

**REEDLEY COLLEGE**  
**Medium/Heavy Duty Truck Service and Repair**  
**Certificate of Achievement**

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**NARRATIVE TEMPLATE for a (credit) Certificate of Achievement**

**Item 1. Program Goals and Objectives**

The goal of this certificate of achievement (CA) program is to provide occupational skills and training for students seeking a career in the Career Technical Education (CTE) field of Medium/Heavy Duty Truck Service and Repair. Upon completion of this program, students will be able to:

- Perform service of Medium/Heavy Duty Trucks
- Perform entry-level repairs of Medium/Heavy Duty Truck systems including
  - Diesel Engines
  - Drive Train
  - Brakes
  - Suspension and Steering
  - Electrical/Electronic
  - Heating, Ventilation, and Air Conditioning
  - Hydraulics
- Perform routine preventative maintenance to Medium/Heavy Duty Trucks
- Utilize information systems to access service information, parts, and prepare work orders
- Successfully obtain employment in the Medium/Heavy Duty Truck industry

**Student Selection and Fees:**

The Reedley College Medium/Heavy Duty Truck Program is an open enrollment program with no entry criteria. There are no student lab fees for any of the program courses.

**Item 2. Catalog Description**

Students successfully completing the outlined course of study will be able to perform entry-level service and repair of Medium/Heavy Duty Trucks. This certificate follows the NATEF Master Accreditation standards: Diesel Engines, Drive Train, Brakes, Suspension and Steering, Electrical/Electronic Systems, Heating, Ventilation & Air Conditioning, Preventative Maintenance, and Hydraulics. Students will be eligible to take the ASE (Automotive Service Excellence) certification tests in the Medium/Heavy Duty Truck area and if successful will earn ASE certifications. The industry prefers that to hire technicians who possess these certifications.

**REEDLEY COLLEGE****Medium/Heavy Duty Truck Service and Repair****Certificate of Achievement****Item 3. Program Requirements**

Certificate of Achievement: Medium/Heavy Duty Truck Service and Repair

<b>Requirements</b>	<b>Dept. Name/#</b>	<b>Name</b>	<b>Units</b>	<b>Sequence</b>
Required Core (48 units)	MAG 20	Equipment Technician: Diesel Engines, Service Fundamentals, Machine Systems	11	Yr 1/2 Fall
	MAG 21	Equipment Technician: Transmissions, Torque Converters, & Air Conditioning	8	Yr 1/2 Fall
	MAG 30	Equipment Technician: Electrical, Hydraulic Systems, & Welding	11	Yr 1/2 Spring
	MAG 31	Equipment Technician: Fuel Systems, & Machine Undercarriage	8	Yr 1/2 Spring
	MAG 50	Heavy Duty Brake Systems	4	Yr 1/2 Fall
	MAG 51	Heavy Duty Suspension and Steering	4	Yr 1/2 Spring
	MAG 19V	Cooperative Work Experience, Mechanized Agriculture	2	Yr 1/2, Summer

Required Core Total: 48 units

TOTAL UNITS: 48 units

Proposed Sequence:

Year 1, Fall = 19 units

Year 1, Spring = 19 units

Year 2, Fall = 4 units

Year 2, Spring = 4 units

Year 2, Summer = 2 units

TOTAL UNITS: 48 units

*Or*

Year 1, Fall = 15 units

Year 1, Spring = 12 units

Year 1, Summer = 2

Year 2, Fall = 11 units

Year 2, Spring = 8 units

TOTAL UNITS: 48 units

## **REEDLEY COLLEGE**

### **Medium/Heavy Duty Truck Service and Repair**

#### **Certificate of Achievement**

#### **Item 4. Master Planning**

This certificate of achievement in Medium/Heavy Duty Truck Service and Repair is in line with the Master Plan at Reedley College. Also, it matches the State Center Community College Districts Master Plan Goal 4 of Economic and Workforce Development by offering access to quality career technical programs.

Currently the Mechanized Agriculture (MAG) Program consists of a strong Equipment Technician CTE pathway, an off-highway diesel powered mobile equipment program. There has been a need to expand the MAG Program to include the Medium/Heavy Duty Truck Service and Repair program (an on-highway diesel powered mobile equipment program) to meet the needs of the industry. There is currently a large demand for technicians in this area.

The program review document submitted Fall 2015 reflects the added needs for funds to offer the proposed course of study along with facility needs. In addition to the program review process, the MAG program meets at least twice annually with an industry-based advisory committee to discuss the enhancement of the instructional program and industry/workplace needs. Often discussions focus on community needs and the skills students need to attain to obtain gainful employment.

The Medium/Heavy Duty Truck Service and Repair program utilized the knowledge and expertise of industry partners and advisory members. Members are critical in expressing industry needs and trends and helping to steer the direction the program should take.

Facilities currently include a 7,200 sq. ft. shop consisting of two shop floor spaces, classroom space, offices, storage, and restrooms. A 4,320 sq. ft. concrete apron partially covered and equipped with a two-ton bridge crane allows for outside instruction. Classroom instruction currently takes place in the LSH classroom. There is a smaller classroom in the ag shop building where small group instruction takes place. This classroom is used for student tutoring and has ten computer stations available to them. A field adjacent to the shop allows for equipment operation and instruction. Welding and fabrication instruction takes place in the IT shop. As shown in the above excerpt the current MAG Program has outgrown the current facility and the addition of this new program should include additional facilities.

**REEDLEY COLLEGE****Medium/Heavy Duty Truck Service and Repair****Certificate of Achievement****Item 5. Enrollment and Completer Projections**

This item should justify the number of projected students or “annual completers” to be awarded the certificate each year after the program is fully established as entered into the CCC Curriculum Inventory proposal field (discussed in sub-section one of this Guide). The justification must include either: (A) enrollment (student headcount) data or (B) a survey of prospective students and completer projections information.

**(A) Enrollment Data**

Use a table format (sample provided below\*) to provide final (not census) enrollment data for all required existing courses for the last two years to validate the need for this program in the college service area. Include course department number, course title, annual sections, and annual enrollment total.

		2014-2015		2015-2016	
CB01: Course Department Number	CB02: Course Title	Annual # Sections	Annual Enrollment Total	Annual # Sections	Annual Enrollment Total
MAG-20	Equipment Technician: Diesel Engines, Service Fundamentals, Machine Systems	2	74	2	79
MAG-21	Equip Tech: Transmissions, Torque Converters, & Air Conditioning	2	74	2	80
MAG-30	Equip Tech: Electrical, Hydraulic Systems, & Welding	2	73	2	77
MAG-31	Equipment Technician: Fuel Systems & Machine Undercarriage	2	52	2	74

\*Use as many rows as required to provide requested data.

As a point of reference, refer to the Chancellor's Office Data Mart ([www.cccco.edu](http://www.cccco.edu) click on the *DATAMART* hyperlink on the top right header) for historical completion rates by academic year for each TOP Code.

**(B) Survey**

**REEDLEY COLLEGE**

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**Certificate of Achievement**

In the case of a survey, the survey questionnaire, a description of the population surveyed, and survey results must be included.

N/A

**Bus and Truck Mechanics**

**(SOC Code : 49-3031)**

**in California**

Diagnose, adjust, repair, or overhaul trucks, buses, and all types of diesel engines. Include mechanics working primarily with automobile diesel engines.

Employers are usually looking for candidates with Post secondary vocational training .

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**Occupational Wages**

[\[Top\]](#)

Area	Year	Period	Hourly Mean	Hourly by Percentile		
				25th	Median	75th
California	2015	1st Qtr	\$24.65	\$19.00	\$24.57	\$29.82

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**Occupational Projections of Employment (also called "Outlook" or "Demand")**

[\[Top\]](#)

Area	Estimated Year-Projected Year	Employment		Employment Change		Annual Avg Openings
		Estimat ed	Project ed	Numbe r	Percent	
Californ ia	2012 - 2022	21,700	24,600	2,900	13.4	760

<http://www.labormarketinfo.edd.ca.gov/OccGuides/Detail.aspx?Soccode=493031&Geography=0601000000>

**Bus and Truck Mechanics**

**(SOC Code : 49-3031)**

**in Fresno County**

Diagnose, adjust, repair, or overhaul trucks, buses, and all types of diesel engines. Include mechanics working primarily with automobile diesel engines.

**REEDLEY COLLEGE**

**Medium/Heavy Duty Truck Service and Repair**

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Employers are usually looking for candidates with Post secondary vocational training .

Fresno County is the same as Fresno MSA.

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<b>Occupational Wages</b> <a href="#">[Top]</a>						
Area	Year	Period	Hourly Mean	Hourly by Percentile		
				25th	Median	75th
Fresno MSA	2015	1st Qtr	\$23.05	\$17.62	\$23.31	\$28.43

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<b>Occupational Projections of Employment (also called "Outlook" or "Demand")</b> <a href="#">[Top]</a>						
Area	Estimated Year-Projected Year	Employment		Employment Change		Annual Avg Openings
		Estimated	Projected	Number	Percent	
Fresno County	2012 - 2022	780	790	10	1.3	18

**Item 6. Place of Program in Curriculum/Similar Programs**

Before completing this section, review the college’s existing program inventory in the CCC Curriculum Inventory, then address the following questions:

- a) Do any active inventory records need to be made inactive or changed in connection with the approval of the proposed program? If yes, please specify.

N/A- this is a new program that will not replace any existing program.

- b) 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).

N/A- this is a new program that will not replace any existing program.

- c) What related programs are offered by the college?

The MAG program offers the closest related program with its off-highway Equipment Technician Program.

**Item 7. Similar Programs at Other Colleges in Service Area**

There are currently no similar programs at other colleges in the service area.

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## Bus and Truck Mechanics LMI

<http://www.labormarketinfo.edd.ca.gov/OccGuides/Detail.aspx?Soccode=493031&Geography=0604000019>

### Wages

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The median wage in 2015 for Bus and Truck Mechanics in California was \$51,100 annually, or \$24.57 hourly. The median wage for Bus and Truck Mechanics in Fresno County was \$48,504 annually, or \$23.31 hourly. The median is the point at which half of the workers earn more and half earn less.

Hourly Wages for 2015	Low (25th percentile)	Median (50th percentile)	High (75th percentile)
California	\$19.00	\$24.57	\$29.82
Fresno County	\$17.62	\$23.31	\$28.43

Source: EDD/LMID [Occupational Employment Statistics Survey, 2015](#). Wages do not reflect self-employment.

### Projections of Employment

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In California, the number of Bus and Truck Mechanics is expected to grow slower than average growth rate for all occupations. Jobs for Bus and Truck Mechanics are expected to increase by 13.4 percent, or 2,900 jobs between 2012 and 2022.

In Fresno County, the number of Bus and Truck Mechanics is expected to grow slower than average growth rate for all occupations. Jobs for Bus and Truck Mechanics are expected to increase by 1.3 percent, or 10 jobs between 2012 and 2022.

Estimated Employment and Projected Growth Bus and Truck Mechanics					
Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Additional Openings Due to Net Replacements
California (2012-2022)	21,700	24,600	2,900	13.4	4,600
Fresno County (2012-2022)	780	790	10	1.3	170

Source: EDD/LMID [Projections of Employment by Occupation](#)

Annual Job Openings

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In California, an average of 290 new job openings per year is expected for Bus and Truck Mechanics, plus an additional 460 job openings due to net replacement needs, resulting in a total of 760 job openings.

In Fresno County, an average of 1 new job opening per year is expected for Bus and Truck Mechanics, plus an additional 17 job openings due to net replacement needs, resulting in a total of 18 job openings.

<b>Estimated Average Annual Job Openings Bus and Truck Mechanics</b>			
<b>Geographic Area (Estimated Year- Projected Year)</b>	<b>Jobs From Growth</b>	<b>Jobs Due to Net Replacements</b>	<b>Total Annual Job Openings</b>
California (2012-2022)	290	460	760
Fresno County (2012-2022)	1	17	18

Source: EDD/LMID [Projections of Employment by Occupation](#)

Reedley College Equipment Technician Program  
Advisory Committee Meeting  
March 3, 2016  
Reedley College

**Minutes**

Called to order: 6:45pm

Present:

Reedley College	Gary Wenter	Bill Brensel	AED Foundation
	Larry Dinis	Hugo Rodriguez	Fresno Truck Center
	Nick Deftereos	Mike Betts	Betts Company
		Brian Bennett	Quinn Company
		Tommy Akins	Oxbo International
		Juan Rodriguez	Quinn Company
		Ron Rogalsky	Gibbs Truck Centers

## I. Welcome and Introductions

### A. Industry/Company Reports

Gary W welcomed the group and introductions were made.

Juan Rodriguez – Quinn Company – Technical Communicator (TC) for 1 year now, 8 years as a trainer. Quinn has a lot of good techs that have come from this program. Currently have 19 tech openings company wide, always looking for qualified people.

Bill B – AED – Retired from Quinn – various jobs, various places. Currently evaluate Diesel Technology programs around the country.

Mike Betts – CEO of Betts Company. Manufacture spring and components as well as truck parts and service.

Hugo Rodriguez – Fresno Truck Center – business is good. Need techs, shop is expanding and will need more technicians as we grow.

Brian Bennett – Quinn Power Systems – also need techs in power systems area. Biggest recent news is the discontinued CAT on-highway truck. Truck service area will now focus on more industrial/power generation side of business. Brian is a proud RC graduate.

Josh (guest of Tommy Akins) – Oxbo – 16 years with the company, recently promoted to product support specialist – working directly with technicians

Tommy Akins – Oxbo – Josh just completed a 2-day training with our techs and our guys learned more in 2 days with him than if they had to send them back to factory training. Company has transitioned to using Product Support Specialists (PSS) to provide support for techs. Currently have Alec from RC and he is a model employee. Need a cloning machine so we can duplicate him. Alec was

very active and involved in the training today which forces the older techs to really up their game.

## **II. Program Orientation**

Gary W gave some background information on why we would like to require an orientation – it all boils down to student success. Students entering into the 1-year certificate program will take 19 college units of a very intensive program. If students do not possess some background or good study skills, they really struggle. Based on the data we have collected from our Differential Aptitude Test students scoring below a 70% are unsuccessful in achieving a passing grade for all 19 units. By providing an orientation the instructors can provide prospective students with what to expect in the program as well as administer the aptitude test. Students scoring below a 70% would be counseled to take the 2-year path which allows students to progress at a slower pace. Counselors will be on hand during the orientation to assist students with registration, etc. Copies of the aptitude test were distributed and reviewed. Orientations are scheduled for 3/16, 4/6, 5/9, and 6/13.

Bill B stated that this idea is a great way to help bring the success level up. Bill moved that the Advisory committee approves the proposed orientation with all of its components (information about the program, aptitude test, and counseling).

Tommy A – Second the motion

Voice vote – motion carries.

## **III. Program Updates**

### ***A. Addition of 4<sup>th</sup> full-time instructor***

Gary provided information on the possible addition of an instructor. Ultimately the addition is based on the budget. The outlook is very positive. Much discussion followed regarding who would be a good fit for the position

### ***B. Pinot and Pints – April 2<sup>nd</sup>***

This will be the 6<sup>th</sup> annual fundraiser for ABC. Expecting nice weather and a really good time.

### ***C. FFA Field Day – April 16<sup>th</sup>***

Expecting 700-800 FFA Students participating in over 11 contest areas. Ag Mechanics and Farm Power are the contest areas that we coordinate in our area. If you are available that day, please stop by and check out the contest and students. It will restore your faith in the youth of our country!

### ***D. Career Day – April 29<sup>th</sup>***

Last year we put on the first Mechanized Ag Career Day, had approximately 20 employees come and talk to students. They will have

resumes and are ready to find internships. Some students were hired on the spot.

***E. AED Instructors Conference – June 2016***

3 instructors heading back to Missouri this summer

***F. AED Re-Accreditation – Fall of 2016***

This year we are up for Re-Accreditation. Visit will be in the Fall and will involve an extensive evaluation of our program.

## **IV. Proposed Programs**

***A. On-Highway Truck Program***

**1. NATEF Curriculum, Shop Space for Instruction, Tooling, Equipment and Supplies, New Curriculum**

Nick D gave the update on the program that was presented at the last meeting. Curriculum has been submitted and is pending approval. Discussion followed regarding the required space for the program. Gary W reported that our current program has outgrown the facilities we currently have, we are teaching subjects outside, in the weather that should really be taught in a cleaner environment. If this new program is going to work facilities need to be built. Mike B – Would it be wise to submit a letter that acknowledges the space limitations and suggests that additional facilities be constructed? Discussion followed and committee agreed to draft a letter.

Juan R – Just curious, why do the On-highway program with the off-highway program? Seems like it would fit better for the Auto program.

Bill B – Around the country most heavy-duty truck programs are tied into the heavy-diesel programs instead of auto. Space limitations, tooling, etc make it a better fit. Also, when planning for facilities need to look at each area of instruction and plan for each area. Then you can come up with a comprehensive shop plan. CAT has an architectural group that will help you design a shop.

Ron R – International also has specs for shops when it comes time to design.

Mike B moved to approve the proposed On-Highway truck curriculum and the Certificate of Achievement for Heavy Duty Truck.

Ron R – Second the motion

Voice vote – motion carries

## ***B. Ag Mechanics Program***

### **1. 6 Classes: Dual Enrollment**

Intro to AG Mechanics	MAG 40
Intro to Welding	MAG 41
Intro to Fabrication	MAG 44
Compact Engines	MAG 43
Electrical and Hydraulics	MAG 42
Machinery Technology	PLS 11

Larry D – provided the committee with an update on the program that was presented at the last meeting. Larry provided an overview of the curriculum along with the certificate and the degree on the board so the committee could see it. Several members requested the course outlines. Larry will email them to the members.

Hugo R – moved to approve the program of instruction along with the Certificate of Achievement and the Associate degree in Agricultural Mechanics.

Juan R – Second the motion

Voice Vote – motion carries

## **V. SCCCD Bond Initiative**

Information was provided about the bond initiative

Much discussion followed regarding use of bond money to construct additional shop space. Several committee members indicated a desire to write a letter of support for the bond and specifically to encourage the district to utilize the money for construction of new shop facilities.

**Meeting adjourned at 8:34pm**

Respectfully Submitted

Nick Deftereos

2015 Mechanized AG Advisory Committee Members

Name (Last, First)		Company
Aikens	Tommy	Oxbo of Kingsburg
Alatore	Kathy	Quinn Used Parts, Manager
Barnett	Doyl	Quality Machinery Co
Bennett	Brian	Quinn Company
Brensel	Bill	AED Foundation
Clark	David	Reedley College Dean
Cruce	David	Papich Construction Inc.
Reyes	Ray	Quinn Rental Services, Store Manager
Fitzgerald	Mike	Valley Power Systems
Hunter	Cliff	JM Equipment
Martinez	Fred	Quinn Company, Service Manager-Selma
Miller	Matt	Fresno Equipment Company, Service Manager
Rodriguez	Hugo	Fresno Truck Center, Service Manager
Rodriguez	Juan	Quinn Company Trainer
Rogalsky	Ron	Gibbs International, Service Manager
Devany	John	Betts Truck Parts and Service Division Sales Manager
Betts	Mike	Betts Company, Chairman and CEO