor
Jones, Derek .....Electrical Technology Instructor
Jones, Jason .....HVAC Instructor
Jones, Michael .....AE Instructor

Joseph-Chambers, Hannah .....Administrative Assistant
Keahey, Terry .....(PT) Career Technical Assistant
Kendrick, Charleen .....AE Instructor
Killcreas, Obie.....Student Services Director
Killcreas, Toby..... Assessment Specialist
Kyles, Markell .....AE Instructor
LaFrance, Keith ..... Academic Instructor
Lang, Allen .....AE Instructor
Lawrence, Tracye .....Job Placement Coordinator
Lee III, William .....Plumbing Instructor
Lewis, Joyce .....AE Instructor
Lindsey, Joseph.....SES Instructor
Lloyd, Brian.....HVAC Instructor
Lowe, Keith .....Carpentry Instructor
Lucas, Eddie .....Carpentry Instructor
Lucido, John .....Electrical Instructor
Matthews, Sheree .....Administrative Assistant/CFO
Maxwell, Larry .....AE Instructor
Mayes, Kristy.....Student Services Admission Specialist
McCall, Deldrek.....Behavioral & Readiness Coordinator
McClarin, Kercilda..... Office Administration Instructor
McDuffie, Jacqueline ..... Administrative Assistant/Center Director
McIver, Sharifay.....Student Services Enrollment Coordinator
McLean, Matt .....Center Director - Bibb/Donaldson
Meadows, Allen.....HVAC Instructor
Mims, Michael .....SES Assistant
Moore, Shawn .....Automotive Mechanics Instructor
Nash, Marcus..... AE Support Coordinator
Nelson, Scott.....Welding Instructor
Patterson, Erica.....Student Services Admission Specialist
Patterson, Lee.....HVAC Instructor
Phillips, Ira (Dr.) .....Workforce Development Coordinator
Phillips, Richard ..... Reentry Career Coach
Pierce, Erica.....Administrative Assistant/Dean of Instruction
Poole, Matt..... Logistics Instructor
Porterfield, LaTonya.....Student Services Enrollment Coordinator
Posey, Andrew.....IT Support Specialist
Powers, James .....AE Instructor
Probst, Julliana (Dr.) ..... Associate Dean of Instruction and Center Director
Rasbury, Shane .....HVAC Instructor
Reeves, Christopher .....IT Support Specialist
Reeves, LeAnn..... Academic Instructor

Richardson, Andrea ..... Human Resources Coordinator
Roberts, Stacey..... Grant Coordinator
Robertson, Kecia.....Grants/Sponsored Programs Coordinator
Robinson, Charlotte ..... Instructional Assistant
Robinson, Selena ..... ACE/PREP Instructor
Rolin, Thomas ..... Auto Body Repair Instructor
Rose, Samantha ..... Public Relations Coordinator
Rowden, Tamitha.....SES Assistant
Shannon, Sheryl (Dr.) ..... Academic Instructor
Shore, Craig (Dr.) ..... Associate Dean of Student Services
Sims, DeQuendolyn ..... Cosmetology Instructor
Smith, Carlos.....SES Specialist
Smith, Daphyne.....Job Placement Coordinator
Smith, Gregg ..... Electrical Technology Instructor
Smith, Jessica.....HR/Payroll Specialist
Smith, Latashia ..... Electrical Technology Instructor
Smith, Verna ..... Barbering Instructor
Spurlin, Chad..... Vocational Training Assistant
Stockman, Jeffery.....Center Director-Tutwiler/Kilby/Montg. Women's
Strength, Emma .....Business Office Specialist/Budget Analyst
Taylor, Jeffrey ..... Horticulture Instructor
Taylor, Tanquilla.....Admission Specialist
Thomas, Jeff..... Carpentry Instructor
Thomas, Toby .....Welding Instructor
Thompson, Jay.....Director of Facility Projects & Transportation
Thompson, John .....Plumbing Instructor
Thompson, Phaidra.....(PT) ACE Instructor
Tippins, Stanley (Dr.)..... Center Director-ATEF/St. Clair
Tuck, Kimberly .....SES Assistant
Turner, Amber .....ACE/PREP Instructor
Twyman, Tameka..... Administrative Assistant/Center Director
Walker, Frank.....Carpentry Instructor
Walker, George..... HVAC Instructor
Walker, Sharon ..... Adult Education Director
Warren, Kalendria.....SES Case Manager
Washington, Jeff .....Network Administrator
Wesson, Billy.....Welding Instructor
Wilkins, Tra.....Vocational Training Assistant
Williams, Andre .....SES Assistant
Williams, Tyrone.....Reentry Case Manager
Willoughby, Tonya ..... Administrative Assistant/AE
Wilson, Eddie .....Facilities Maintenance Technician

Wofford, Phoenix..... Barbering Instructor
Wright, Jason ..... GED Testing Specialist
Young “Butch” William (Dr.) .....Dean of Instruction

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While provisions of this catalog will ordinarily be applied as stated, ISTC reserves the right to change any provision listed in this catalog, to include but not limited to, academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. It is especially important that students keep themselves apprised of current graduation requirements for their particular degree program. Current information will be available in the office of the Director of Student Services, or by telephone at (334) 285-5177.