AUTOMOTIVE COLLISION TECHNOLOGY TECHNICIAN

MASTER PLAN OF INSTRUCTION
2018 – 2019

Michael Adcock, Instructor

MISSION

The mission of Fort Myers Technical College is to provide high quality career and technical training, in order to prepare students for current and emerging industries, delivered by a professional and caring staff in a positive learning environment.

The School District of Lee County does not discriminate on the basis of gender, race, color, age, religion, sex, sexual orientation, national or ethnic origin, marital status, or disability in the provision of educational programs, activities or employment policies as required by Title IX, Title VI, Title VII, Age Discrimination Act of 1967 and Section 504 of the Rehabilitation Act of 1973, 1992, Americans with Disabilities Act, the Florida Educational Equity Act of 1984 and the Boy Scouts of America Equal Access Act. Questions, complaints, or requests for additional information regarding discrimination or harassment may be sent to: Equity Coordinator, Fort Myers Technical College, 3800 Michigan Ave., Fort Myers, FL 33916, (239) 334-4544.

Lack of English language skills will not be a barrier to admission and participation. The district may assess each student's ability to benefit from specific programs through placement tests and counseling, and, if necessary, will provide services or referrals to better prepare students for successful participation.

FMTC
FORT MYERS TECHNICAL COLLEGE

Fort Myers Technical College
3800 Michigan Avenue
Fort Myers, FL 33916
(239) 334-4544

Automotive Collision Technology Technician

INTRODUCTION

The Automotive Collision Technology Technician program offers the students a firm foundation of knowledge and skills in becoming a successful automotive collision repair and refinishing technician.

PROGRAM MISSION

The mission of the Automotive Collision Technology Technician program is to prepare students for employment in the automotive collision repair and refinishing field. It is also designed to assist those students who wish to update present skills and cross-train in other automotive areas. The program focuses on student and industry needs, and training is constantly updated by the instructor and program advisory committee to keep current with technological changes.

PROGRAM PHILOSOPHY

We believe that competent workers in the high-performance workplace need:

1. Skills in communications, mathematics, critical thinking, teamwork, and effective work habits.
2. Training in emerging concepts and technologies.
3. Relevant work-based learning experience.

We will provide a caring atmosphere that promotes a high degree of student-faculty interaction and fosters development of business and industry partnerships.

PROGRAM CONTENT

- Working knowledge of industry
- Business Management
- Shop Safety
- Prepare vehicles for repairs
- Repair and replace body parts
- Knowledge of math skills
- Demonstrate science skills
- Use oral and written communication
- Perform welding operations
- Prepare surface for refinishing
- Select and apply proper paints
- Solve problems with critical thinking
- Demonstrate vehicle and industry knowledge
- Working knowledge of shop equipment and tools
- Business ethics and legal responsibilities
- Personal money management
- Frame and unibody repair
- Measure frame and unibody repair
- Demonstrate positive work habits

- Entrepreneurship
- Learning finish defects cause and cure
- Prepare and apply body fillers
- Repair fiberglass and plastic components

ESSENTIAL TRAINING TASKS

Physical Requirements

Ability to:

- Reach
- Exhibit high degree of manual dexterity
- Stoop, crouch, and/or bend
- See (near acuity)
- Lift 50 pounds or less
- Communicate with others in verbal and/or written form

Cognitive Requirements

Ability to:

- Collaborate with others
- Make decisions
- Cope with anger/hostility of others in a calm manner
- Cope with moderate to high levels of stress
- Cope with confrontation
- Cope with frustration
- Assist with problem resolution
- Demonstrate a high degree of patience
- Plan and organize daily activities
- Apply common sense understanding to carry out instructions furnished in both written and oral form.
- Tolerate moderate noise level
- Measure accurately
- Work without close, direct supervision
- Perform and complete tasks and priorities
- Perform basic mathematical operations
- Demonstrate mechanical skills

ACCOMMODATIONS

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's IEP or 504 plan or post-secondary student's accommodations plan to meet individual needs to ensure equal access. Post-secondary students with disabilities must self-identify, present documentation, required accommodations if needed, and develop a plan with their post-secondary service provider. Accommodations received in post-secondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology, and special communication systems. Documentation of the accommodations requested and services provided are maintained in a confidential file.

TUITION

Tuition is charged for adult students at a reasonable rate that may vary slightly from year to year and is due prior to the first day of each semester. Current fee information is available from Student Services. Tuition is waived for eligible high school dual-enrolled students. Failure to pay all fees due at the time class begins will result in the student not being able to attend class and/or clinical.

CLASS SCHEDULE

Daytime certificated classes meet Monday through Friday from 8:00 A.M. until 2:30 P.M. This amounts to 30 hours of classroom instruction per week. Lunch breaks are 30 minutes in length.

ATTENDANCE POLICY

In an effort to develop appropriate employability skills, FMTC students are expected to attend all class sessions. As is expected in the workplace, when it is necessary to be absent due to illness or emergency situations, all students are to notify the instructor on or before the date of absence. The student attendance policy for each post-secondary program is consistent with industry standards.

Campus attendance is kept via a computerized system. It is the responsibility of the student to **log in** and **out** in order to receive credit for class time. This allows the school to keep accurate attendance records for the actual number of hours and minutes attended.

All adult students are expected to be in attendance at least 90% of their scheduled hours during each semester. Adult students failing to maintain the 90% attendance standard may not be permitted to continue in their program and may be required to sit out one full semester, unless administration approves to waive 90% standard based on special circumstances.

Absences

A student who is absent for 6 consecutive class sessions, without prior approval and without contact with the instructor, will be withdrawn from enrollment in his/her program. A student withdrawn for absenteeism must petition administration to return. Students exhibiting a pattern of consecutive absences of 4 days may be subject to dismal as determined by a School Intervention Team. School Intervention Team meetings will be held as necessary to attempt to alleviate issues resulting in excessive absences and to counsel the student of possible alternatives and consequences.

Students, who are late for class, including returning late from lunch, must clock in. Students who leave school early must notify their instructor and clock out. This time out of class is recorded as time absent and is counted against the required 90% attendance. Excessive tardies or early departures will be reported to the Student Affairs Specialist and will result in a meeting with the School Intervention Team.

Adult students who know they will be out of school for an extended period of time (4 days or longer) may apply for a Leave of Absence from their program. A Leave of Absence will be granted only once during a twelve month period. STUDENTS WHO EXERCISE A LEAVE OF ABSENCE MAY HAVE TO EXTEND THEIR TIME IN THEIR PROGRAM AND PAY ADDITIONAL FEES.

Leaving Campus During School Hours

Students must notify their instructor when leaving campus early. This is for the safety of students, to accurately track time, and to allow the instructor to best utilize instructional resources.

PLAN OF INSTRUCTIONAL PRACTICES

Teaching Methods

Lecture, demonstration, discussion, group interaction, verbal and written quizzes, skill practice, individualized instruction, computerized tutorials, interactive learning, web-based learning, and online courses are among the teaching methods utilized.

Textbooks, workbooks, projects, journals, reports, simulations, hands-on computer experience, collaborative learning, guest speakers, board examples, field trips, customer service projects, program job shadowing, cooperative on-the-job training, computerized tutorials, computerized assessment, interactive learning, web-based learning, and online courses are used for instruction.

Among the provisions made to allow for individual differences are pre-testing to determine entry level, workbooks and study guides for progress at individual rate, progress grading, individualized instruction, individual project assignments, and referral for basic skills remediation. Curriculum may be adapted to meet the individual needs and individual goals of students.

Safety
A basic outline of safety standards and practices is covered the first week of class along with a continuous implementation of safety principles.

Evaluation
Class performance, quizzes, tests, attendance, portfolio assessments, completion of project assignments, decision-making, work habits, achievement of entry-level competencies, and other methods are used for evaluation.

Work-Based Activities
Work-based learning activities play an integral part of the curriculum of FMTC's career-technical training programs. These activities are planned with two objectives in mind. First, the activity provides students with the opportunity to develop and apply 'real world' experience using the knowledge and skills attained in the program. Second, the activity provides the instructor with objective input from potential employers or customers of program graduates. Each work-based activity has a written instructional plan outlining objectives, experiences, competencies, and evaluation required during the activity.

Work-based activities are program specific and may include:

- Unpaid in-school shop activities to provide customer service opportunities under the direct supervision of the program instructor.
- Unpaid job shadowing experiences that may include in-school or off campus employer-based experiences under the supervision of a qualified employer representative who is working closely with the program instructor.
- Paid or unpaid cooperative training experiences conducted at the employer's work location under the supervision of a qualified employer representative and under the direction of the program instructor.

Cooperative Education
Cooperative training is available for students and coordinated by the instructor and career specialist. Cooperative training if for students who have shown competence in program training that indicates readiness for placement in an on-the-job program. High school students participating in the cooperative job placement program must be in the 12th grade. To be eligible for a cooperative education experience, students must have completed one-half of the required program hours and requirements.

Student may be returned to the program for additional training if they do not function satisfactorily on the job or when the cooperative agreement is terminated at the request of the student, parent, employer, or program instructor. Veterans will be accepted into the program in accordance with the Department of Veterans Affairs approved program.

Additional information regarding cooperative training opportunities may be obtained from the program instructor or career specialist.

Job Shadowing
Job shadowing experiences, or volunteer experiences, are available to students as part of their program training. These experiences are designed to give the student actual hands-on experience doing a variety of related tasks. Length and type of experiences will vary. The program instructor determines appropriateness of the experience. Additional information regarding job-shadowing experiences may be obtained from the program instructor or career specialist.

GRADING PROCEDURE

Teacher Grading Procedure:

Classroom - weekly test	40%
Lab	60%

The grading scale for the county is:

A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

Fort Myers Technical College is a post-secondary institute designed to provide trained individuals to industry. The approved post-secondary program grading requirements must be met if the student is to receive a certificate.

Program Progress
Students are required to complete the program of training within the hours allotted by the state of Florida for completion. Progress must be at a rate that will allow completion of the program with the number of membership hours stated in the Curriculum Frameworks.

Failure to progress at this rate will require the student to meet with the program instructor, career specialist, and an administrator in order to identify an appropriate completion point or to assist the student in selecting a more appropriate training program.

Work Habits
Effective work habits are the cornerstone to successful employment. Students are expected to demonstrate productive work habits during all phases of enrollment. Instructors will work with students who need assistance in this area to improve all overall possibility for successful employment.

Attendance: Attends class, arrives/leaves on time; begins and ends work as expected.
Character: Displays loyalty, honesty, trustworthiness, dependability, reliability, initiative, self-discipline, and self-responsibility; displays a high level of effort and commitment to performing and completing work.
Teamwork: Respects the right of others; respects confidentiality; is cooperative; is assertive; displays a customer service attitude; seeks opportunities for continuous learning; demonstrates mannerly behavior; encourages and facilitates cooperation, pride, trust, and group identity; fosters commitment and team spirit.
Appearance: Displays appropriate dress, grooming, hygiene, and etiquette; wears full regulation uniform.
Attitude: Displays a willingness to cooperate and accept constructive criticism; sets realistic expectations; approaches assignments with interest.
Productivity: Is prepared for class by reading assignments and completing homework; contributes to class discussions; and involvement in lab activities (in other words, no sleeping or daydreaming). Follows safety practices; conserves and maintains equipment and supplies; keeps work area neat and clean; follows directions and procedures; makes up assignments and tests punctually; notifies proper authorities of situations presenting potential safety hazards; does not use or knowingly permits others to use tools and equipment improperly; stays on task and utilizes time constructively.
Organization: Manifests skill in prioritizing and management of time and stress; demonstrates flexibility in adapting to changes.
Communication: Communicates accurate information to others in a professional and courteous manner; displays appropriate nonverbal (eye contact, body language) and oral (listening, telephone etiquette, grammar) skills; asks pertinent questions; listens attentively to others, notifies instructor in advance of absences or tardies.

SATISFACTORY ACADEMIC PROGRESS

In order to receive and continue to receive financial assistance of any type, a student must maintain satisfactory academic progress. The Financial Aid Advisor will require a progress report to be completed by the student's instructor and submitted to the Financial Aid Office prior to each disbursement.

Students are considered to be making Satisfactory Academic Progress (SAP) if they successfully complete their scheduled clock hours, achieve a specific cumulative grade evaluation or grade point average (GPA), and do not exceed the maximum time limits to complete their course of study. Each Student Academic Progress will be checked at 450 clock hours and prior to subsequent disbursements for students enrolled in programs one academic year or greater. Progress will be checked at the half-way point for programs less than one academic year. No SAP is required prior to the first disbursement.

REQUIREMENTS FOR CERTIFICATE

All competencies specified in the Florida Department of Education Curriculum Frameworks for the program must be successfully completed. Successful completion is at least a 75% average in the areas of skills, knowledge, and work habits.

Proficiency in the competency standards listed in the Master Plan of Instruction must be demonstrated.

Students must meet minimum Test of Adult Basic Education (TABE) skill requirements (or be eligible for an exemption) prior to graduation.

In addition to the requirements above, the recommendation of the instructor for certification includes: consideration of employability skills, personal appearance, a willingness to learn and to work, punctuality, cooperative attitude, and appropriate work habits.

Students who exit the program early and have successfully completed each course or the competencies of an Occupational Completion Point (OCP), will be issued a partial certificate. This certificate does not require a student to master the state-mandated basic skills level.

AUTOMOTIVE COLLISION REPAIR & REFINISHING STUDENT DRESS CODE

Students who attend FMTC shall dress in a manner appropriate for the job in which they are receiving training, including any special protective gear and professional uniforms. All clothing must be neither distracting nor offensive and be clean, neat, modest, in good repair, and appropriately sized.

Administration has the final authority for determining whether or not a student's apparel conforms to the dress code. When it is determined that it does not, students will be required to change into clothing which will conform to this code or leave campus. Students may return to campus when they have changed into appropriate clothing.

Dress Code/Uniforms Required: Light blue long or short-sleeved shirt (tucked into pants at waist) button-down, 100% cotton; dark blue long pants, work type; and safety shoes (shoes must cover the ankle).

JOB DESCRIPTIONS

OCP A Automotive Collision Repair & Refinishing Helper/Assistant
Students will be able to do basic shop tasks such as cleaning the vehicle, preparing parts, and shop maintenance.

OCP B Automotive Collision Refinishing Technician
This person works from an estimate to repaint vehicles to match color and finish.

OCP C Non-Structural Damage Repair Technician
This person works from an estimate to repair cosmetic or 'non-structural' damage, such as dents or rust.

OCP D Damage Analysis and Estimating
This person acts as the first point of contact for the customer, assesses damage, and locates and orders parts.

OCP E Automotive Collision Welding, Cutting and Joining
This person works from the estimate to repair damage to vehicles that require welding skills.

OCP F Structural Damage Repair Technician
This person works from the estimate to repair damage to vehicles structurally.

The job of a collision repair technician is to repair damaged vehicles to a 'pre-accident' condition. This is done by replacing or repairing and realigning the exterior panels made of sheet metal, plastic, or fiberglass. In addition, the technician must replace/straighten and align the structural components to bring the vehicle back to factory specifications. To help the technician perform top quality repairs, most shops today are equipped with modern equipment, such as:

- Body and frame machines to hold the vehicle in place while pulling the damaged areas back to specifications.
- Measuring equipment to show the technician which part of the structure is bent and to verify when it is back to factory specifications.
- Special welding equipment to weld structural components made up of high strength, low alloy steel.

- Special equipment to weld plastic panels such as bumpers, interior panels and, on some newer vehicles, even fenders.

The job of the automotive refinish technician is to restore the finish of the repaired vehicle back to the factory finish.

Automobiles of today come from the factory with glamour finishes, using layers of clear coats and pearl coats to give special effects and provide extra durability. The refinish technician will be working with paint products far superior to those used a few years ago. The technician must prepare the repaired areas of the vehicle, mask off adjacent panels, prime, sand, and spray the final finish.

TEXTBOOKS

For the most recent book list for the Automotive Collision Technology Technician program, visit FMTC's online bookstore - www.fmtcshop.com.

REQUIRED MATERIALS

- Rubber sanding block 3"x5"
- Small tool box
- 2 Combination locks
- Set of Phillips and flat head screwdrivers
- OSHA approved paint respirator
- Large box dust mask
- Clear safety glasses
- 1 set metric and 1 set standard wrenches
- 1 set 3/8 metric (8-19 mm) sockets with wrenches
- 1 set 3/8 standard (1/4" – 7/8") sockets, and screw drivers
- Pens, pencils, notebook

PROGRAM OBJECTIVES

See the attached Florida Department of Education Curriculum Frameworks for program objectives and competencies.

Florida Department of Education
Curriculum Framework

Program Title: **Automotive Collision Technology Technician**
Program Type: **Career Preparatory**
Career Cluster: **Transportation, Distribution and Logistics**

PSAV – Career Preparatory	
Program Number	T401300
CIP Number	0647060306
Grade Level	30, 31
Standard Length	1400 hours
Teacher Certification	Refer to the **Program Structure** section
CTSO	SkillsUSA
SOC Codes (all applicable)	49-3021 - Automotive Body and Related Repairers 51-4122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml
Basic Skills Level	Mathematics: 9 Language: 9 Reading: 9

Purpose

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Transportation, Distribution and Logistics career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Transportation, Distribution and Logistics career cluster.

The content includes but is not limited to basic trade skills; refinishing skills; sheetmetal repair skills; frame and unibody squaring and aligning; use of fillers; paint systems and undercoats; related welding skills; related mechanical skills; trim-hardware maintenance; glass servicing; and other miscellaneous repairs. The course content should also include training in communication, leadership, human relations and employability skills; and safe, efficient work practices.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the Automotive industry; planning, management, finance, technical and product skills, underlying principles of technology, labor issues, community issues, and health, safety and environmental issues.

Additional Information relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

Program Structure

This program is a planned sequence of instruction consisting of six occupational completion points.

NOTE: It is recommended that students complete **OCP-A (Automotive Collision Repair and Refinishing Helper/Assistant)** and/or demonstrate mastery of the outcomes in **OCP-A (Automotive Collision Repair and Refinishing Helper/Assistant)** prior to enrolling in additional Automotive Collision Technology Technician courses. **The sequence of OCP's, after completing and/or demonstrating mastery of OCP-A (Automotive Collision Repair and Refinishing Helper/Assistant), is at the discretion of the instructor.**

Benchmarks identified with a designation of HP-I and HP-G are ASE tasks.

When offered at the postsecondary level, this program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44 (3)(b), F.S.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the PSAV program structure:

OCP	Course Number	Course Title	Length	SOC Code
A	ARR0140	Automotive Collision Repair and Refinishing Helper/Assistant	150 hours	49-3021
B	ARR0141	Automotive Collision Refinishing Technician	450 hours	49-3021
C	ARR0312	Non-Structural Damage Repair Technician	300 hours	49-3021
D	ARR0022	Damage Analysis and Estimating	75 hours	49-3021
E	ARR0112	Automotive Collision Welding, Cutting and Joining	75 hours	51-4122
F	ARR0295	Structural Damage Repair Technician	350 hours	49-3021

National Standards

Industry or National Standards corresponding to the standards and/or benchmarks for the Automotive Collision Technology Technician program can be found using the following link:

http://www.natef.org/Achieving-Accreditation/Program-Standards.aspx

Common Career Technical Core – Career Ready Practices

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.

8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.

11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.