**CTE Program Narrative**

**NAME OF COLLEGE: Merced College**

**CONTACT:** Michael Weepers, Aaron Gregory

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**DATE:** 02-06-17

**DIVISION:** Industrial Technology

**FACULTY:** Michael Weepers, Aaron Gregory

**PROGRAM NAME:** Master Auto Technician

**REASON FOR APPROVAL REQUEST (Check One):**

☐ New Program Proposal

☒ Program Revision Proposal (Substantial or TOP Code Changes)

☐Locally Approved

**TYPE OF DEGREE:**

 ☐ Certificate of Achievement

 ☐ Associate of Arts

 ☒ Associate of Science

 ☐ Associate of Arts for Transfer

 ☐ Associate of Science for Transfer

☐ Other

**TRANSFER APPLICABILITY:** Yes ☐ No ☒

**ATTACHMENTS/INFORMATION REQUIRED:**

 Labor/Job Market Data and Analysis

 Advisory Committee Meeting Minutes

 List of Advisory Committee Members

 Employer Survey, if applicable

1. **Statement of Program Goals and Objectives**

*Identify the goals and objectives of the program. For CTE programs, the statement must include the main competencies students will have achieved that are required for a specific occupation. The statement must, at a minimum, clearly indicate the specific occupations or fields the program will prepare students to enter and the basic occupational competencies students will acquire.*

*If the program is selective, describe relevant entry criteria and the selection process for admission to the program. Specify all mandatory fees that students will incur for the program aside from the ordinary course enrollment fee.*

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| The Master Automotive Technician A.S. degree is a Career Technical Education (CTE) degree intended to give students the needed knowledge and skills to enter the workforce.**Program Student Learning Outcomes**A. Apply safe and responsible work habits with the use of automotive service tools and equipment.B. Inspect automotive components and systems for proper operation.C. Collect automotive service and diagnostic information with the use of computerized tools and resources. |

1. **Catalog Description**

*Enter exactly as it will appear in the catalog, including program outcomes. The description must also*

* *Convey the certificate’s goals(s) and objectives*
* *Provide an overview of the knowledge and skills that students who complete the requirements must demonstrate (student learning outcomes)*
* *List all prerequisite skills or enrollment limitations*
* *Mention any risks, such as occupations that are inherently competitive or low-salaried and/or occupational areas where inexperienced graduates are not generally hired.*
* *For CTE programs, the description must list the potential careers students may enter upon completion.*
* *Convey what the student may expect as an outcome*

*If applicable, reference accrediting and/or licensing standards. If there is a widely recognized certification provided by a professional association, specify whether the program will fully prepare completers for the recognized professional certification.*

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| The Master Automotive Technician Associate Science Degree will be awarded upon satisfactory completion of the full program option and graduation requirements. The student must complete the requirements with a minimum grade point of 2.0 in each course required for the degree.**Program Student Learning Outcomes**A. Apply safe and responsible work habits with the use of automotive service tools and equipment.B. Inspect automotive components and systems for proper operation.C. Collect automotive service and diagnostic information with the use of computerized tools and resources. |

1. **Program Requirements**

*The program requirements must be consistent with the catalog description. The number of units, specific course requirements and the sequence of the courses must be coherent, complete and appropriate. Display the program requirements in a table format that includes all courses required for completion of the program (core requirements and required or restricted electives), subtotal of core units, and total program units. For each course, indicate the course department number, course title, and unit value.*

Display of Program Requirements

|  |  |  |
| --- | --- | --- |
| **Core Courses** | **Title** | **Units** |
| AUTO 04  | Automotive Mechanics | 3 |
| AUTO 32  | Wheel Alignment and Suspension | 4 |
| AUTO 33  | Automotive Brake Systems | 4 |
| AUTO 36  | Automotive Manual Transmissions and Drive Trains | 4 |
| AUTO 41  | Automotive Engines | 4 |
| AUTO 42  | Automotive Electrical Systems | 4 |
| AUTO 43  | Automotive Fuel Systems | 4 |
| AUTO 44  | Automotive Air Conditioning, Heating System, Cooling Systems | 4 |
| AUTO 46  | Automatic Transmissions | 4 |
| AUTO 47  | Engine Performance | 2 |
| AUTO 55  | Automotive Emissions Level 1 and 2 Training | 5 |
| AUTO 56  | Advanced Diagnosis and Repair in Automotive Technology | 2 |
| AUTO 63 | Basic Auto Electronics for Technicians | 4 |
| AUTO 66 | Automotive Parts and Service Advising | 3 |
|  | **Total Core Courses** | **51** |

Display of Proposed Sequence

|  |  |
| --- | --- |
| **First Semester** | **Units** |
| Auto 04  | 3 |
| Auto 32 | 4 |
| Auto 33 | 4 |
| Auto 42 | 4 |
| Auto 63 | 4 |
|  |  |
| **Total** | **19** |

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| --- | --- |
| **Third Semester** | **Units** |
|  Auto 44 | 4 |
| Auto 47 | 2 |
| Auto 55 | 5 |
| Auto 56 | 2 |
| Auto 66 | 3 |
|  |  |
| **Total** | **16** |

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| **Second Semester** | **Units** |
| Auto 36 | 4 |
| Auto 41 | 4 |
| Auto 43 | 4 |
| Auto 46 | 4 |
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| **Total** | **16** |

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| --- | --- |
| **Fourth Semester** | **Units** |
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| **Total** |  |

1. **Master Planning** (Background and Rationale)

*Given the stated goals and objectives, address the role the proposed program will fulfill in the college’s mission and curriculum offerings. This discussion may include some history of the program proposal origins, a description of the program purpose, and/or the program’s relevancy for the region and college.*

*The proposal must demonstrate a need for the program that meets the stated goals and objectives in the region the college proposes to serve with the certificate. A proposed new certificate must not cause undue competition with an existing program at another college.*

*If any expenditures for facilities, equipment or library and learning resources are planned, please explain the specific needs in this section.*

*If the program is to be offered in close cooperation with one or more specific employers, a discussion of the relationship must be provided.*

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| The purpose of this A.S. degree program is to give students the option of pursuing an associate’s degree by completing GE requirements and the coursework that has already been approved as a certificate. Many students, especially those who are the first in their family to attend college, wish to receive an A.S. degree instead of a certificate. The modification of the A.S. Master Automotive Technician will not require additional staff, facilities, or funding above what is already needed for the existing programs. |

1. **Need for Program**
	1. Enrollment and Completer Projections

*Address and justify the number of projected students or “annual completers” to be awarded the certificate each year after the program is fully established.*

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| Based on the past completer information (see below), with the new fast track structure of the program, we are projecting 10 degrees and 20 certificates awarded. |
| **Number of Degree and Certificate completers in the following programs** | Degrees | Certificates | **Need the data listed to the right for each course listed below** | FTEs generated (incl Summer) | Unduplicated head count in each color grouping (incl summer) (at Census) | Duplicated Head Count (incl Summer) (at Census) | Total number of sections offered (incl summer) | Total weekly student contact hours (WSCH) generated (excl Summer) | Total number of students enrolled (at census) Not counting Summer |
| **Automotive** |   |   | **Automotive** | **Automotive** | **Automotive** | **Automotive** | **Automotive** | **Automotive** | **Automotive** |
| A.A. - Automotive Technology (09000.AA) | 4 |   | Auto 4 | 16.1 |  | 161 | 6 | 483 | 161 |
| A.A. - Master Auto Technology (09003.AA) | 1 |   | Auto 32 | 7.4 |  | 37 | 2 | 222 | 37 |
| Suspension and Brakes (09004.CL) |   | 5 | Auto 33 | 5 |  | 25 | 1 | 150 | 25 |
| Master Auto Technology (09003.CT) |   | 3 | Auto 36 | 4.8 |  | 24 | 1 | 144 | 24 |
| Transmissions (09006.CL) |   | 3 | Auto 42 | 4.8 |  | 24 | 1 | 144 | 24 |
| Engine Performance (09002.CL) |   | 3 | Auto 43 | 3 |  | 15 | 1 | 90 | 15 |
| Body and Fender (09001.CL) |   | 2 | Auto 46 | 6.4 |  | 24 | 1 | 192 | 24 |
|   | **Total** | 21 | Auto 47 | 2.93 |  | 22 | 1 | 88 | 22 |
|  |  |  |  |  |  |  |  |  |  |

* 1. Labor Market Information (LMI)

*Summarize the Labor Market Information (LMI) and employment outlook (Including citation for the source of the data) for students exiting the program.*

*Enter table or chart as a separate attachment.*

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| **Investment is targeting …** | **TOP Code(s)** | **Program Title** |
|  - Enter selected TOP codes and Program Titles | 94800 | Automotive Technology |
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|   |   |
| **Geography - The program identified specifically targets the labor market need for trained workers in…** |
|  - Select a region/subregion or a single county geography using the drop down lists embedded in the green or blue cell. | **Region/Subregion list** | **County list** |
|  - North CV | n/a |
|   |   |
| **Demand -** the program(s) prepare students to work in the following occupations… | **Supply -** On average, how many awards (certificates and degrees) area conferred by community colleges and other post-secondary institutions in the region/county identified? |
|
|   | **SOC Code** | **Occupational Title** | **Annual Openings** | **Institution Type** | **# of Awards Conferred (Annual Average)** |
| 1 | 49-3023 | Automotive Service Technicians and Mechanics | 110 | Community Colleges | 69 |
| 2 |  |  |   | Other Post-secondary Institutions | 0 |
| 3 |  |  |   |  |   |
| 4 |  |  |   |  |   |
| 5 |  |  |   |  |   |
| 6 |  |  |   | **Summary of Data Entered:** |   |

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* 1. Employer Survey (if applicable)

*When strong LMI data is not available, an employer survey may be submitted. Provide a copy of the survey, including the number of those surveyed, number of responses, and a summary of the results. The survey must address the extent to which the proposed degree or certificate will be valued by employers.*

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1. **Place of Program in Curriculum/Similar Programs**

*Review the college’s existing program inventory, then address the following questions:*

* *Do any active inventory records need to be made inactive or changed in connection with the approval or the proposed program? If yes, please specify.*
* *Does the program replace any existing program(s) on the college’s inventory? Provide relevant details if this program is related to the termination or scaling down of another program(s).*
* *What related programs are offered by the college?*

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| The Automotive Program is being restructured to allow students to achieve stackable certificates based on a sequence of semesters completed. In addition, the program has been changed to a fast track block schedule to allow completion of entire program within 3 semesters. |

1. **Similar Programs at Other Colleges in Service Area**

*List similar programs offered at other colleges within the Central/Mother Lode Region that may be adversely impacted. Enter ‘none’ if there are no similar programs.*

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| --- | --- |
| **College** | **Program** |
| none |  |
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**Supporting documentation required**

**Labor Market Information**

*In a separate attachment, provide current Labor Market Information showing that jobs are available for program completers within the local service area. Statewide or national LMI may be included as supplementary support but evidence of need in the specific college service area or region is also necessary.*

**List of Members of Advisory Committee**

*This list must include advisory committee member names, job titles, and affiliations.*

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| **Name** | **Title** | **Affiliation** |
| Cory Ruiz | Owner | Hansen’s Tire |
| Michael Leap | Service Director | Razzari Auto Group |
| David Woodall | Service Manager | Merced Honda |
| William Thomas | Enforcement Unit Manager | Cal. Bureau of Auto Repair |
| Gary Maxwell | Automotive Instructor | Merced High School |
| Chris Lacey | Automotive Instructor | Livingston High School |
| Robert Hiser | Collision Repair Instructor | Merced College (adjunct) |
| Donald Hoornaert | Automotive Instructor | Merced College (adjunct) |
| Susan Weston | Service Manager | McAuley Motors |
| Ryan Freeman | Master Auto Technician | McAuley Motors |
| Jesus Lopez Mendoza | Automotive Student | Merced College |
| Luis Soto | Owner | Lalo’s Auto Repair |
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**Recommendation of Advisory Committee** (Meeting Minutes)

*In a separate attachment, provide minutes of the advisory committee meetings at which the program was discussed and approved, with relevant areas highlighted, as well as a summary of the advisory committee recommendations.*

Automotive Advisory Committee Meeting Minutes

Wednesday, November 9th 2016

Members present: Bob Hiser, Gary Maxwell, Mike Weepers, Chris Lacey, Bill Thomas, Don Hoornaert, Aaron Gregory, Luis Soto, Jesus Lopez-Mendoza, Ryan Freeman, Mike Leap, Cory Hansen, Susan Weston, and guest speaker Autumn Gardia (Workplace Internship Network).

1. **Introductions of members**: All members of the committee were introduced by Aaron Gregory.
2. **Workplace Internship Network**: Autumn Gardia, Director of Special Projects and Grants who manages Merced Colleges Workplace Internship Network (WIN) presented to the committee in an effort to introduce the internship program and garner relationships with employers of the committee. Autumn oversees internship development for 7 CTE programs on Campus. Now that the automotive program has been restructured into a fast track program, Autumn will be working with the dept. to organize paid internships for students completing the program. Autumn also works with WorkNet through their on the job training program which can provide up to 50% intern salary for students that meet the criteria.
3. **Consent to Accept Minutes:** Motion to approve by Chris Lacey, second by Don Hoornaert 7:00pm
4. **Curriculum/Projects/Classes:**
	1. IPR: Comprehensive program review has been completed. During this last assessment we found the need to better align the program SLOs with the course SLOs to allow for a more streamlined assessment process. We are currently in the process of accomplishing this.
	2. Curriculum: The cohort based fast track automotive program began in fall 2016. Students enroll in Learning Community classes which are classes grouped together by semester. Students are registered for, and must pass all classes in the learning community or they will be dropped from the learning community. We currently have about 17 students in the Fall 16 learning community, we began with about 23 enrolled, a few didn’t show up and a few dropped out. We expect the attrition rate to decrease in coming years once fast track automotive program becomes more know and we develop better pathways for motivated career minded high school students. Auto 04 has been removed from the learning community group of classes due to problems with credit by exam. Credit for auto 04 would prohibit new students from enrolling in the LC due to the fact that auto 04 was included in the LC. One of the rules for enrolling in the LC is that the student must have not completed any of the classes offered in the LC. Now that auto 04 has been removed, students at schools with 2+2 articulation agreements are advised to pursue CBE for fall 2017. Auto 48 classes are to be eliminated and restructured as Auto 56. Auto 48 classes were special problems lab only classes offered parallel to their related class and allowed students more hands on experience in the area of study. These classes have been consolidated into Auto 56 which will remain a lab only class but will be structured in a way that students will perform hands on lab activities in each main area of automotive technology and focus on entry level skills required by employers to better prepare the students for employment. Auto 56 changes have been initiated and is currently going through the curriculum process. Title 5 course updates are currently going through Curricunet. Aaron has completed a handful and is working on the rest. These are updates performed twice every 5 years to maintain course curriculum alignment to industry. The restructuring of the automotive program into a fast track program has created the need to modify the automotive certificates and degrees to better fit the new program. We are proposing stackable certificates that reflect completed semesters by students. Level 1 would comprise of Auto 04, 32, 33, 42, and 63. Level 2 would add Auto 36, 41, 43 and 46 to the courses completed in Level 1. The Master certificate and degree would add Auto 44, 47, 55, 56, and 66 to the courses completed in Level 2. The committee agreed to the proposed degree and certificate proposals. In addition, the committee agreed to recommend the name change to the Collision Repair degree and certificate and the substitution of Weld 07 in place of Weld 06.
	3. Adjunct instructors are still needed. 1 adjunct has been found and recruited, currently going through the application process. Additional full time faculty has been requested for auto body/beginning auto classes, request was ranked #9 of 20. Position was requested in 2014, skipped in 2015, and will continue to request each year until filled. The entire auto body program has been managed by an adjunct instructor for over 10 years. Due the large amount of money that’s been invested into the auto body program and the fact that the adjunct instructor is coming close to retiring, we need a full time instructor to manage and expand the program.
	4. Open House Nov 18: Area high schools with auto programs were invited to hand pick motivated students to attend and meet with instructors and counselors to familiarize the students with the program, facility, and process for enrollment. Due to transportation issues we had to cancel the open house. As an alternative, Aaron and Mike would visit the local schools to present to the high school classes. Chris Lacey recommended to contact the high school principals to request transportation for the students. If each schools is able to facilitate transportation, we may still be able to offer the open house. Aaron will attempt to contact principals.
	5. Scholarships: Yosemite Corvette Club awarded PowerProbes to two students: Miguel Castillo, and Santiago Chavez. Sunrise Rotary awarded cordless impact driver and DTC scanner to Miguel Castillo. Names of outstanding students were sent fourth based on GPA and performance. The organizations then selected the students. We have proposed to offer scholarship to SEMA to 2 outstanding students. Students can stay with instructors requiring only food and registration expenses. This proposal has been approved by the area dean.
5. **Budget/Equipment**:
	1. Funded Projects: New Hunter Hawkeye alignment system is installed and operational. This unit replaced an outdated inoperative alignment system. Three wall mount Branick strut spring compressors to supplement the single table mount spring compressor we currently have. Replacement/augmented tool room tools with price list of $15,000. Instructor training, Advanced Hybrid Electric Vehicle Training from ARD. Aaron and Mike were trained to use the HV battery equipment that was purchased to maintain the fleet hybrid vehicles. Two coolers for the auto body lab.
	2. $1.5m Basic Skills Transformation Grant: New EIS smog equipment requested. Bill Thomas recommend a lease option rather than purchasing the equipment. This option was considered but there is no long term funding stream available to facilitate the lease option. 12 new Snap-On scan tools requested to replace the Matco determinators that’s are no longer supported by Matco and to augment the Toyota Techstream subscriptions. Additional HEV training requested.
	3. VTEA Requests: Requested budget line for training fleet vehicle upgrades, being a learning environment students damage vehicles and equipment, this budget line would allow us to upgrade the vehicles and equipment back to working order. Requested instructor update training for NATEF compliance. Instructors are required to perform 20 hours of update training per year. Requested additional tools for tool room. Requested budget line for training fleet vehicle replacement purchases. We secured donation of 2005 Mercury Mariner private party donation through Mcauley Motors and donation of 1999 Cadillac deville from a private party. Would like to purchase late model high mileage models from dealers of trade in vehicles that would otherwise go to auction. According to the dealership representatives on the committee this is a possibility. Requested budget line for repair information database subscriptions. Requested budget to update student tool boxes. Current tool boxes are over 20 years old and need to be reorganized to better suit todays vehicles. Requested additional lifts, two in auto body lab and one an auto lab. Waiting on quotes from Midstate Equipment.
	4. Committee suggestions or input for fall VTEA requests: None
	5. District Requests: Electric door openers for auto lab has been funded, waiting for project to be initiated. Requested budget for training vehicle replacement, I replacement per year of approx. $5,000. Requested replacement of student tool boxes with up to date tools for necessary tasks.
6. **Other Business**: None
7. **Motion to Adjourn**: Motion by Chris Lacey, second by Michael Weepers. 8:30pm