From the President

Welcome and thank you for your interest in J.F. Ingram State Technical College (ISTC).

ISTC holds a unique place within the Alabama Community College System, serving a student population comprised exclusively of incarcerated individuals. ISTC provides technical training in 18 career fields, GED preparation and testing, and job placement assistance to men and women from six correctional facilities. ISTC has also been the designated provider of educational services at the Alabama Therapeutic Education Facility (ATEF) in Columbiana since 2008.

A 2018 study by the RAND Corporation states that incarcerated individuals who participate in high-quality correctional education, like the career technical programs provided by ISTC, are 28 percent less likely to return to prison within three years.

Ingram graduates not only learn valuable technical and soft skills, they experience – some for the first time – the satisfaction of accomplishing a personal goal while preparing for success in the workplace.

The vision of ISTC is to lead the nation in providing quality correctional educational programs, promoting activities to reduce recidivism, increasing public safety, and sustaining fiscal accountability for the citizenry of Alabama.

If you would like to learn more about ISTC and how our graduates are making a difference in the workplace, contact us at www.istc.edu.

Annette Funderburk
President
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# 2019-2020 Academic Calendar

## Fall 2019 Semester
- **August 13 – 14**: Faculty Off, Staff Duty Day
- **August 15**: Registration
- **August 16**: Classes Begin
- **August 26**: Last Day for Drop/Add
- **September 2**: Labor Day Holiday (College Closed)
- **October 8**: Faculty/Staff Duty Day
- **October 11**: Mid-Term
- **October 17**: Mid-Term Grades Due
- **November 11**: Veteran’s Day Holiday (College Closed)
- **November 25 – 26**: State Professional Development (No Students)
- **November 27**: Faculty/Staff Duty Day (No Students)
- **November 28 – 29**: Thanksgiving Holiday (College Closed)
- **December 9 – 10**: Final Exams
- **December 13**: Classes End
- **December 13**: Grades Due
- **December 16**: Faculty/Staff Duty Day – Local Professional Development
- **December 17 – 20**: Faculty Off, Staff Duty Day
- **December 23 – January 1**: Holiday (College Closed)

## Spring 2020 Semester
- **January 2**: Faculty Off, Staff Duty Day
- **January 3**: Registration
- **January 6**: Classes Begin
- **January 14**: Last Day for Drop/Add
- **January 20**: Martin Luther King, Jr. / Robert E. Lee Holiday (College Closed)
- **February 17**: Faculty/Staff Duty Day - Local Professional Development
- **March 2**: Mid-Term
- **March 3**: Mid-Term Grades Due
- **March 23 – 27**: Faculty Off / Staff Duty Day
- **April 27**: Faculty/Staff Duty Day (No Students)
- **April 29 – May 1**: Final Exams
- **May 5**: Classes End / Grades Due

## Summer 2020 Semester
- **May 5**: Registration
- **May 6**: Classes Begin
- **May 12**: Last Day for Drop/Add
- **May 19 & 21**: Commencement Ceremonies
- **May 25**: Memorial Day Holiday (College Closed)
- **June 1**: Faculty/Staff Duty Day - Local Professional Development
- **June 8 – 12**: Faculty Off / Staff Duty Day
- **June 26**: Mid-Term
- **June 29**: Mid-Term Grades Due
- **July 3**: Independence Day Holiday (College Closed)
- **August 4 – 6**: Final Exams
- **August 7**: Classes End / Grades Due
- **August 10 – 11**: Faculty/Staff Duty Day - Local Professional Development
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 seven correctional facilities and the Alabama Therapeutic Education facility; and to parolees at L.I.F.E. Tech Transition Center.

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

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<tr>
<th>District 1</th>
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<th>District 7</th>
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<td>Mr. Al Thompson</td>
<td>Mr. Matthew Woods</td>
<td>Mr. Chuck Smith</td>
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<td>Mr. John Mitchell</td>
<td>Ms. Crystal Brown</td>
<td>Mr. Blake McAnally</td>
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<td>Ms. Susan Foy</td>
<td>Mr. Milton A. Davis</td>
<td>Mr. Jeffrey Newman</td>
</tr>
</tbody>
</table>

**Alabama Community College System**  
Jimmy Baker, Chancellor

**Our Mission**

J.F. Ingram State Technical College provides comprehensive educational services to incarcerated adults to reduce recidivism and return responsible citizens to society.

**Our Vision**

The vision of J.F. Ingram State Technical College is to lead the nation in providing correctional educational programs through professional services and personnel, promoting activities to reduce recidivism, increasing public safety, and sustaining fiscal accountability for the citizenry of Alabama.

- Bibb Correctional Facility  
  565 Bibb Lane  
  Brent, AL 35034

- Donaldson Correctional Facility  
  100 Warrior Lane  
  Bessemer, AL 35023

- Draper Instructional Service Center  
  2800 Highway 143  
  Elmore, AL 36025

- Main Campus  
  5375 Ingram Road  
  Deatsville, AL 36022

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

- Tutwiler Instructional Service Center  
  8970 U.S. Highway 231 North  
  Wetumpka, AL 36092

- Alabama Therapeutic Education Facility  
  102 Industrial Parkway  
  Columbiana, AL 35051

- L.I.F.E. Transition Center  
  2115 Bashi Road  
  Thomasville, AL 36784
Nondiscrimination Policy Statement

In accordance with the official policy of the Alabama Community College System and the Alabama Community College System Board of Trustees as well as all other applicable federal regulations, ISTC 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 on the basis of 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.

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 ISTC 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. Violation of any part of the student conduct code can result in dismissal. Inmate students are strongly cautioned that the correctional education environment places responsibilities on students and staff that cannot be ignored.

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 of 1974, all students and former students of ISTC have the right to inspect their official educational records in the Director of Student Services office. This act limits the release of information by the College concerning a student without that student’s written permission.
Sexual Harassment Policy

Sexual harassment is a form of discrimination that violates Section 703 of Title VII of the Civil Rights Act of 1964, as amended. ISTC Policy 601.04 states that it is the policy of the college to maintain a working and learning environment that is free of sexual harassment. Anyone who wishes to obtain a copy of this policy, or believes that he or she has been sexually harassed and wishes to file a complaint, should contact the college’s institutional compliance officer: Coordinator of Human Resources, J. F. Ingram State Technical College, Post Office Box 220350, Deatsville, AL 36022.

Grievance Procedures

A grievance is an alleged violation, misunderstanding, or misinterpretation of school policy by any member of the professional staff, nonprofessional staff, or student body. Students are guaranteed procedural rights and substantial due process in all cases involving formal discipline charges. This also includes academic dismissal cases. Students who believe they have a grievance and wish to pursue the resolution of that grievance should first contact the Dean of Students. Student Support Services personnel will be assigned to explain the procedures and implement any proceedings.

Any employee who believes that he or she has a grievance should first contact the Coordinator of Human Resources. The purpose of any grievance procedure is to settle equitably, at the lowest possible administrative level, differences and issues related to the school policy. This procedure does not apply to alleged discrimination relating to race, gender, disability, or other federally legislated civil rights. The proceedings will be kept as informal as possible, while retaining confidentiality at all levels of the procedure.

Attendance Policy

Regarding student attendance, the College adheres to ACCS BOT Policy 809.01, Chancellor’s Procedures for Policy 809.01 and ISTC policy 809.01.

Students are expected to attend class regularly. Discretion will be used by instructors and the Dean of Students regarding absences beyond the student’s control; however, students are strongly advised to attend regularly. Any problems with attendance should be directed to the proper College official.

Live-Work Policy

It is the philosophy of ISTC, that live work is 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.
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 particular 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. Recommendation by correctional facility job board
3. Completed and signed ISTC admission application
4. Required score on the ACCUPLACER or Test of Adult Basic Education (TABE)
5. Although a high school diploma or General Education Development diploma (GED) is preferred, non-graduates may be enrolled in some career technical courses under the Ability to Benefit Criteria
6. One (1) primary form of identification.

Associate Degree Programs
1. Applicant must be at least 16 years of age
2. Applicant must hold a diploma issued by a regionally and/or state accredited high school or have successfully completed the General Education Development diploma (GED); an official transcript is required
3. Completed and signed ISTC admission application
4. One (1) primary form of identification
5. Required score on the ACCUPLACER or Test of Adult Basic Education (TABE)
6. Recommendation by correctional facility job board

Admission by Ability to Benefit
All students seeking admission under this section must be assessed using the state-approved ACCUPLACER and/or 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 AE instructor advisement.

Readmission of Prior Students
Students who have been out of school for one (1) semester or more must meet the current requirements for entry into career technical programs.
## 2019-2020 Tuition/Fee Rates

*August 18, 2019 – August 7, 2020*

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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.
Official School Catalog Addendum- J.F. Ingram State Technical College

I certify the current policy is true and correct:

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-9/11 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 transferor’s discharge or release from a period of active duty service of 90 days or more.

• Anyone described above while he or she 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. § 3311(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.

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

February 2, 2017

Date

[Signature] Interim President

Title
Official School Catalog Addendum -Terms Beginning after 3/1/2019 (PL 115-251Sec.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-911 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 while he or she 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. § 3311(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  
December 12, 2018  
Name of School  
Date  
President  
Signature/Title  
of individual authorized to make official revisions to the catalog
Tuition and Fees

Tuition, fees and special costs are waived for only one program completion per student. Students who are required to pay tuition must have the financial status of CLEAR no later than seven (7) days after drop and add. If the status of the student is not CLEAR, the student will be withdrawn. If a student enrolls in a second program, the following tuition, fees and refund policy will apply.

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

<table>
<thead>
<tr>
<th>Period of Withdrawal</th>
<th>Refund Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the first day of class</td>
<td>100 %</td>
</tr>
<tr>
<td>During the first week of class</td>
<td>75 %</td>
</tr>
<tr>
<td>During the second week of class</td>
<td>50 %</td>
</tr>
<tr>
<td>During the third week of class</td>
<td>25 %</td>
</tr>
</tbody>
</table>

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 the Dean of Students’ office and complete and return the form. Refund of tuition applies for students who completely withdraw from the College during the refund period and so notify the Dean of Students’ 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.

Guidance and Counseling

Initial orientation is provided to all students upon their enrollment in the college. Counseling by student services personnel in educational, vocational, and personal matters is available to all students.

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. In the case of developmental courses, students who receive either a grade of U or IP for two semesters may not enroll in that course for a third semester until they receive special academic advising. This advising may include requiring a study skill course or other actions considered appropriate by the student’s educational planning committee.

**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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Excellent:</td>
<td>(91 - 100)</td>
<td>4</td>
</tr>
<tr>
<td>B-Good:</td>
<td>(81 - 90)</td>
<td>3</td>
</tr>
<tr>
<td>C-Average:</td>
<td>(71 - 80)</td>
<td>2</td>
</tr>
<tr>
<td>D-Poor:</td>
<td>(61 - 70)</td>
<td>1</td>
</tr>
<tr>
<td>F-Failure:</td>
<td>(60 or less)</td>
<td>0</td>
</tr>
</tbody>
</table>

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:** Must be prior to mid-term, otherwise WP or WF must be assigned. Credit hours will not be averaged into the GPA. 0-points.

**WP-Withdrawal Passing:** The student will be assigned a grade of WP if passing at the time of withdrawal. Credit hours will not be averaged into the GPA. 0-points.

**S-Satisfactory:** For developmental courses. Credit hours will not be averaged into the GPA.

**U- Unsatisfactory:** For developmental courses, credit hours will not be averaged into the GPA.

**IP-In Progress:** For developmental courses, credit hours will not be averaged into the 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 student admitted on academic probation, only course in which they have earned a course grade of “C” or better will be accepted for transfer. Awarding of 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 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.
# Career Technical Education Programs

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Program</th>
<th>Location(s)</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR</td>
<td>Automotive Body Repair</td>
<td>Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>AUM</td>
<td>Automotive Technology</td>
<td>Main/Tutwiler</td>
<td>STC/C</td>
</tr>
<tr>
<td>BAR</td>
<td>Barbering</td>
<td>Donaldson/Draper/Main</td>
<td>STC/C</td>
</tr>
<tr>
<td>CAB</td>
<td>Cabinetmaking</td>
<td>Main</td>
<td>STC/C</td>
</tr>
<tr>
<td>CAR</td>
<td>Carpentry</td>
<td>Bibb/Main</td>
<td>STC/C</td>
</tr>
<tr>
<td>CFS</td>
<td>Commercial Food Service</td>
<td>Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>CFS</td>
<td>Commercial Truck Driving</td>
<td>Draper</td>
<td>NC</td>
</tr>
<tr>
<td>COS</td>
<td>Cosmetology</td>
<td>Tutwiler</td>
<td>STC/C</td>
</tr>
<tr>
<td>DEM</td>
<td>Diesel Mechanics</td>
<td>Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>ELT</td>
<td>Electrical Technology</td>
<td>Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>ASC</td>
<td>Heating, Ventilation and Air Conditioning</td>
<td>Bibb/Draper/Main</td>
<td>STC/C/AAT</td>
</tr>
<tr>
<td>INT</td>
<td>Industrial Systems Technology</td>
<td>Main</td>
<td>STC/C</td>
</tr>
<tr>
<td>LGT</td>
<td>Logistics &amp; Supply Chain Technology</td>
<td>Draper/Tutwiler</td>
<td>STC/C</td>
</tr>
<tr>
<td>MAS</td>
<td>Masonry</td>
<td>Donaldson/Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>SET</td>
<td>Office Administration</td>
<td>Tutwiler</td>
<td>STC/C/AAT</td>
</tr>
<tr>
<td>PLB</td>
<td>Plumbing</td>
<td>Donaldson/Draper</td>
<td>STC/C</td>
</tr>
<tr>
<td>UPH</td>
<td>Upholstery</td>
<td>Main</td>
<td>STC/C</td>
</tr>
<tr>
<td>WDT</td>
<td>Welding</td>
<td>Draper/Main/Tutwiler</td>
<td>STC/C</td>
</tr>
</tbody>
</table>

**Awards Key:**
- **AAT** – Associate of Applied Technology degree
- **C** – Certificate
- **STC** – Short Term Certificate
# Non-Credit Training Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Location(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building &amp; Construction</td>
<td>LIFE Tech</td>
</tr>
<tr>
<td>Carpentry</td>
<td>ATEF/LFE Tech</td>
</tr>
<tr>
<td>Commercial Truck Driving</td>
<td>Draper</td>
</tr>
<tr>
<td>Electrical</td>
<td>LIFE Tech</td>
</tr>
<tr>
<td>Forklift Operation</td>
<td>ATEF</td>
</tr>
<tr>
<td>Horticulture</td>
<td>LIFE Tech</td>
</tr>
<tr>
<td>HVAC</td>
<td>ATEF</td>
</tr>
<tr>
<td>OSHA 10-hour General Safety</td>
<td>ATEF/Bibb/Draper/LIFE Tech/Main/Tutwiler</td>
</tr>
<tr>
<td>Plumbing</td>
<td>ATEF</td>
</tr>
<tr>
<td>Small Engine Repair</td>
<td>LIFE Tech</td>
</tr>
<tr>
<td>Swift Coding</td>
<td>Draper/Main Campus/Tutwiler</td>
</tr>
<tr>
<td>Welding</td>
<td>ATEF/LIFE Tech</td>
</tr>
</tbody>
</table>
**Automotive Body Repair**

**Program Overview**
Automotive Body Repair (ABR) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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**
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, employment of automotive body repairers is projected to grow eight percent from 2016 to 2026, about as fast as the average for all occupations. The best opportunities in automotive body repair field will be available to those with industry certification and training in automotive body repair and refinishing, and in collision repair.

**Awards**

**Certificate**
Automotive Body Repair

**Short Term Certificate**
Components of Auto Body
- Non-Structural Repair
- Structural Repair
- Surface Preparation & Refinishing

**Industry Certification**
National Career Readiness Credential

**Program Contact**
Mr. Woody Chisum, Instructor
Draper Instructional Service Center
334-514-3589
woody.chisum@istc.edu

**Estimated Program Length**

<table>
<thead>
<tr>
<th>Award</th>
<th>Length</th>
<th>Cr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Certificate</td>
<td>1 semester</td>
<td>12</td>
</tr>
<tr>
<td>Certificate of Completion</td>
<td>4 semesters</td>
<td>60</td>
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**Required Program Courses**

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

**Required Academic Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT100</td>
<td>Introductory Computer Skills I</td>
<td>3</td>
</tr>
<tr>
<td>ENG100</td>
<td>Vocational Technical English</td>
<td>3</td>
</tr>
<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
<td>3</td>
</tr>
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</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR157</td>
<td>Automotive Plastic Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABR181</td>
<td>Special Topics in Auto Body</td>
<td>3</td>
</tr>
<tr>
<td>ABR182</td>
<td>Special Topics in Auto Body</td>
<td>3</td>
</tr>
<tr>
<td>ABR266</td>
<td>Alum. Welding in Collision Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABR281</td>
<td>Special Topics in Auto Body</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Automotive Body Repair Certificate of Completion

**First Semester**
- ABR111 Non-Structural Repair 3
- ABR114 Non-Structural Panel Replacement 3
- ABR151 Safety & Environmental Practices 3
- ABR156 Automotive Cutting and Welding 3
- MAH101 Introductory Mathematics I 3

**Second Semester**
- ABR213 Automotive Structural Analysis 3
- ABR214 Automotive Structural Repair 3
- ABR255 Steering and Suspension 3
- ABR269 Estimating and Damage Analysis 3
- ENG100 Vocational Technical English 3

**Third Semester**
- ABR122 Surface Preparation 3
- ABR123 Paint Application & Equipment 3
- ABR261 Restraint Systems 3
- ABR265 Paint Defects & Final Repair 3
- SPC103 Oral Communication Skills 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
- DPT100 Introductory Computer Skills I 3

**Total Credit Hours** 60

### 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

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Automotive Mechanics

Program Overview
Automotive Mechanics (AUM) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
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 $39,550 in May 2017. Employment in this field is projected to grow at around six percent from 2016 to 2026, about as fast as the average for all occupations. Job seekers should note industry certification is often required once the person is employed.

Awards
Certificate
Automotive Mechanics

Short Term Certificate
Braking Systems
Engine Performance
Heating/Air Conditioning
Transmissions
Wheel Alignment

Industry Certification
National Career Readiness Credential

Program Contacts
Mr. Eric McClellan, Instructor
Main Campus
334-514-1355
eric.mcclellan@istc.edu

Mr. Shawn Moore, Instructor
Tutwiler Instructional Service Center
334-514-8150
shawn.moore@istc.edu

Estimated Program Length

<table>
<thead>
<tr>
<th>Award</th>
<th>Length</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Certificate</td>
<td>1 semester</td>
<td>9</td>
</tr>
<tr>
<td>Certificate of Completion</td>
<td>5 semesters</td>
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</tr>
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</table>

Required Program Courses

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

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DPT100</td>
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<td>ENG100</td>
<td>Vocational Technical English</td>
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</tr>
<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
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</tr>
<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
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Elective Courses

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<th>Credit Hours</th>
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<tbody>
<tr>
<td>AUM182</td>
<td>Special Topics</td>
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</tbody>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Automotive Mechanics Certificate of Completion

**First Semester**
- AUM101 Fund. of Automotive Technology 3
- AUM112 Electrical Fundamentals 3
- AUM121 Braking Systems 3
- MAH101 Introductory Mathematics I 3

**Second Semester**
- AUM122 Steering and Suspension 3
- AUM124 Automotive Engines 3
- AUM162 Electrical and Electronic Systems 3
- ENG100 Vocational Technical English 3

**Third Semester**
- AUM130 Drive Train and Axles 3
- AUM133 Motor Vehicle Air Conditioning 3
- AUM212 Adv. Electrical/Electronic Systems 3
- SPC103 Oral Communication Skills 3

**Fourth Semester**
- AUM220 Advanced Automotive Engines 3
- AUM239 Engine Performance 3
- AUM244 Engine Performance & Diagnostics 3
- DPT100 Introductory Computer Skills I 3

**Fifth Semester**
- AUM224 Manual Transmission/Transaxle 3
- AUM230 Automatic Transmission/Transaxle 3
- AUM246 Automotive Emissions 3
- AUM281 Special Topics 3

**Total Credit Hours** 60

### 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 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 Transmission Short Term Certificate

- AUM224 Manual Transmission/Transaxle 3
- AUM230 Automatic Transmission/Transaxle 3
- AUM246 Automotive Emissions 3
- AUM281 Special Topics 3

**Total Credit Hours** 12

### 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

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BARBERING

Program Overview
Barbering (BAR) is a 48 semester hour program combining class-room theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and all required career technical courses. Students can also earn stackable short term certificates and industry certifications. 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.

Occupational Data
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 grow 13 percent from 2016 to 2026, faster than the average for all occupations.

Awards
Certificate
Barbering

Short Term Certificate
Barbering Fundamentals
Business Management
Chemical Texture Services

Industry Certification
National Career Readiness Credential

Program Contacts
Ms. Connie Barnett, Instructor
Draper Instructional Service Center
334-514-3586
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Mr. Hayward Duncan, Instructor
Donaldson Correctional Facility
334-290-2555
haywood.duncan@istc.edu

Ms. LaTonya Porterfield, Instructor
Main Campus
334-514-1357
latonya.porterfield@istc.edu

Estimated Program Length
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<td>BAR120</td>
<td>Properties of Chemistry</td>
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<td>Chemical Hair Processing</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
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<td>BAR115 Cutting and Styling Techniques</td>
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<td>ENG100 Vocational Technical English</td>
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<td>BAR130 Marketing &amp;Business Management</td>
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<td>BAR132 Styling and Design</td>
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**Total Credit Hours** 48

### Barbering Chemical Texture Services Short Term Certificate

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**Total Credit Hours** 12

### Barbering Barbering Fundamentals Short Term Certificate

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**Total Credit Hours** 12

### Barbering Business Management Short-Term Certificate

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**Total Credit Hours** 12

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

CABINETMAKING

Program Overview
Cabinetmaking (CAB) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
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, finishing, staining and sealing wood cabinets. According to the Bureau of Labor Statistics, cabinetmakers earned an average of $30,530 in 2016. Though companies are more likely to hire employees who are computer savvy, cabinetmakers who are expert woodworkers will continue to have good job opportunities.

Awards
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
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<td>CAB102</td>
<td>Intro to Lumber and Wood Products</td>
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<td>CAB103</td>
<td>Sizes, Dimensions and Joints</td>
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<td>CAB104</td>
<td>Cabinet Shop Operations</td>
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<td>CAB110</td>
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<td>CAB206</td>
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<td>CAB211</td>
<td>Cabinet Installation and Trim Work</td>
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<td>CAB260</td>
<td>Woodturning I</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Cabinetmaking Certificate of Completion

**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
- MAH101 Vocational Technical Mathematics I 3

**Second Semester**
- CAB110 Equipment Maintenance 3
- CAB140 Wood Finishing Fundamentals 3
- CAB141 Wood Finishing 3
- CAB204 Cabinetmaking and Millwork 3
- ENG100 Vocational Technical English 3

**Third Semester**
- CAB205 Furniture Construction 3
- CAB225 Kitchen and Bath Design 6
- CAB260 Wood Turning I 3
- CAB261 Wood Turning II 3
- SPC103 Oral Communication Skills 3

**Fourth Semester**
- CAB206 Special Projects in Furniture Const. 3
- CAB211 Cabinet Installation and Trim Work 3
- CAB230 Estimating Costs in Cabinetmaking 3
- DPT100 Introductory Computer Skills I 3

**Total Credit Hours** 60

### 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** 12

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CARPENTRY

Program Overview
Carpentry (CAR) is a 48 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
Carpenters construct, repair, and install building frameworks and structures made from wood and other materials. Their median annual wage was $45,170 in May 2017. According to the Bureau of Labor Statistics, employment of carpenters is expected to grow eight percent from 2016 to 2026, as fast as the average for all occupations. Increased levels of new homebuilding and remodeling activity will result in more jobs.

Awards
Certificate
Cabinetmaking

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
Mr. Eddie Lucas, Instructor
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334-514-3582
eddie.lucas@istc.edu

Mr. Keith Lowe, Instructor
Bibb Correctional Facility
334-285-5177
keith.lowe@istc.edu

Estimated Program Length

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<td>Floor, Wall and Ceiling</td>
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Elective Courses

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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
Carpentry
Certificate of Completion

First Semester
CAR111 Construction Basics 3
CAR112 Floors, Walls, and Site Prep 3
CAR113 Floors, Walls, and Site Prep Lab 3
CAR114 Construction Basics Lab 3

Second Semester
CAR121 Introduction to Blueprint Reading 3
CAR131 Roof and Ceiling Systems 3
CAR133 Roof and Ceiling Systems Lab 3
MAH101 Vocational Technical Mathematics I 3

Third Semester
CAR203 Special Project in Carpentry 3
CAR214 Introduction to Carpentry 3
DPT100 Vocational Technical Computers 3
SPC103 Oral Communication Skills 3

Fourth Semester
CAR224 Floor, Wall and Ceiling Specialties 3
CAR228 Stairs, Molding and Trim 3
ENG100 Vocational Technical English I 3
WKO110 NCCER CORE 3

Total Credit Hours: 48

Carpentry Framing Fundamentals Short Term Certificate

CAR121 Introduction to Blueprint Reading 3
CAR131 Roof and Ceiling Systems 3
CAR133 Roof and Ceiling Systems Lab 3

Total Credit Hours: 9

Carpentry Stairs, Molding and Finishing Short Term Certificate

CAR-224 Floor, Wall and Ceiling Specialties 3
CAR-228 Stairs, Molding and Trim 3

Total Credit Hours: 6

Carpentry Cabinetry Basics Short Term Certificate

CAR-203 Special Project in Carpentry 3
CAR-214 Introduction to Carpentry 3

Total Credit Hours: 6

Carpentry Floor and Wall Basics Short Term Certificate

CAR111 Construction Basics 3
CAR112 Floors, Walls, and Site Prep 3
CAR113 Floors, Walls, and Site Prep Lab 3
CAR114 Construction Basics Lab 3

Total Credit Hours: 12

COMMERCIAL FOOD SERVICE

Program Overview
Commercial Food Service (CFS) is a 29 semester hour program combining classroom theory with hands-on practice in the laboratory. The program focuses on principles and practices related to the administration of food service systems in institutional settings, and is designed to help students acquire the knowledge, skills and abilities needed to prepare for successful entry-level employment in the field of commercial food service.

Occupational Data
Food service managers are responsible for the daily operation of restaurants or other establishments that prepare and serve food and beverages. Individuals in this field often work early mornings, late evenings, weekends, and holidays. The work can be hectic and fast-paced. According to the Bureau of Labor Statistics, the median annual wage for food service managers was $52,030 in May 2017. Employment in this field is projected to grow approximately 10 percent from 2016 to 2026, faster than the average for all occupations.

Awards
- Short Term Certificate
  - Commercial Food Service
  - Food Service Basics

Industry Certification
- National Career Readiness Credential
- ServSafe Food Handler

Program Contact
Mr. Douglas Roberts, Instructor
Draper Correctional Facility
334-514-5059
douglas.roberts@istc.edu

Estimated Program Length

<table>
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<td>CFS112</td>
<td>Sanitation, Safety, and Food Services</td>
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<td>CFS113</td>
<td>Table Service</td>
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<tr>
<td>CFS115</td>
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<td>CFS120</td>
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<td>CFS199</td>
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<tr>
<td>CFS251</td>
<td>Menu Design</td>
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Commercial Food Services
Short Term Certificate

First Semester
- CFS101 Orientation/Hospitality Profession 3
- CFS110 Basic Food Preparation 3
- CFS111 Foundations in Nutrition 3
- CFS112 Sanitation, Safety and Food Service 2
- CFS120 Basic Food Preparation Lab 2
- CFS199 Healthy Cooking 1

Second Semester
- CFS102 Catering 2
- CFS113 Table Service 2
- CFS114 Meal Management 3
- CFS115 Advanced Food Preparation 3
- CFS182 Special Topics in CFS 3
- CFS251 Menu Design 2

Total Credit Hours 29
# Commercial Food Service

## Food Service Basics

### Short Term Certificate

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<tr>
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<td>Foundations in Nutrition</td>
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<tr>
<td>CFS112</td>
<td>Sanitation, Safety and Food Service</td>
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<td>CFS199</td>
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**Total Credit Hours:** 14

---

Cosmetology

Program Overview
Cosmetology (COS) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
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 in new jobs nationwide. Employment is projected to grow 13 percent from 2016 to 2026, faster than the average for all occupations.

Awards
Certificate
Cosmetology

Short Term Certificate
- Fundamentals of Chemical Services
- Fundamentals of Cosmetology
- Salon Management and Technology
- Spa Techniques

Industry Certification
National Career Readiness Credential

Program Contact
Ms. Anne Gantt, Instructor
Tutwiler Instructional Service Center
334-514-8153
enda.gantt@istc.edu

Estimated Program Length
<table>
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Required Program Courses

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<td>COS113</td>
<td>Theory of Chemical Services</td>
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<td>COS115</td>
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<td>COS117</td>
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<td>COS118</td>
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<td>COS133</td>
<td>Salon Management Technology</td>
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<td>COS141</td>
<td>Applied Chemistry for Cosmetology</td>
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<tr>
<td>COS142</td>
<td>Applied Chemistry/Cosmetology Lab</td>
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<tr>
<td>COS143</td>
<td>Specialty Hair Prep Techniques</td>
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<tr>
<td>COS144</td>
<td>Hair Shaping and Design</td>
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<td>COS145</td>
<td>Hair Shaping Lab</td>
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<tr>
<td>COS158</td>
<td>Employability Skills</td>
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<tr>
<td>COS167</td>
<td>State Board Review</td>
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Required Academic Courses

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<td>ENG100</td>
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</tr>
<tr>
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<td>Introductory Mathematics I</td>
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Elective Courses

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<td>COS151</td>
<td>Nail Care</td>
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<td>COS152</td>
<td>Nail Care Applications</td>
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<tr>
<td>COS182</td>
<td>Special Topics</td>
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</table>

Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Cosmetology Certificate of Completion

**First Semester**
- COS111 Cosmetology Science and Art 3
- COS112 Cosmetology Science and Art Lab 3
- COS113 Chemical Methodology 3
- COS114 Chemical Services Lab 3
- ENG100 Vocational Technical English I 3

**Second Semester**
- COS115 Hair Coloring Theory 3
- COS116 Hair Coloring Lab 3
- COS141 Applied Chemistry for Cosmetology 3
- COS142 Applied Chemistry/Cosmetology Lab 3
- DPT100 Introductory Computer Skills I 3

**Third Semester**
- COS117 Basic Spa Techniques 3
- COS118 Basic Spa Techniques Lab 3
- COS144 Hair Shaping and Design 3
- COS145 Hair Shaping Lab 3
- MAH101 Introductory Mathematics I 3

**Fourth Semester**
- COS133 Salon Management Techniques 3
- COS143 Specialty Hair Prep Technique 3
- COS158 Employability Skills 3
- COS167 State Board Review 3
- SPC103 Oral Communications Skills 3

**Total Credit Hours** 60

---

### Cosmetology Fundamentals of Cosmetology Short Term Certificate

**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 Cosmetology Short Term Certificate

**Salon Management and Technology Short Term Certificate**
- COS133 Salon Management Techniques 3
- COS143 Specialty Hair Prep Technique 3
- COS158 Employability Skills 3
- COS167 State Board Review 3

**Total Credit Hours** 12

---

### Cosmetology Spa Techniques Short Term Certificate

**Spa Techniques Short Term Certificate**
- COS117 Basic Spa Techniques 3
- COS118 Basic Spa Techniques Lab 3
- COS144 Hair Shaping and Design 3
- COS145 Hair Shaping Lab 3

**Total Credit Hours** 12

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**Diesel Mechanics**

**Program Overview**

Diesel Mechanics (DEM) is a 60 semester hour program combining classroom theory and hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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**

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 $46,360 in May 2017. Job prospects will be best for those who have completed postsecondary training in diesel engine repair.

**Awards**

**Certificate**

Diesel Mechanics

**Short Term Certificate**

Electrical Fundamentals

Engine Repair

Heavy Duty Brake Repair

Train Service

**Industry Certification**

National Career Readiness Credential

**Program Contact**

Mr. Randy Hull, Instructor
Draper Instructional Service Center
334-514-3590
randy.hull@istc.edu

---

**Estimated Program Length**

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**Required Program Courses**

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<td>DEM111</td>
<td>Equip Safety/Mech. Fundamentals</td>
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<td>DEM122</td>
<td>Heavy Vehicle Brakes</td>
<td>3</td>
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<td>DEM123</td>
<td>Pneumatics and Hydraulics</td>
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<td>DEM124</td>
<td>Electronic Engine Systems</td>
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<td>DEM125</td>
<td>Heavy Vehicle Drive Trains</td>
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<td>DEM126</td>
<td>Advanced Engines</td>
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<td>DEM127</td>
<td>Fuel Systems</td>
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<td>DEM130</td>
<td>Electrical/Electronic Fundamentals</td>
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<tr>
<td>DEM135</td>
<td>HV Steering/Suspension Systems</td>
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<td>DEM137</td>
<td>Heating/AC/Refrigeration Systems</td>
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<td>DEM170</td>
<td>Heavy Vehicle Air Brakes</td>
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<td>DEM183</td>
<td>Special Topics in Power Train</td>
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<td>DEM186</td>
<td>Special Projects in Comm. Vehicles</td>
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**Required Academic Courses**

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<thead>
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<td>Introductory Mathematics I</td>
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**Elective Courses**

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<td>DEM182</td>
<td>Special Topics in Engines</td>
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<td>ST HD Brakes/Steering/Suspension</td>
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<td>DEM191</td>
<td>Special Projects in Diesel Mechanics</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Diesel Mechanics
#### Certificate of Completion

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<td>Heavy Vehicle Brakes</td>
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<td>DEM170</td>
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<tr>
<td></td>
<td>ENG100</td>
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<td>Heavy Vehicle Drive Train Lab</td>
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### Diesel Mechanics
#### Engine Repair
##### Short Term Certificate

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ELECTRICAL TECHNOLOGY

Program Overview
Electrical Technology (ELT) is a 42 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
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 $54,110 in May 2017. Job growth over the coming decade is projected to be comparable to other fields. As homes and businesses require more wiring, electrical technicians will be needed to install the necessary components.

Awards
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

Estimated Program Length

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Required Program Courses

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<td>ELT117</td>
<td>AC/DC Machines</td>
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<td>Commercial/Industrial Wiring</td>
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Required Academic Courses

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Elective Courses

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<td>ELT241</td>
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<td>ELT242</td>
<td>Journeyman Master Prep Exam</td>
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</tr>
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<td>ELT244</td>
<td>Conduit Bending and Installation</td>
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</tr>
<tr>
<td>ELT245</td>
<td>Electrical Grounding Systems</td>
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</table>

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

Program Contact
Mr. Don Huskey, Instructor
334-514-3588
Location: Draper Campus
donald.huskey@istc.edu

J.F. Ingram State Technical College 2019 – 2020 College Catalog
## Electrical Technology Certificate of Completion

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<th>Second Semester</th>
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<tbody>
<tr>
<td>ELT110 Wiring Methods</td>
<td>3</td>
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<tr>
<td>ELT117 AC/DC Machines</td>
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</tr>
<tr>
<td>ELT118 Commercial/Industrial Wiring I</td>
<td>3</td>
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<tr>
<td>DPT100 Introductory Computer Skills I</td>
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<td>MAH101 Introductory Mathematics I</td>
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<tr>
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<tr>
<td>ELT230 Programmable Controls</td>
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<td>SPC103 Oral Communication Skills</td>
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**Total Credit Hours** 42

## Electrical Technology Residential Wiring Short Term Certificate

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<tbody>
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**Total Credit Hours** 12

## Electrical Technology Commercial/Industrial Wiring Short Term Certificate

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<td>ELT110 Wiring Methods</td>
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<tr>
<td>ELT117 AC/DC Machines</td>
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**Total Credit Hours** 9

## Electrical Technology Industrial Controls Short Term Certificate

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<tbody>
<tr>
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<tr>
<td>ELT230 Programmable Controls</td>
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</table>

**Total Credit Hours** 9

---

HEATING, VENTILATION AND AIR CONDITIONING

Program Overview
Heating, Ventilation and Air Conditioning is a maximum 69 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the Associate of Applied Technology degree include seven academic courses totaling 21 credit hours and all required career technical courses. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
HVAC technicians work on heating, ventilation, cooling, and refrigeration 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 2017 the average salary for an HVAC technician was $47,080 annually. Employment in this field is projected to grow 15 percent from 2016 to 2026, much faster than the average for all occupations. Commercial and residential building construction will drive this growth, and job opportunities are expected to be plentiful.

Awards

Associate of Applied Technology degree
Heating, Ventilation and Air Conditioning

Certificate
Heating, Ventilation and Air Conditioning

Short Term Certificate
Basic Circuit Boards
Basic HVAC
Basic Repair Service

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

Program Contact
Mr. Stan Humphries, Instructor
Main Campus
334-514-1352
stan.humphries@istc.edu

Mr. Shane Rasbury, Instructor
Bibb Correctional Facility
334-285-5177
Shane.rasbury@istc.edu

Tim Strength, Instructor
Draper Instructional Service Center
334-514-3584
Tim.strength@istc.edu

Estimated Program Length

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<th>Award</th>
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<td>AAT Degree</td>
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Required Program Courses

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<td>HVAC/R Service Procedures</td>
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<td>ASC113</td>
<td>Refrigeration Piping Practices</td>
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<tr>
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<td>Principles of Electricity for HVAC/R</td>
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<tr>
<td>ASC122</td>
<td>HVAC/R Electric Circuits</td>
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<tr>
<td>ASC123</td>
<td>HVAC/R Electrical Components</td>
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</tr>
<tr>
<td>ASC125</td>
<td>Fund of Gas/Electrical Heat Systems</td>
<td>6</td>
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<tr>
<td>ASC127</td>
<td>HVAC/R Electric Motors</td>
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<td>ASC132</td>
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<tr>
<td>ASC138</td>
<td>Customer Relations in HVAC/R</td>
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<tr>
<td>ASC147</td>
<td>Refrigerant Transition/Recovery Theory</td>
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<td>ASC152</td>
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<td>Special Topics in AC/Refrigeration II</td>
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## Required Academic Courses - degree

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<td>ENG131</td>
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<tr>
<td>MTH116</td>
<td>Mathematical Applications</td>
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<tr>
<td>MTH246</td>
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<td>PSY270</td>
<td>Business and Industrial Psychology</td>
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## Required Academic Courses - certificate

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<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
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## Elective Courses

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<td>ASC120</td>
<td>Fundamentals of Electric Heat Systems Lab</td>
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<td>ASC128</td>
<td>Heat Load Calculations</td>
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<td>Special Topics in AC/Refrigeration I</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.

## HVAC AAT Degree

### First Semester

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<th>Title</th>
<th>Credit Hours</th>
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<tbody>
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<td>ASC113</td>
<td>Refrigeration Piping Practices</td>
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<td>ASC121</td>
<td>Principles of Electricity for HVAC/R</td>
<td>3</td>
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<td>ASC122</td>
<td>HVAC/R Electric Circuits</td>
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<td>MTH116</td>
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### Second Semester

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>ASC123</td>
<td>HVAC/R Electrical Components</td>
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<td>ASC125</td>
<td>Fund of Gas/Electrical Heat Systems</td>
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### Third Semester

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### Fourth Semester

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<td>ASC152</td>
<td>Heat Pump Systems</td>
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<td>ASC210</td>
<td>Troubleshooting HVAC/R Systems</td>
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## Total Credit Hours

69

### HVAC Certificate of Completion

### First Semester

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### Second Semester

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### Third Semester

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## Total Credit Hours

60
### HVAC
**Basic Repair Service**
*Short Term Certificate*

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<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Refrigeration Piping Practices</td>
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<tr>
<td>ASC122</td>
<td>HVAC/R Electric Circuits</td>
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Total Credit Hours **12**

### HVAC
**Basic Circuit Boards**
*Short Term Certificate*

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<th>Course Title</th>
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<tbody>
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<td>ASC125</td>
<td>Fund of Gas/Electrical Heat Systems</td>
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<td>ASC127</td>
<td>HVAC/R Electrical Motors</td>
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Total Credit Hours **12**

### HVAC
**Basic HVAC**
*Short Term Certificate*

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<th>Course Title</th>
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<tr>
<td>ASC132</td>
<td>Residential Air Conditioning</td>
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<td>Refrigerant Transition/Recovery Theory</td>
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Total Credit Hours **12**

### Heating/Ventilation/AC
**Repair Service**
*Short Term Certificate*

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<tr>
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<tr>
<td>ASC210</td>
<td>Troubleshooting HVAC/R Systems</td>
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Total Credit Hours **12**

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INDUSTRIAL SYSTEMS TECHNOLOGY

Program Overview
Industrial Systems Technology (IST) 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 industrial maintenance.

Occupational Data
Industrial systems 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 systems technicians, machinery mechanics, machinery maintenance workers, and millwrights was $50,440 in May 2017. Employment in this field is projected to grow around six percent over the coming decade, as the need to keep increasingly sophisticated machinery functioning and efficient continues to create demand for qualified workers.

Awards
Short Term Certificates
- Basic Concentration
- Millwright Helper Concentration
- Plant Mechanical Helper Concentration

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

Program Contact
Mr. J. Kenneth Hamby, Instructor
Main Campus
334-514-1358
james.hamby@istc.edu

Estimated Program Length

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<tr>
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<tr>
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<td>INT103</td>
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<tr>
<td>INT105</td>
<td>Introduction to Process Technology</td>
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<tr>
<td>INT106</td>
<td>Elements of Industrial Mechanics</td>
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<tr>
<td>INT109</td>
<td>Components of Material Handling</td>
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<td>Ind. Maintenance Safety Procedures</td>
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<td>INT117</td>
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<td>Industrial Hydraulics Troubleshooting</td>
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Elective Courses

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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Industrial Systems Technology
#### Industrial Maintenance - Emphasis in Basic Concentration
##### Short Term Certificate

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<td>DC Fundamental</td>
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**Total Credit Hours** 15

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### Industrial Systems Technology
#### Industrial Maintenance – Emphasis in Millwright Helper
##### Short Term Certificate

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<tr>
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<td>Ind. Maintenance Safety Procedures</td>
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<td>INT117</td>
<td>Principles of Industrial Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>INT118</td>
<td>Fund. of Ind. Pneumatics/ Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>INT127</td>
<td>Principles Ind. Pump/Piping Systems</td>
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<tr>
<td>INT134</td>
<td>Principles Ind. Maintenance Welding</td>
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**Total Credit Hours** 15

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### Industrial Systems Technology
#### Industrial Maintenance – Emphasis in Plant Mechanical Helper
##### Short Term Certificate

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<tr>
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<th>Course Title</th>
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<tr>
<td>INT106</td>
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<tr>
<td>INT121</td>
<td>Industrial Hydraulics Troubleshooting</td>
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<td>INT161</td>
<td>Blueprint Reading/Ind. Technicians</td>
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<tr>
<td>INT184</td>
<td>Intro to PLCs</td>
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<tr>
<td>INT253</td>
<td>Industrial Robotics</td>
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</table>

**Total Credit Hours** 15

---

Logistics and Supply Chain Technology (LGT) is a 48 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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.

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 in this field vary depending on the type of work involved. According to the Bureau of Labor Statistics, in 2017 materials handlers earned around $34,830 annually, while logisticians earned an average of $75,590. Employment is projected to grow over the next decade, driven by the need for logistics in the transportation of goods in a global economy.

Awards
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
Mr. Artemas Holloway, Instructor
Draper Instructional Service Center

334-514-3591
artemas.holloway@istc.edu

Mr. Matt Poole, Instructor
Tutwiler Instructional Service Center
334-514-8156
matt/poole@istc.edu

Estimated Program Length

<table>
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<th>Cr. Hours</th>
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Required Program Courses

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<tr>
<td>LGT108</td>
<td>Introduction to Logistics</td>
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<td>LGT110</td>
<td>Warehouse Operations I</td>
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<tr>
<td>LGT111</td>
<td>Warehouse Operations II</td>
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<tr>
<td>LGT114</td>
<td>Supply Chain Fundamentals/Mgmt.</td>
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<td>LGT115</td>
<td>Purchasing in Logistics</td>
<td>3</td>
</tr>
<tr>
<td>LGT120</td>
<td>Materials Management</td>
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<tr>
<td>LGT127</td>
<td>Logistics and Regulatory Compliance</td>
<td>3</td>
</tr>
<tr>
<td>LGT132</td>
<td>Physical Distribution Systems</td>
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</tr>
<tr>
<td>LGT137</td>
<td>Warehouse and Inventory Mgmt.</td>
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<tr>
<td>LGT210</td>
<td>Quality Improvement in SCM</td>
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<tr>
<td>LGT271</td>
<td>Supply Chain Analytics</td>
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Required Academic Courses

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<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DPT100</td>
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<td>3</td>
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<tr>
<td>ENG100</td>
<td>Vocational Technical English</td>
<td>3</td>
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<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
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<td>SPC103</td>
<td>Oral Communication Skills</td>
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Elective Courses

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<td>LGT117</td>
<td>Survey/Automated Logistics Systems</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
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<td>LGT106 Workplace Essentials</td>
<td>LGT115 Purchasing in Logistic</td>
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<tr>
<td>LGT108 Introduction to Logistics</td>
<td>LGT127 Regulatory Compliance</td>
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<td>LGT110 Warehouse Operations I</td>
<td>LGT271 Supply Chain Analytics</td>
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<td>LGT137 Warehouse Management</td>
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<td>LGT210 Quality Improvement</td>
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<td></td>
<td></td>
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<tr>
<td><strong>Third Semester</strong></td>
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<tr>
<td>LGT114 Supply Chain Fundamentals/Mgmt.</td>
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<tr>
<td>LGT120 Materials Management</td>
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<tr>
<td>LGT132 Physical Distribution Systems</td>
<td></td>
</tr>
<tr>
<td>SPC103 Oral Communications Skills</td>
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<td></td>
<td><strong>Total Credit Hours</strong></td>
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<tr>
<td></td>
<td><strong>9</strong></td>
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<tr>
<td><strong>Fourth Semester</strong></td>
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<tr>
<td>LGT115 Purchasing in Logistic</td>
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<tr>
<td>LGT127 Regulatory Compliance</td>
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<td>LGT271 Supply Chain Analytics</td>
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</tr>
<tr>
<td>ENG100 Vocational Technical English I</td>
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<td><strong>Total Credit Hours</strong></td>
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<tr>
<td></td>
<td><strong>9</strong></td>
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<table>
<thead>
<tr>
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<tr>
<td><strong>Logistics Operations I</strong></td>
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<tr>
<td><strong>Short Term Certificate</strong></td>
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<tr>
<td>LGT114 Supply Chain Fundamentals/Mgmt.</td>
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Program Overview
Masonry (MAS) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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 masonry field.

Occupational Data
Masonry workers use bricks, concrete blocks, concrete, natural and manmade stones to build walls, walkways, fences, and other masonry structures. The work is physically demanding; masons lift heavy materials and often stand, kneel, and bend for long periods. According to the bureau of Labor Statistics, the median annual wage for masonry workers was $42,900 in May 2017. Employment is projected to grow 12 percent from 2016 to 2026, faster than the average for all occupations. Population growth will result in the construction of more schools, hospitals, homes, and other buildings requiring the work of skilled masons.

Awards
Certificate
Masonry

Short Term Certificate
Brick/Block Masonry
Cement Masonry
Specialized Masonry
Stone Masonry

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

Program Contact
Mr. David Milledge, Instructor
Draper Instructional Service Center
334-514-3583
david.milledge@istc.edu

Estimated Program Length
<table>
<thead>
<tr>
<th>Award</th>
<th>Length</th>
<th>Cr. Hours</th>
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</thead>
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Required Program Courses
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<td>MAS111</td>
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<tr>
<td>MAS121</td>
<td>Brick/Block Masonry Fundamentals</td>
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<tr>
<td>MAS131</td>
<td>Brick/Block Masonry Fund. II</td>
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<tr>
<td>MAS151</td>
<td>Brick/Block Masonry Fund. III</td>
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</tr>
<tr>
<td>MAS161</td>
<td>Block Masonry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MAS162</td>
<td>Brick Masonry Lab</td>
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<td>MAS171</td>
<td>Residential/Commercial Masonry</td>
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<td>MAS181</td>
<td>Special Topics in Masonry</td>
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<td>MAS211</td>
<td>Stone Masonry</td>
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<tr>
<td>MAS231</td>
<td>Basic Cement Masonry</td>
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<tr>
<td>MAS251</td>
<td>Stone Masonry Lab</td>
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<td>MAS252</td>
<td>Fireplace Construction</td>
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<td>MAS253</td>
<td>Brick Arches Lab</td>
<td>3</td>
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<td>MAS261</td>
<td>Specialized Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MAS271</td>
<td>Basic Cement Masonry Lab</td>
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</tr>
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<td>MAS272</td>
<td>Advanced Cement Masonry</td>
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Required Academic Courses
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DPT100</td>
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</tr>
<tr>
<td>ENG100</td>
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<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
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<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
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Elective Courses
<table>
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<td>MAS282</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
### Masonry Certificate of Completion

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<tr>
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<td>MAS111 Masonry Fundamentals</td>
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<tr>
<td>MAS121 Brick/ Block Masonry Fundamentals</td>
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<td>MAS131 Brick/ Block Masonry Fund. II</td>
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<td>MAS151 Brick/Block Masonry Fund. III</td>
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<td>ENG100 Vocational Technical English I</td>
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<td>MAS162 Brick Masonry Lab</td>
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<td>MAS231 Basic Cement Masonry</td>
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<td>MAS271 Basic Cement Masonry Lab</td>
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<thead>
<tr>
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<tbody>
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**Total Credit Hours** 60

### Masonry Cement Masonry Short Term Certificate

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**Total Credit Hours** 12

### Masonry Specialized Masonry Short Term Certificate

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<td>MAS261 Specialized Masonry</td>
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**Total Credit Hours** 12

### Masonry Stone Masonry Short Term Certificate

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<tbody>
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<tr>
<td>MAS252 Fireplace Construction</td>
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**Total Credit Hours** 12

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Office Administration

Program Overview
Office Administration is a maximum 69 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the Associate of Applied Technology degree include seven academic courses totaling 21 credit hours and all required career technical courses. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
Office administration professionals typically perform clerical and administrative duties, including organizing files, preparing documents, scheduling appointments, and supporting other staff. They need strong communications and organizational skills and should be proficient with computers. According to the Bureau of Labor Statistics, the median annual wage for administrative assistants was $37,380 in 2017. 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
Associate of Applied Technology degree
Office Administration

Certificate
Office Administration

Short Term Certificate
Bookkeeping Clerk
Clerk Typist
General Clerk

Industry Certification
Microsoft Office Specialist
National Career Readiness Credential

Program Contact
Ms. Valerie Pittman, Instructor
Tutwiler Instructional Service Center
334-514-8149
valerie.pittman@istc.edu

Estimated Program Length

<table>
<thead>
<tr>
<th>Award</th>
<th>Length</th>
<th>Cr. Hours</th>
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</thead>
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Required Program Courses

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<tr>
<td>SET104</td>
<td>Advanced Keyboarding</td>
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<tr>
<td>SET125</td>
<td>Basic Word Processing</td>
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<tr>
<td>SET126</td>
<td>Advanced Word Processing</td>
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<tr>
<td>SET133</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>SET134</td>
<td>Career and Professional Development</td>
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<tr>
<td>SET135</td>
<td>Financial Record Keeping</td>
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<tr>
<td>SET138</td>
<td>Records and Information Management</td>
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<tr>
<td>SET218</td>
<td>Office Procedures</td>
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<td>SET230</td>
<td>Computerized Desktop Publishing</td>
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<tr>
<td>SET231</td>
<td>Office Applications</td>
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<td>The Computerized Office</td>
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<td>Spreadsheet Applications</td>
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<td>Database Concepts</td>
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<td>SET245</td>
<td>Data Entry</td>
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<tr>
<td>SET246</td>
<td>Office Graphics and Presentations</td>
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Required Academic Courses - degree

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### Required Academic Courses - certificate

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<td>MAH101</td>
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<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
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</table>

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

### Office Administration

#### AAT Degree

#### First Semester
- SET101 Beginning Keyboarding 3
- SET125 Basic Word Processing 3
- SET134 Career and Professional Development 3
- ENG131 Applied Writing I 3

#### Second Semester
- SET104 Advanced Keyboarding 3
- SET135 Financial Recordkeeping 3
- SET243 Spreadsheet Applications 3
- SPC103 Oral Communication Skills 3

#### Third Semester
- SET126 Advanced Word Processing 3
- SET133 Business Communications 3
- SET218 Office Procedures 3
- SET245 Data Entry 3
- MAH101 Introductory Mathematics I 3

#### Fourth Semester
- SET138 Records and Information Management 3
- SET231 Office Applications 3
- SET244 Database Concepts 3
- SET246 Office Graphics and Presentations 3
- DPT100 Introductory Computer Skills I 3

#### Total Credit Hours 54

### Office Administration Certificate of Completion

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<tr>
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<table>
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<td>SET104 Advanced Keyboarding 3</td>
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<td>SET218 Office Procedures 3</td>
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<td>MAH101 Introductory Mathematics I 3</td>
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| Total Credit Hours 54 |

### Office Administration

#### Bookkeeping Clerk Short Certificate

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<tbody>
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<td>SET125 Basic Word Processing 3</td>
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<td>SET134 Career and Professional Development 3</td>
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| Total Credit Hours 9 |

### Office Administration Clerk Typist Short Certificate

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J.F. Ingram State Technical College 2019 – 2020 College Catalog
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**Office Administration**  
**General Clerk**  
**Short term Certificate**

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<td>SET133</td>
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<tr>
<td>SET218</td>
<td>Office Procedures</td>
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PLUMBING

Program Overview
Plumbing (PLB) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
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 $52,590 in May 2017. Employment is projected to grow 16 percent from 2016 to 2026, much faster than the average for all occupations. New construction, building maintenance and repair will drive demand, with many job opportunities.

Awards
Certificate
Plumbing

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

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

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

Estimated Program Length

<table>
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<tr>
<th>Award</th>
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<th>Cr. Hours</th>
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</thead>
<tbody>
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<tr>
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Required Program Courses

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<tr>
<td>PLB112</td>
<td>Plumbing Applications</td>
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<tr>
<td>PLB113</td>
<td>Pipe &amp; Fittings</td>
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</tr>
<tr>
<td>PLB114</td>
<td>Joining Pipes &amp; Fittings</td>
<td>3</td>
</tr>
<tr>
<td>PLB115</td>
<td>Pressure/Non-Pressure Systems</td>
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<td>PLB116</td>
<td>Pressure/Non-Pressure Systems Apps.</td>
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<td>PLB117</td>
<td>Plumbing Codes</td>
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<td>PLB118</td>
<td>Code Applications</td>
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<td>PLB119</td>
<td>Fund/Gas Piping Systems for Heating</td>
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<td>Special Projects: Gas Fitting Code</td>
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<td>PLB211</td>
<td>Plumbing Repair and Installation</td>
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<td>PLB212</td>
<td>Plumbing Repair and Installation Lab</td>
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<td>PLB213</td>
<td>Process Piping</td>
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<td>PLB214</td>
<td>Process Piping Applications</td>
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<td>PLB217</td>
<td>Pumps and Compressors</td>
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Required Academic Courses

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<tr>
<td>DPT100</td>
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<tr>
<td>MAH101</td>
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<td>SPC103</td>
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Elective Courses

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<td>PLB120</td>
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<td>PLB121</td>
<td>Special Projects: Plumbing Code II</td>
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Electives may be offered to meet a student’s personal educational goals or for instructional purposes.
Plumbing Certificate of Completion

First Semester
PLB111 Introduction to Plumbing 3
PLB112 Plumbing Applications 3
PLB113 Pipes & Fittings 3
PLB114 Joining Pipes & Fittings 3
ENG100 Vocational Technical English I 3

Second Semester
PLB115 Pressure/Non Pressure Systems 3
PLB116 Pressure/Non Pressure System Apps 3
PLB117 Plumbing Codes 3
PLB118 Code Applications 3
MAH101 Introductory Mathematics I 3

Third Semester
PLB211 Plumbing Repair and Installation 3
PLB212 Plumbing Repair and Installation Lab 3
PLB217 Pumps & Compressors 3
PLB218 Pumps & Compressors Applications 3
SPC103 Oral Communication Skills 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
DPT100 Introductory Computer Skills I 3

Total Credit Hours 60

Plumbing
Basic Pipe Joining Technique
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 System
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 System
Short Term Certificate

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

Total Credit Hours 12


J.F. Ingram State Technical College 2019 – 2020 College Catalog
UPHOLSTERY

Program Overview
Upholstery (UPH) is a 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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 upholstery field.

Occupational Data
Upholsterers make, repair, or replace upholstery for household furniture and transportation vehicles. Job opportunities range from large factories to boutique or single craftsperson shops. This field requires both physical stamina and strong attention to detail. According to the Bureau of Labor Statistics, in 2016 the median average wage for furniture upholsterers was $35,020, and $36,080 for vehicle upholsterers. Job openings in this field are predicted to be slightly less than the national average during the coming decade; however, there will continue to be a demand for skilled workers.

Awards

Certificate
Upholstery

Short Term Certificate
Decorative Upholstery Trimmer
Shop Management
Upholstery Designer
Upholstery Fundamentals and Design

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

Estimated Program Length
<table>
<thead>
<tr>
<th>Award</th>
<th>Length</th>
<th>Cr. Hours</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>Certificate of Completion</td>
<td>4 semesters</td>
<td>60</td>
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Required Program Courses

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<th>Title</th>
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<td>UPH113</td>
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<td>Correlating Decorative Elements</td>
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<td>UPH122</td>
<td>Decorative Elements Furniture Lab</td>
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<td>UPH124</td>
<td>Decorative Elements Exp. Lab</td>
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<td>UPH211</td>
<td>Design Interiors Furniture and Auto</td>
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<td>Upholstery Crafts &amp; Accessories</td>
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<td>UPH222</td>
<td>Interior Materials Furniture</td>
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Required Academic Courses

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Elective Courses

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

Program Contact
Ms. Sandy Caylor, Instructor
Main Campus
334-514-1360
sandy.caylor@istc.edu
# Upholstery Certificate of Completion

**First Semester**
- UPH111 Upholstery Fundamentals & Design 3
- UPH112 Upholstery Design Furniture Lab 3
- UPH113 Upholstery Design Auto Lab 3
- UPH114 Upholstery Design Experimental Lab 3
- MAH101 Introductory Mathematics I 3

**Second Semester**
- UPH121 Correlating Decorative Elements 3
- UPH122 Decorative Elements Furniture Lab 3
- UPH123 Decorative Elements Auto 3
- UPH124 Decorative Elements Exp. Lab 3
- ENG100 Vocational Technical English I 3

**Third Semester**
- UPH211 Design Interior Furniture & Auto 3
- UPH212 Design Interiors Furniture Lab 3
- UPH213 Design Interiors Auto Lab 3
- UPH214 Design Interior Experimental Lab 3
- DPT100 Introductory Computer Skills I 3

**Fourth Semester**
- UPH183 Special Topics 3
- UPH215 Shop Management and Layout 3
- UPH217 Upholstery Craft and Accessories 3
- UPH222 Interior Materials Furniture 3
- SPC103 Oral Communication Skills 3

**Total Credit Hours** 60

# Upholstery Shop Management Short Term Certificate

- UPH183 Special Topics 3
- UPH215 Shop Management and Layout 3
- UPH217 Upholstery Craft and Accessories 3
- UPH222 Interior Materials Furniture 3

**Total Credit Hours** 12

# Upholstery Upholstery Designer Short Term Certificate

- UPH211 Design Interior Furniture & Auto 3
- UPH212 Design Interiors Furniture Lab 3
- UPH213 Design Interiors Auto Lab 3
- UPH214 Design Interior Experimental Lab 3

**Total Credit Hours** 12

# Upholstery Upholstery Fundamentals & Design Short Term Certificate

- UPH111 Upholstery Fundamentals & Design 3
- UPH112 Upholstery Design Furniture Lab 3
- UPH113 Upholstery Design Auto Lab 3
- UPH114 Upholstery Design Experimental Lab 3

**Total Credit Hours** 12

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WELDING

Program Overview
Welding (WDT) is 60 semester hour program combining classroom theory with hands-on practice in the laboratory. Requirements for the certificate of completion include four academic courses totaling 12 semester hours and 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
Welders use hand-held or remotely controlled equipment to join or cut metal parts, and to fill holes, indentations, or seams in metal products. Welders may work outdoors, often in inclement weather, or indoors, sometimes in a confined area. They may work high off the ground, and they occasionally must lift heavy objects and work in awkward positions. According to the Bureau of Labor Statistics, the median annual wage for welders was $40,240 in May 2017. Employment of welders is projected to grow about six percent from 2016 to 2026, about as fast as the average for all occupations. The nation’s aging infrastructure will require the expertise of welders, to help rebuild bridges, highways, and buildings.

Awards

Certificate
Welding

Short Term Certificate
Construction Welding
Consumable Welding
Industrial Welding
Welding Certification w/ Pipe Cert.

Program Contacts
Mr. Chris Ingram, Instructor
Main Campus
334-514-1361
chris.ingram@istc.edu

Mr. Chris Wells, Instructor
Tutwiler Instructional Center
334-514-3587
chris.wells@istc.edu

Mr. Billy Wesson, Instructor
Draper Instructional Service Center
334-514-8151
billy.wesson@istc.edu

Estimated Program Length
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Certificate of Completion</td>
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Required Program Courses
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<td>WDT109</td>
<td>SMAW Fillet/PAC/CAC</td>
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<td>WDT110</td>
<td>Industrial Blueprint Reading</td>
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<td>GMA/Flux Cored Arc Welding</td>
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<td>WDT120</td>
<td>SMAW Groove</td>
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<td>SMAW Fillet/OFCC Lab</td>
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<td>WDT157</td>
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<td>WDT228</td>
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<tr>
<td>WDT258</td>
<td>Certification Lab</td>
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<td>WDT268</td>
<td>GTAW Lab</td>
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Required Academic Courses
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<thead>
<tr>
<th>Course</th>
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<th>Credit Hours</th>
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<tr>
<td>DPT100</td>
<td>Introductory Computer Skills I</td>
<td>3</td>
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<tr>
<td>ENG100</td>
<td>Vocational Technical English</td>
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</tr>
<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
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Elective Courses
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<td>Special Topics</td>
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<tr>
<td>WDT181</td>
<td>Special Topics</td>
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</tr>
<tr>
<td>WDT219</td>
<td>Welding Inspection and Testing</td>
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WDT257 SMAW Carbon Pipe Lab 3  
WDT280 Special Topics 3  
WDT281 Special Topics 3  
WDT282 Special Topics 3  

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

**Welding Certificate of Completion**

**First Semester**
- WDT108 SMAW Fillet/OFC 3
- WDT109 SMAW Fillet/PAC/CAC 3
- WDT122 SMAW Fillet/OFC Lab 3
- WDT123 SMAW Fillet/PAC/CAC Lab 3
- MAH101 Vocational Technical Mathematics I 3

**Second Semester**
- 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
- ENG100 Vocational Technical English I 3

**Third Semester**
- WDT110 Industrial Blueprint Reading 3
- WDT120 Shielded Metal Arc Welding Grooves 3
- WDT125 SMAW Groove Lab 3
- WDT223 Blueprint Reading for Fabrication 3
- SPC103 Oral Communication Skills 3

**Fourth Semester**
- WDT218 Certification 3
- WDT228 Gas Tungsten Arc Welding 3
- WDT258 Certification Lab 3
- WDT268 Gas Tungsten Arc Lab 3
- DPT100 Vocational Technical Computers 3

**Total Credit Hours** 60

**Welding 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

**Total Credit Hours** 12

**Welding 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

**Total Credit Hours** 12

**Welding 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** 12

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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.

ABR122 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 various 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)
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.

**Prerequisite:** As required by program.

**ABR258 Heating & AC in Collision Repair (1/2/3)**

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.

**Prerequisite:** As required by program.

**ABR261 Restraint Systems (1/2/3)**

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.

**Prerequisite:** As required by program.

**ABR265 Paint Defects and Final Repair (1/2/3)**

This course introduces students to methods of identifying paint defects, causes, cures, and final detailing. Students learn to troubleshoot and correct paint imperfections.

**Prerequisite:** As required by program.

**ABR266 Aluminum Welding in Collision Repair (1/2/3)**

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.

**Prerequisite:** As required by program.

**ABR269 Estimating and Damage Analysis (1/2/3)**

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 hand written or computerized damage report/estimate.

**Prerequisite:** As required by program.

**ABR281 Special Topics in Auto Body (0/3/3)**

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 (AUM)**

**AUM101 Fundamentals of Automotive Technology (1/2/3)**

This course provides basic instruction in fundamentals of automotive technology. CORE.

**Prerequisite:** As required by program.

**AUM112 Electrical Fundamentals (1/2/3)**

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

**Prerequisite:** As required by program.

**AUM 121 Braking Systems (1/2/3)**

This course provides instruction in automotive technology 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

**Prerequisite:** As required by program.

**AUM 122 Steering and Suspension (1/2/3)**

This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of steering and suspension. CORE

**Prerequisite:** As required by program.

**AUM 124 Automotive Engines (1/2/3)**

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

**Prerequisite:** As required by program.

**AUM 130 Drive Train and Axles (1/2/3)**

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.

**Prerequisite:** As required by program.

**AUM 133 Motor Vehicle Air Conditioning (1/2/3)**

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.

**Prerequisite:** As required by program.

**AUM162 Electrical and Electronic Systems (1/2/3)**

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

**Prerequisite:** As required by program.

**AUM 182 Special Topics (0/2/2)**

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. CORE

**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.

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**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, the 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 181 Special Topics in Barbering**  (1/0/1)
*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 set backs, 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.

**Commercial Food Service**

**CFS101 Orientation to the Hospitality Profession** (3/0/3)
*Prerequisite: As required by program.*
This course introduces various facets and opportunities within the hospitality profession. The intent is for students to gain a
broad base of information relative to the hospitality industry. Emphasis is placed on having students comprehend their role as a hospitality industry professional. Topics include an overview of the hospitality profession, knowledge and skills necessary for successful employment, the impact of the hospitality profession on society, issues that impact on various segments of the hospitality profession, and emerging trends. CORE

CFS102 Catering (2/0/2)
Prerequisite: As required by program.
This course includes the theory and practice of operating a catering business. Topics include food production and management related to catering and other special services. Upon completion, the student will have a working knowledge of the principals involved in operating a catering business.

CFS110 Basic Food Preparation (3/0/3)
Prerequisite: As required by program.
In this course students acquire fundamental knowledge and skills in preparing a variety of basic foods. Specific topics include safety, the history of food service, professional standards of conduct and ethics, credentialing, the kitchen brigade, tools, and techniques for preparing various types of food items.

CFS111 Foundations in Nutrition (3/0/3)
Prerequisite: As required by program.
This course focuses on nutrition and meal planning in relation to the food preparation industry. Topics include the science of food and nutrition, essential nutrients and their relation to the growth, maintenance and functioning of the body, nutritional requirements of different age levels and economic and cultural influences on food selection. Upon completion of this course, students will be able to apply the basic principles of meal planning. CORE

CFS112 Sanitation, Safety and Food Service (2/0/2)
Prerequisite: As required by program.
This course introduces the basic principles of sanitation and safety to food service handling including purchasing, storing, preparation and serving. Specific topics include the dangers of microbial contaminants, food allergens and foodborne illness, safe handling of food, the flow of food, and food safety management systems. At the conclusion of this course students will be prepared to test for ServSafe® certification. The content of this course is foundational for all culinary arts classes. CORE

CFS113 Table Service (2/0/2)
Prerequisite: As required by program.
This course is a guide for the modern wait staff. Topics include laying the cover, taking the order, surveying of different styles of table service from the casual to the very formal, tabulating and presenting the bill, and busing and turning the table. Upon completion of this course, students should be able to demonstrate proficiency in the art of table service.

CFS114 Meal Management (1/2/3)
Prerequisite: As required by program.
This course covers the principles of meal management. Topics include menu planning, food selection, recipe standardization, food preparation, and meal service for all phases of food service. Upon completion of this course, students will be able to apply efficient work habits, sanitation and safety in the kitchen.

CFS115 Advanced Food Preparation (1/2/3)
Prerequisite: As required by program.
In this course, students apply food preparation and meal management skills in all areas of food service. Emphasis is placed on management and technical skills needed to operate a restaurant. Upon completion, students will develop advanced skills in food preparation and meal management.

CFS120 Basic Food Preparation Lab (0/2/2)
Prerequisite: As required by program.
In this course students apply fundamental knowledge and skills in preparing a variety of basic foods. Specific topics include safety, the history of food service, professional standards of conduct and ethics, credentialing, the kitchen brigade, tools, and techniques for preparing various types of food items. At the conclusion of this course students will demonstrate basic food preparation skills. CORE

CFS182 Special Topics in CFS (0/3/3)
Prerequisite: As required by program.
These courses provide specialized instruction in various areas related to the culinary arts industry. Emphasis is placed on meeting students' needs.

CFS199 Healthy Cooking (1/0/1)
Prerequisite: As required by program.
The student will become educated in the principles of sound nutrition for the prevention of disease. Basic principles of nutrition will be discussed along with practical aspects of nutrition which will be applied through cooking demonstrations by the instructor.

CFS251 Menu Design (2/0/2)
Prerequisite: As required by program.
This course introduces menu design. Topics include development of standardized recipes, layout, nutritional concerns, product utilization, demographics, and customer needs. Upon completion, students should be able to write, lay out, and produce effective menus for a variety of hospitality settings.

Computer Science

DPT 100 Introductory Computer Skills I (3/0/3)
Prerequisite: As required by program
This course places emphasis on the usage of personal computers and software applications for personal and workplace use. Topics include impact of computers in business and industry, word processing, spreadsheets, ethical issues, database, and related concepts. Upon completion, the student will be able to demonstrate computer skills as applied to occupational-related fields.

DPT 103 Introductory Computer Skills II (3/0/3)
Prerequisite: As required by program
This course is designed to focus on further development of computer skills. The course will generally use software packages appropriate to occupational programs and may include such topics as word processing, database, basic graphics, spreadsheets or other features typically needed in the field. Upon completion, the student will be able to demonstrate proficiency by the completion of appropriate assignments and occupation-specific applications.

### Cosmetology

#### COS111 Introduction to Cosmetology  
**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 Chemical Services Lab  
**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  
**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. **CORE**

#### COS114 Chemical Services Lab  
**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. **CORE**

#### COS115 Hair Coloring Theory  
**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 be able to identify all classifications of hair coloring and the effects on the hair. **CORE**

#### COS116 Hair Coloring Lab  
**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. **CORE**

#### COS 117 Basic Spa Techniques  
**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, and skin care products, hair and its related structures, disease and disorders. **CORE**

#### COS118 Basic Spa Techniques Lab  
**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. **CORE**

#### COS123 Cosmetology Salon Practices  
**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. **CORE**

#### COS133 Salon Management Technology  
**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. **CORE**

#### COS141 Applied Chemistry for Cosmetology  
**Prerequisites: None**
This course focuses on chemistry relevant to professional hair and skin care products, hair and its related structures, permanent waving, chemical hair relaxing, and hair coloring. Topics include knowledge of basic chemistry, pH scale measurements, water, shampooing and cosmetic chemistry,
physical chemical changes in hair structure. Upon completion, the student should be able to define chemistry, types of matter, and describe chemical and cosmetic reactions as related to the hair and skin structure.

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.

COS143 Specialty Hair Preparation Techniques (1/2/3) 
Prerequisite: As required by program.
This course focuses on the theory and practice of hair designing. Topics include creating styles using basic and advanced techniques of back combing, up sweeps and braiding. Upon completion, the student should be able to demonstrate the techniques and procedures for hair design.

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.

COS145 Hair Shaping Lab (0/3/3) 
Prerequisite: As required by program.
This covers the study of the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the students should be able to demonstrate the techniques and procedures for creating hair designs using safety and sanitary precautions.

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.

COS158 Employability Skills (3/0/3) 
Prerequisite: As required by program.
This course provides the study of marketable skills to prepare the student to enter the world of work. Emphasis is placed on resumes, interviews, client and business relations, personality, computer literacy and attitude. Upon completion, the student should be prepared to obtain employment in the field for which they have been trained.

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 complete successfully the required State Board of Cosmetology examination and entry-level employment.

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 cosmetology. 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 driveshift, 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 bend electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to 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.

**English**

**COM103 Introductory Technical English II**  (3/0/3)  
*Prerequisite: As required by program.

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and developing interpersonal communication skills with employees and the public with substantial focus on occupational performance requirements and industry standards. Upon completion students should be able to prepare effective, short, and job-related written and oral communications. NCA

**ENG100 Vocational Technical English**  (3/0/3)  
*Prerequisite: As required by program.

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling with substantial focus on occupational performance requirements. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace.

**ENG131 Applied Writing**  (3/0/3)  
*Prerequisite: As required by program.

This course is a study of various types of written documents required in scientific, technical, and other specialized fields. Emphasis is placed on the production of such documents, including research, documentation, graphical displays, the abstract, appropriate diction, grammar, punctuation, and audience. Students will demonstrate the ability to produce effective reports, letters, memoranda, and similar documents.

**Heating, Ventilation, and Air Conditioning**

**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. Upon 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 requirements, 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
Industrial Systems 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 the basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion,
students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment. CORE

INT118 Fundamentals 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 preventative 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 troubleshooting 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/Industrial 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 provides an introduction to 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 and 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 transportation. 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.

LGT271 Supply Chain Analytics (3/0/3)
Prerequisite: As required by program
This course provides an introduction to 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.

Masonry

MAS111 Masonry Fundamentals (2/1/3)
Prerequisite: As required by program
This course is designed as an introduction and orientation to masonry construction, specifically to brick and block construction. Topics include the identification and safe use of tools, equipment, and masonry materials. Upon completion, the students should have a general knowledge of masonry. CORE

MAS121 Brick/Block Masonry Fundamentals II (1/2/3)
Prerequisite: As required by program
This course is designed to provide the student with basic fundamental skills for working with brick and block. Emphasis is placed on the importance of proper work site set up, dry bonding, head and bed joints, leveling, plumbing, and straight edging. Upon completion, students should have requisite skills meeting entry level standards. CORE.

MAS131 Brick/Block Masonry Fundamentals II (1/2/3)
Prerequisite: As required by program
This course is designed to provide the student with a working knowledge of laying bricks and blocks. Emphasis is placed on set up, layout, building corners, and laying to the line. Upon completion, students should have entry level skills in brick and block masonry. CORE

MAS151 Brick/Block Masonry Fundamentals III (1/2/3)
Prerequisite: As required by program
This course is designed to provide the student with a working knowledge of the various methods of laying bricks and blocks. Emphasis is placed on hanging a speed pole, layout, building corners, and laying to a line. Upon completion the students should have entry level skills in basic bonds, tooling and finishing joints, toothing corners, and cutting masonry units. CORE.

MAS161 Block Masonry Lab (0/3/3)
Prerequisite: As required by program

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This course provides practical application of block laying techniques. Emphasis is placed on developing skill in laying block, constructing and reinforcing walls, joints, and sample panels. Upon completion, the student should be able to construct block walls to entry-level standards. CORE.

**MAS162 Brick Masonry Lab**  
*Prerequisite: As required by program*  
This course provides practical application of advanced brick laying techniques. Emphasis is placed on developing skill in laying brick, constructing and reinforcing walls, joints, and sample panels and prisms. Upon completion, the student should be able to construct brick walls to entry-level standards. CORE.

**MAS171 Residential/Commercial Masonry**  
*Prerequisite: As required by program*  
This course provides application of residential and commercial techniques for reading plans, estimating costs, and constructing composite walls. Emphasis is placed on estimating material and labor cost based on specifications contained in working drawings or blueprints and on bonding composite walls. Upon completion, the student should be able to demonstrate entry level skills in print reading and cost estimation as well as composite wall construction and bonding.

**MAS181 Special Topics in Masonry**  
*Prerequisite: As required by program*  
This course provides specialized instruction in various areas related to the industry. Emphasis is placed on meeting students’ needs.

**MAS211 Stone Masonry**  
*Prerequisite: As required by program*  
This course provides an introduction to stone and decorative masonry techniques, fireplace construction, and repair and restoration of brick structures. Topics include brick arches, fireplace construction, stone materials, laying techniques, moisture control, wall supports, joints, coping sample panels, and cultured stone. Upon completion, the student should be able to identify appropriate materials and techniques for the stated topics.

**MAS221 Specialized Masonry**  
*Prerequisite: As required by program*  
This course provides an introduction to geographically specific masonry techniques. Topics include panel construction, acid brick, refractories, structural glazed tile, glass block, passive solar design, barrier walls and hollow metal frames. Upon completion, students should be able to define and recognize types and applications of specialized techniques and materials as well as identify proper installation and laying techniques.

**MAS231 Basic Cement Masonry**  
*Prerequisite: As required by program*  
This course is designed to introduce the various types of cement masonry, concrete requirements, flat work, estimating, and finishing methods. Emphasis is placed on estimating concrete for small to medium size projects, flat work, form work, footings, and the correct tools and methods of finishing and placing.

**MAS251 Stone Masonry Lab**  
*Prerequisite: As required by program*  
This course provides practical application of stone and decorative masonry techniques, repair and restoration of brick structures, and brick arches. Emphasis is placed on developing skill in performing these techniques. Upon completion, the student should be able to lay stone, repair and restore brick structures, and build brick arches to entry-level standards.

**MAS252 Fireplace Construction**  
*Prerequisite: As required by program*  
This course provides practical application of techniques for constructing fireplaces and other decorative work. Emphasis is placed on developing skill in constructing decorative masonry techniques. Upon completion, the student should be able to construct a variety of fireplaces to entry-level standards.

**MAS253 Brick Arches Lab**  
*Prerequisite: As required by program*  
This course provides practical application of techniques of constructing brick arches and other decorative work. Emphasis is placed on developing skill in constructing decorative masonry techniques. Upon completion, the student should be able to construct brick arches and other decorative masonry techniques to entry-level standards.

**MAS261 Specialized Masonry**  
*Prerequisite: As required by program*  
This course provides practical application of geographically specific masonry techniques. Emphasis is placed on developing skill in laying and installing panel construction, acid brick, refractories, structural glazed tile, glass block, passive solar design, barrier walls, and hollow metal frames. Upon completion, students should be able to perform, to entry-level standards, appropriate techniques for selection, laying, and installation of geographically specific masonry applications.

**MAS 271 Basic Cement Masonry Lab**  
*Prerequisite: As required by program*  
This course introduces basic concrete masonry, including the use of various tools, estimating, and placing concrete. Emphasis is placed on correct methods used in placing concrete, finishing concrete, placing forms, and proper care of concrete tools. Upon completion of this course, the student should demonstrate entry-level skills for placing, finishing, estimating, and curing concrete.

**MAS272 Advanced Cement Masonry**  
*Prerequisite: As required by program*  
This course continues skill building in concrete masonry. Emphasis is placed on correct methods used in placing concrete, finishing concrete, placing forms, and maintenance of concrete tools. Upon completion of this course, the student should be able to demonstrate increased speed and accuracy in building structures covered in this course.

**MAS282 Special Topics in Masonry**  
*Prerequisite: As required by program*  
This course provides application of residential and commercial masonry techniques, fireplace construction, and repair and restoration of brick structures, and composite walls. Upon completion, the student should be able to construct a variety of fireplaces to entry-level standards.

**Prerequisite:** As required by program
Prerequisite: As required by program
This course provides specialized instruction in various areas related to the industry. Emphasis is placed on meeting students’ needs.

Mathematics

MAH 101 Introductory Mathematics I (3/0/3)
Prerequisite: As required by program
This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include business and industry related arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific occupational areas of study. NCA

MTH 116 Mathematical Applications (3/0/3)
Prerequisite: As required by program
This course provides practical applications of mathematics and includes selected topics from consumer math and algebra. Some topics included are integers, percent, interest, ratio and proportion, metric system, probability, linear equations, and problem solving.

MTH 246 Mathematics of Finance (3/0/3)
Prerequisite: As required by program
This course explores mathematical applications relevant to business practices. Types covered include simple and compound interest, credits, trade and bank discounts, annuities, amortization, depreciation, stocks and bonds, insurance, capitalization, and perpetuities. This course does not meet the general core requirement for mathematics.

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, symbolic, 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.

Orientation

ORT 100 Orientation for Career Students (1/0/1)
Prerequisite: As required by program
This course is designed to introduce the beginning student to college. College policies and regulations are covered as well as stress management, resume preparation, job application procedures, and employment interviewing techniques.

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)
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.

Psychology  

PSY270 Business and Industrial Psychology (3/0/3)  
**Prerequisite:** As required by program  
This course is a study of interpersonal relations in the working environment, interpersonal communications, and techniques for selection and supervision of personnel.

Speech  

SPC 103 Oral Communication Skills (3/0/3)  
**Prerequisite:** As required by program  
This course introduces the basic concepts of interpersonal communication and the oral communication skills necessary to interact with co-workers and customers, and to work effectively in teams. Topics include overcoming barriers to effective communication, effective listening, applying the principles of persuasion, utilizing basic dynamics of group discussion, conflict resolution, and positive communication patterns in the business setting. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, develop a businesslike personality, and effectively present themselves before co-workers and the public.

SPC 106 Fundamentals of Oral Communication (3/0/3)  
**Prerequisite:** As required by program  
This is a performance course that includes the principles of human communication: intrapersonal, interpersonal, and public. It surveys current communication theory and provides practical application.

Upholstery  

UPH111 Upholstery Fundamentals & Design (3/0/3)  
**Prerequisite:** As required by program  
This course is designed to introduce the student to a working knowledge of upholstery techniques and hands-on experience using the fundamentals of Upholstery Design. Emphasis is placed on safety, upholstery terminology, housekeeping, tools, equipment, minor sewing machine repair, a brief history of
furniture styles, color, fabrics, woods, and an introduction of principles and elements of furniture/automotive design. Upon completion the student should be able to cite the principles and elements of design and apply upholstery techniques in all areas specified to complete requirements of this course. CORE.

UPH 112 Upholstery Design Furniture Lab (0/3/3) 
Prerequisite: As required by program
This course is designed to teach the student specific techniques and applications in furniture design foundations. Emphasis is placed on proper use, care, storage, maintenance of tools, equipment and proper application of design techniques working with the function, beauty and individuality of a good design plan or foundation. Upon completion, students should be able to identify tools and equipment and apply foundations techniques including tying springs, applying stuffing and padding, and using a variety of materials to achieve a good design plan. CORE.

UPH113 Upholstery Design Auto Lab (0/3/3) 
Prerequisite: As required by program
This course provides an introduction to automotive techniques and design with application or live work projects. Emphasis is placed on the application of design techniques including working with springs, door panels, headliners, auto seating, rear shelves, carpet, wind lace, arm rests, and dashboards. Upon completion, students should be able to perform hands-on upholstery techniques including design to automotive upholstery. CORE

UPH114 Upholstery Design Experimental Lab (0/3/3) 
Prerequisite: As required by program
This course is an experimental lab in Upholstery Design. It consists of demonstrations by the instructor and experimentation by students. Upon completion, students should be able to demonstrate, with appropriate safety precautions, the basic principles of Upholstery Design.

UPH121 Correlating Decorative Elements (3/0/3) 
Prerequisite: As required by program
This course is designed to effectively bring together the elements and principles of design while allowing the students to specialize in automotive, furniture or both areas including job planning and decorative techniques. This course covers job planning, layouts, correlation of decorative elements including simple floor plans, color, draperies, wall coverings with special emphasis on diamonds, channeling, and decorative trims. Upon completion, students should be able to plan layouts, identify and apply the principles and elements of design, and select decorative trims that blend with the décor. CORE

UPH122 Decorative Elements Furniture Lab (0/3/3) 
Prerequisite: As required by program
This course is designed to teach the student to use a layout in computing yardage and to plan decorative techniques to be used with furniture projects. Topics include layouts, planning, redesigning, use of decorative trims, yardage charts and accessories necessary to achieve a harmonious design. Upon completion, students should be able to execute plans, compute yardage, redesign furniture, and select decorative techniques and accessories to complete a design. CORE.

UPH123 Decorative Elements Auto Lab (0/3/3) 
Prerequisite: As required by program
This course is designed for instruction in using a layout to compute yardage and in planning decorative techniques which include wind lace, hidden welt, various trims and finishing techniques. Upon completion, the student should be able to compute yardage from a well-planned layout and apply decorative techniques to the finished automotive upholstery project. CORE

UPH124 Decorative Elements Experimental Lab (0/3/3) 
Prerequisite: As required by program
This course is an experimental lab in decorative elements. It consists of demonstrations by the instructor and experimentation by students. Upon completion, students should be able to demonstrate the basic principles of planning, measurement, and the use of appropriate decorative techniques.

UPH181 Special Topics (0/3/3) 
Prerequisite: As required by program
These courses are designed to allow the student to specialize in a particular area of study with minimum supervision in Upholstery/Design application and with evaluation at the instructor's discretion. Emphasis is placed on a topic/project that the student is interested in and may include any automotive, furniture, or related area in Upholstery/Design. Upon completion, the student should be able to work with minimum supervision and execute the necessary techniques to finish a live work project of their choice.

UPH183 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 supervision in Upholstery/Design application and with evaluation at the instructor’s discretion. Emphasis is placed on a topic/project that the student is interested in and may include any automotive, furniture, or related area in Upholstery/Design. Upon completion, the student should be able to work with minimum supervision and execute the necessary techniques to finish a live work project of their choice.

PHI211 Design Interiors Furniture and Auto (3/0/3) 
Prerequisite: As required by program
This course is designed for instruction in planning interiors that satisfy individual needs in furniture or automobiles using the elements and principles of design. Emphasis is placed on blending styles, specifying interior materials, correlating a color scheme, placing furniture in a room, placing seats in a car or resort vehicle as well as vans and boats. Upon completion, the student will be able to work with a customer on appropriate color schemes, materials, and designs which are appropriate for the lifestyles or needs of the family. CORE

UPH212 Design Interiors Furniture Lab (0/3/3) 
Prerequisite: As required by program
This course is designed for instruction in applying the principles and elements of design when upholstering furniture and to create a unified design. Emphasis is placed on the use of appropriate fabrics, colors, textures, types of furniture,
This course is designed to teach the student to choose the most appropriate interior materials to be used and with furniture. Emphasis is placed on wallpaper, paint upholstery fabrics, drapery fabrics, carpet, paneling, floor coverings, and window treatments. Upon completion, students should be able to utilize interior materials and to advise customers in planning décor.

UPH222 Interior Materials-Furniture (1/2/3)
Prerequisite: As required by program
This course is designed to teach the student to choose the most appropriate interior materials to be used and with furniture. Emphasis is placed on wallpaper, paint upholstery fabrics, drapery fabrics, carpet, paneling, floor coverings, and window treatments. Upon completion, students should be able to utilize interior materials and to advise customers in planning décor.

UPH281 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 supervision in Upholstery/Design application and with evaluation at the instructor’s discretion. Emphasis is placed on a topic/project that the student is interested in and may include any automotive, furniture, or related area in Upholstery/Design. Upon completion, the student should be able to work with minimum supervision and execute the necessary techniques to finish a live work project of their choice.

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. 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 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 with 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 to 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 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 students 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 setup, 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.

**Workplace Skills Enhancement**

**WKO110 NCCER CORE**  
*(2/1/3)*  
*Prerequisite: Determined by instructor.*  
This course is designed to provide students with knowledge and skills related to multi-craft technicians in a variety of fields. Information in this course is based on the National Center for Construction Education and Research (NCCER) core curriculum and prepares students to test for the NCCER credential.
GRADUATION REQUIREMENTS

The Chancellor’s procedures regarding ACCS Board of Trustees Policy No. 715.01 detailing graduation requirements states that

1. In meeting the requirement for a 2.0 cumulative grade point average over all coursework attempted at the College, a course may be counted only once;
2. A student is not required to pay graduation fees or participate in commencement ceremonies in order to be designated a graduate on the transcript;
3. The chief academic officer shall approve the formal award when the student meets all requirements for graduation; and
4. Transcripts will not be provided to a student nor forwarded to any other institution or organization until after the student has fulfilled all financial obligations to the College.

Students needing further information should contact the student services representative at their respective center.

Award Requirements

General Education Core for Certificates:

Area I
Written Composition I & II 2-6 Cr. Hr.
ENG100 Vocational Technical English I 3
ENG101 English Composition I 3
ENG102 English Composition II 3

ENG100 or ENG103 may be substituted in non-degree eligible programs.

Area II
Humanities and Fine Arts 2-6 Cr. Hr.
Speech is required in certificate programs unless provisions for addressing oral communication competencies represent an integral module in a required discipline-specific course.

SPC100 or SPC103 may be substituted only in non-degree eligible programs.

Area III
Natural Science and Math 6 Cr. Hr.
Requirements distributed in mathematics or science or computer science (data processing). One computer science (data processing) course (two are preferred) or demonstrated computer literacy skills, or the integration of computer proficiencies within a required discipline specific course(s).

MAH100, MAH103 or MAH105 may be substituted only in non-degree eligible programs.

Area IV
History/Social/Behavioral Science 3 Cr. Hr.
Minimum Gen Ed Requirements 10-18 Cr. Hr.

Area V
Maximum Gen Ed Core, Technical Concentration, and Electives 42 Cr. Hr.
Courses appropriate to the degree requirements, occupational or technical specialty requirements, core courses, and electives.

Maximum Program Semester Credit Hours 60 Cr. Hr.

Semester Credit Hour Range by Award 30-60 Cr. Hr.

General Education Core for Short Term Certificates

Area I
Written Composition I and II 0-3 Cr. Hr.

Area II
Humanities and Fine Arts 0 Cr. Hr.

Area III
Natural Science and Math 0-3 Cr. Hr.

Area IV
History, Social/Behavioral Sciences 0 Cr. Hr.
Minimum Gen Ed Requirements 0-6 Cr. Hr.

General Studies Curricula 26 Cr. Hr.

**Area V**

**Maximum Gen Ed Core, Technical Concentration, and Electives** 20-26 Cr. Hr.

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

**Maximum Program Semester Credit Hours** 26 Cr. Hr.

**Semester Credit Hour Range by Award** 9-26 Cr. Hr.

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### Curriculum Listings

#### General Education Courses

**Areas I-II**

**Oral and Written Communication/ Humanities and Fine Arts**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>ENG100</td>
<td>Vocational Technical English</td>
<td>3</td>
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<tr>
<td>ENG101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG102</td>
<td>English Composition II</td>
<td>3</td>
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<tr>
<td>SPC103</td>
<td>Oral Communication Skills</td>
<td>3</td>
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<tr>
<td>SPH106</td>
<td>Fundamentals of Oral Communication</td>
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**Area III**

**Mathematics, Natural/Computer Science**

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<th>Title</th>
<th>Credit Hours</th>
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<td>DPT 100</td>
<td>Vocational Technical Computers</td>
<td>3</td>
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<tr>
<td>MAH101</td>
<td>Introductory Mathematics I</td>
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**Area IV**

**History, Social and Behavioral Sciences**

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<tr>
<td>PSY270</td>
<td>Business &amp; Industrial Psychology</td>
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### Curriculum Listings

#### College Preparatory & Developmental Studies

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<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>MTH098</td>
<td>Elementary Algebra</td>
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<tr>
<td>ORT 100</td>
<td>Orientation for Career Students</td>
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J.F. Ingram State Technical College 2019 – 2020 College Catalog
Students seeking to increase basic literacy skills or to earn a GED may enroll in courses through the Adult Education program. Courses are offered at nine locations including Bibb Correctional Facility, Donaldson Correctional Facility, Draper Instructional Service Center, Elmore Correctional Facility, Frank Lee Community-based Facility, Red Eagle Community-based Facility, Tutwiler Instructional Service Center, the Alabama Therapeutic Education Facility and L.I.F.E. Tech Transition Center. 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.

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

**Course Descriptions**

**ADL020 Math I**

Primary focus is on ratio, proportion and measurement. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL021 Math II**

Primary focus is on understanding work problems with continuing review of previous math criteria. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL022 Math III**

Primary focus is on computation of fractions. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL023 Math IV**

Primary focus is on percent problems. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL024 Math V**

Primary focus is on algebra with continuing attention to whole number problems. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL025 Math VI**

Primary focus is on decimal with continuing attention to whole number problems. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL026 Math VII**

Primary focus is on algebra with continuing attention to appropriate work problems. All instructions and materials are geared toward self-pacing with tutorial assistance.

**ADL027 Math VIII**

Primary focus is on geometry at the Pre-GED level with post-testing on all previous math disciplines. All instructions and materials are geared toward self-pacing with tutorial assistance.
GED levels. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress.

**ADL032 Reading III**  
3 Cr. Hr.  
This basic reading course is designed to help readers improve their comprehension of words, vocabulary, study skills and reading rate. All instructions and materials are at Pre-GED levels. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress.

**ADL033 Reading IV**  
3 Cr. Hr.  
This comprehensive reading course is designed to help readers improve basic comprehension, basic vocabulary, study skills and reading rate. All instructions and materials are at Pre-GED levels. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress.

**ADL034 Reading V**  
3 Cr. Hr.  
This continuing comprehensive reading course is designed to help readers improve basic comprehension, basic vocabulary, study skills, and reading rate. All instructions and materials are at Pre-GED levels. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress. Post-testing is a qualifier at this level.

**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. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress. Post-testing is a continuing qualifier at this level.

**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. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress. At this level post-testing is a final qualifier for the State GED exam.

**ADL037 Reading VIII**  
3 Cr. Hr.  
This final elevated comprehensive reading course is designed to help readers improve comprehension, vocabulary, and reading rate. All instructions and materials are at Pre-GED levels. Materials are structured toward self-pacing with tutorial assistance. Within each semester, the student is frequently assessed to determine progress. At this level post-testing is a final qualifier for the State GED exam.

**ADL056 Basic Writing**  
3 Cr. Hr.  
This course is designed to meet the needs of students with writing deficiencies. Topics include instruction in grammar, usage, mechanics, 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, mechanics, sentence structure, and 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.  
Beginning Language: teaches phonics level language—the alphabet, phonetic sounds, basic word construction and pronunciation. All instructions and materials are at Pre-GED levels. Materials are geared toward self-pacing with tutorial assistance.

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

**ADL083 Language Usage IV**  
3 Cr. Hr.  
Primary focus is on intermediate level language usage. With concentration on punctuation and correct use of punctuation in sentences. All instructions and materials are at Pre-GED levels. Materials are 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. Materials are 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.
STUDENT SUPPORT SERVICES

The purpose of Student Support Services is to identify qualified low-income, first generation college students or physically handicapped students who are enrolled or accepted for enrollment by institutions that are recipients of federal grants, and to provide support services for such students who are pursuing postsecondary education.

Funds from these grants are used to provide services such as instruction, life skills, personal and academic counseling, career guidance, and tutoring necessary for success beyond high school. The goal of this program is to increase the retention and graduation rates of these students.

Additional services such as college career counseling and workshops/seminars with representatives of four-year institutions are designed to assist currently enrolled students to become qualified for, to secure admission to, and receive financial aid for, successful achievement in four year institutions of higher education.

Student Support Services at ISTC is a federally-funded program. Any student or prospective student who is interested in these services may contact an ISTC Student Support Services representative or ask any member of the faculty for more information.

Job Placement Assistance

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

Students are provided the opportunity to evaluate or reevaluate their career/college choices through the placement services provided at J. F. Ingram State Technical College. The Director of Student Service’s office endeavors to monitor each student’s retention, completion, and placement success.

Optional placement of the student in employment, further professional preparation, or transfer to another institution’s programs is a prime objective.

Students interested in placement services should contact their advisor or a student services representative at any J. F. Ingram State Technical College location, or they may write to the Reentry Coordinator at the following address:

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

Special Services Program

ISTC Special Services program provides special education service to eligible students at four designated sites in central Alabama. The designated sites include: Donaldson Correctional Facility, Staton Correctional Facility, Frank Lee Work Release Center, and Tutwiler Women’s Prison.

The 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 in order to meet the needs of incarcerated students and to meet the requirements of the Individuals with Disabilities Education Act (IDEA, Public Law 101-476).

The programs offered are an Alabama High School Diploma including the Alabama Online High School Diploma and the Alabama Occupational Diploma, GED preparation classes, vocational programs at the high school and post-secondary level, transition services for students 90 days prior to release and vocational rehabilitation referrals.

The course offerings are the same educational programs as implemented by the Alabama State Department of Education Course of Study and consistent with the student’s Individualized Educational Program.
PERSONNEL DIRECTORY

Annette Funderburk, President

Brannon Lentz
Dean of Administration

Bill Griswold
Dean of Instruction

Rosie Edwards
Dean of Students

Albright, Ray  Cabinetmaking Instructor
Allen, Julian  Vocational Core Training Assistant
Allen, Tonya  SES Assistant
Anderson, Delicia  AE Instructor
Barnett, Connie  Barbering Instructor
Batie, Jerome  Transition Coordinator
Baynard, Malinda  Student Services Clerk
Bentley, Al  Certification/Training Instructor
Boswell, Inez  AE Instructor
Bridgeman, Josh  Clerk
Brucke, Tim  IT Specialist
Brundage, Julie  SES Assistant
Carr, Brantley  Accounting Coordinator
Carter, Donald  Horticulture Instructor
Caylor, Sandra  Upholstery Instructor
Cherry, Shannon  Instructional Division Clerk
Childress, Daniel  Welding Instructor
Chisum, Woody  Auto Body Repair Instructor
Clem, Frank  AE Instructor
Conger, Kerri  AP Clerk/Receptionist
Cunningham, Jarrod  AE Instructor
Denish, Christine  AE Instructor Aide
Duncan, Hayward  Barbering Instructor
Etheredge, Richard  Small Engine Repair Instructor
Farrior, Ukesha  SES Assistant/Psychometrist
Farris, Doug  Center Director - Bibb
Foshee, Jim  AE Instructor
Foshee, Renee  Clerk
Fox, Amelia  Business Office Director
Gant, Lewis  Electrical Technology Instructor
Gantt, Anne  Cosmetology Instructor
Garner, Ken  Transition Facility Director (ATEF)
Gibbons, Candace  Mathematics Instructor
Gill, LaKerri  Student Services Clerk
Givens, Jeanna  Business Office Specialist
Gregory, Jennifer  AE Instructor
Griffin, Hubert  Information Technology Manager
Gruback, Robert  Welding Instructor
Hale-Phillips, Miranda  AE Instructor
Hall, Jacqueline  SES Assistant
Hamby, Ken  Ind. Systems Technology Instructor
Harris, Ivette  Literacy Assistant
Hinds, Dianne  Transition Assistant
Hodge, William  Tutorial Coordinator
Holloway, Artemas  Logistics Instructor
Hulett, LeShauna  SES Coordinator
Hull, Randy  Diesel Mechanics Instructor
Humphries, Stan  HVAC Instructor
Huskey, Don  Electrical Technology Instructor
Hutton, Melissa  Literacy Assistant
Ingram, Chris  Welding Instructor
Johnson, Allen  Truck Driving Instructor
Jones, Jason  HVAC Instructor
Jones, Kelvin  SES Assistant
Keahy, Terry  Career Technical Assistant
Knight, Larry  SES Assistant
Knox, Gloria  Secretary
LaFrance, Keith  Computer Science Instructor
Lee, Stuart  AE Instructor
Lee III, William  Plumbing Instructor
Lewis, Joyce  Transition Assistant
Lowe, Keith  Carpenter Instructor
Lucas, Eddie  Carpenter Instructor
Manning - Jones, Jasetta  SES Assistant
Marshall, Sandra  AE Instructor
Martin, Marty  Ready to Work Instructor
Matthews, Mark  Transportation/Facilities Coord.
Matthews, Sheree  SES Data Technician
McClellan, Eric  Auto Mechanics Instructor
McDuffie, Jacqueline  Adm. Asst. to the Center Dir.
McKeithen, Coleman  Custodian
McMillian, Grady  Building & Const. Instructor
Milledge, David  Masonry Instructor
Mims, Michael  SES Assistant
Mitchell, Steve  SES Assistant
Montgomery, Malcolm  SSS Director
Moore, Shawn  Auto Mechanics Instructor
Morgan, Jerome  SES Assistant
Nash, Marcus  Career Coach
Nelson, Rueben  Masonry Instructor
Owen, Kimberly  AE Instructor
Owens, Alexis  English Instructor
Owensby, Bonita  Registration/Admissions Asst.
Pittman, Valerie  Office Administration Instructor
Poe, Candace  Speech Instructor
Poole, Matt  Logistics Instructor
Porterfield, LaTonya  Barbering Instructor
Powell, Dorothy  Administrative Assistant
Powers, Jonathan  Job Placement Coordinator
Probst, Julliana  Associate Dean of Instruction
Rasbury, Shane  HVAC Instructor
Richardson, Andrea  Coordinator/Human Resources
Riggins, Bryan  SES Assistant
Roan, Carl  Carpentry Instructor
Roberts, Douglas  Comm. Food Service Instructor
Romine, fawn  Workforce Development Coordinator
Salter, Christopher  Carpentry Instructor
Shedrone, Patricia  AE Instructor
Sims, DaVona  AE Instructor
Smith, Latoshia  Electrical Instructor
Staley, Derek  SES Assistant
Stallworth, Keith  AE Instructor
Strength, Emma  Clerk/Receptionist
Strength, Tim  HVAC Instructor
Thomas, Derek  Assessment Manager
Thompson, John  Plumbing Instructor
Thompson, Phaidra  Tutorial Coordinator
Thornton, Tawanna  Student Services Director
Tubbs, Terence  AE Instructor
Tyson, Daniel  Financial Aid Assistant
Varner, Julie  Administrative Asst. to the President
Vest, Rick  Reentry Director/Tutwiler Center Director
Walker, Sharon  Director of Adult Education
Walters, Enjolique  Financial Aid Director
Ward, Lucian  Student Advisor
Ware, William  AE Instructor
Wells, Christopher  Welding Instructor
Wesson, Billy  Welding Instructor
Williams, Emily  Tutorial Coordinator
Williams, Shandra  Academic Coach
Willoughby, Tonya  AE Data Technician
Wood, James J.  SES Office Technician
Wright, Jason  GED Testing Specialist
Wynn, Martha  Secretary
Young, Joeanne  Career Coach
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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.