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## OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review and Planning is about evaluating and assessing programs and documenting plans for improving student success rates. Through review of and reflection on key program elements, Program Review and Planning identifies program strengths and strategies necessary to improve the academic discipline, program, and/or services to support student success.

The College also uses Program Review and Planning as the conduit to request resources (human, technology, facilities and funding) to further help improve and support programs.

## BASIC PROGRAM INFORMATION

**Academic Year**

2021-2022

**Are you completing a comprehensive or annual PRP?**

Comprehensive

**Division Name**

Career, Technical and Extended Education

**Department Name**

Trade and Industry

**Department Chair Name**

Jennifer Anderson

**Discipline Name**

Diesel Mechanics Technology (DMT)

**Department Chair email**

janderson2@palomar.edu

**Please list the names and positions of everyone who helped to complete this document.**

Sergio H. Hernandez Assoc. Professor

**Website address for your discipline**<https://www2.palomar.edu/pages/diesel/>**Discipline Mission statement**

The mission of the Diesel Technology Program is to educate and prepare the Diesel Technicians of the future with the latest technologies and basic soft skills that the Diesel industry now requires. We achieve this mission by maintaining committed highly trained staff and dynamic private and public partnerships with Local, State and National entities. We work to empower our graduates to make successful career and life choices that improve their lives, their communities, and the economy.

Describe how your mission statement aligns with and contributes to the College's Vision and Mission.

[\(click here for information on how to create a mission statement\)](#)

**Does your discipline have at least one degree or certificate associated with it?**

Yes

**Are any of your programs TOP coded as vocational (CTE/CE)?**

Yes

**List all degrees and certificates offered within this discipline.**

Certificate of Achievement. Diesel Mechanics Technology

Assoc.of Science Diesel Mechanics Technology

## BASIC PROGRAM INFORMATION: FACULTY AND STAFFING RESOURCES

In this section, you will identify how many faculty and staff support your discipline's programs. This information is considered when you request permanent staff and faculty hires. It is also useful as you evaluate your program and the human resources and talent you have to support our students.

To help you answer questions in this section, you will need the two links below. An arrow will appear in the spreadsheet pointing to the data you will enter.

1) [Permanent Faculty and Staff Count](#)

2) [FTEF LINK](#)

**How many permanent or full-time faculty support your discipline (program)?**

1

**For this past fall semester, what was your Full-time FTEF assigned to teach classes?**

1.00 FTEF

**For this past fall semester, what was your Part-time FTEF assigned to teach classes?**

1.80 FTEF Overload 0.20 Hourly 1.60

**List the classified and other permanent staff positions that support this discipline.**

Michelle Tucker ADA FTEF 1 Shared with the rest of Trade & Industry (12 month contract)

**List additional hourly staff that support this discipline and/or department**

None

## PROGRAM INFORMATION

In this section, you are asked to consider and evaluate your programs, including their program learning outcomes, the annual number of completions, goals for completions, and enrollment and efficiency trends.

## PROGRAM LEARNING OUTCOMES

Begin this section by reviewing the Program Review reports for programs and courses in **Nuventive Improve** (TracDat). All active course and program learning outcomes should be systematically assessed over a 3-year cycle. First, look at program learning outcomes.

- **Program** = Leads to a degree or certificate
- **Discipline** = A group of courses within a discipline

\*Programs will be able to complete program completion and outcome questions.

**How well do your program's learning outcomes communicate the scope and depth of the degree/certificate offered?**

All of our learning out comes are geared with the following in mind:

#1 Learning how to work in and around heavy equipment while being safe at all times including in a shop environment.

#2 Trying to meet the tremendous needs of our industry for Diesel technicians.

#3 Our program is putting students to work.

#4 Program is constantly being guided by our Advisory Committee members and our strong ties too our industry partners.

#5 Our retention Rate for 2017-2018 was 92% and our Success rate for 2017-2018 was 80%

**How do they align with employer and transfer expectations?****Describe your program's plan for assessing program learning outcomes.**

Through regular tests and quizzes, Task sheets related to industry work, directly correlated to our lab assignments.

We also provide our students with NC3 certifications that are directly imbedded into our normal courses.

The certifications are industry vetted and recognized. This provides our students not just with the added value but with a leg up when the time comes to apply for a job.

**Summarize the major findings of your program outcomes assessments.**

Thus far we have progressed well and have met our modest goals. We have meet the following LIO's:

Communication:

- a. Written
- b. Oral
- c. Visual

Creative, Critical, and Analytical Thinking

- a. Critical Thinking
- b. Information Literacy
- c. Teamwork and problem solving

Depending on the degree or transfer goals of our students, there are three different GE pathways to choose from:

- [Associate Degree GE Requirements](#)
- [CSU GE Requirements](#)
- [IGETC Requirements](#)

Palomar College has identified a set of General Education/Institutional Learning Outcomes (GE/ILOs), which represent the overall set of abilities and qualities a student graduating from Palomar should possess. [Click here for a link to Palomar's GE/ILOs.](#)

Next, review your course outcomes as they relate to Palomar's GE/ILOs.

**How do the courses in your discipline support GE/ILOs? In your response, please specify which GE/ILO(s) your discipline supports. You should refer to the GE/ILOs your program outcomes are mapped to in Nuventive.**

All of our courses give students the opportunity to practice general education skills in the following areas:

#1 Writing, In each course they have to write at least two essays.

#2 Critical thinking Skills are constantly being used in troubleshooting system malfunctions and failure.

#3 Math is imbedded in every course where they use formulas such as Ohm's Law, Watt's Law for power, Hydraulics uses  $F = P \times A$

**Summarize the major findings from your course outcomes assessments that are related to the GE/ILOs education/Institutional Learning Outcomes that your discipline supports. You should refer to the GE/ILOs your course outcomes are mapped to in Nuventive.**

Communication:

a. Written

b. Oral

c. Visual

Creative, Critical, and Analytical Thinking

a. Critical Thinking

b. Information Literacy

c. Teamwork and problem solving

## PROGRAM COMPLETIONS

Student success is at the core of what we do in assisting students in achieving their goals.

The Chancellor's Office Vision for Success stresses the importance of Program Completion as a major goal for our students. In addition, transfer and career readiness are key components of Palomar College's mission statement. This year, our funding formula has also changed reflecting this emphasis, providing additional funding as a function of the number of completions.

In this section, you will reflect upon the number of completions students earned for EACH degree/certificate you offer. As required for accreditation, you are also asked to set a standard which represents the lowest acceptable number of completions and a stretch goal for increasing the number of awards.

Link to [Program: Completions](#)

**Copy and paste five years of completion data for each of your discipline's degrees and certificates.**

Degrees and Certificates Awarded (Count)

2015-16 2016-17 2017-18 2018-19 2019-20 2020-21!

□ Associate in Science Degree 4 9 3 3 5 2

AA/AS Total 4 9 3 3 5 2

Certificate of Achievement 12 21 13 3 10 3

Certificate Total 12 21 13 3 10 3

Grand Total 16 30 16 6 15 5

**Have your program completions Increased, decreased, or stayed the same over the last 5 years?**

Decreased

**What factors have influenced your completion trends?**

# 1. COVID -19 2020 thru 2021 thus far is low on completions but 2019 thru 2020 was good with 15 combined certificates and degrees.

# 2. Due to the high demand and shortage for diesel technicians, students are offered jobs and do not complete the program. They leave and never complete the program.

# 3. Industry is paying high wages that potential students do not want to come to school. Starting wages are around \$ 20.00 per hour and up.

**Are the courses in your discipline required for the completion of other degrees/certificates?**

No

**Do you have programs with 7 or fewer completions in the last 5 years?**

Yes

**What steps are you taking to address these completions?**

We know that (Pre-COVID-19), the problem was two fold in 2018-2019 which is when we only had six completions, this was due to the fact that the economy was booming at that time and the high demand for Diesel technicians was and still is very high to this day.

COVID -19 has changed our world and it seems like potentially we can gain some of our loses in the Spring of 2022.

Our accrediting body, ACCJC, and the Federal Department of Education requires that colleges establish standards and goals for student success and completion.

A program-set standard for completion represents the lowest number of program completion you deem acceptable for your program. In other words, if you were to notice a drop below the set standard, you would seek further information to examine why this occurred and strategies to increase completions.

**What is your program standard for program completion?**

6

**Why did you choose this standard?**

This is the standard that is acceptable considering the volatile economy, it is a safe number to achieve without under delivering.

A program stretch goal for completions is the number of completions you aspire to award for each program in your discipline.

To determine your stretch goal, consider the number of annual completions you typically award over time, then consider strategies or efforts you are making to increase completions in your program. Then identify the NUMBER you want to set as your goal.

**What is your stretch goal for program completion?**

7

**How did you decide upon your stretch goal?**

Two many uncertainties, ranging from:

#1 COVID-19

#2 The economy

#3 Jobs market

#4 Wages

**ENROLLMENT AND EFFICIENCY TRENDS**

Your courses and offerings represent the path students take to complete their goals. Palomar has a very diverse set of programs and offerings and students have many paths they can take to earn a degree, certificate, or transfer.

In addition to student success and completion, enrollment trends, resources (FTEF), and efficiency metrics like FTES/FTEF are factors reviewed by the college when considering needs for staffing and program support. Evaluating these metrics also helps the College when developing class schedules to meet the needs of students.

Palomar College uses the WSCH/FTEF ratio as one indicator of overall efficiency in addition to the overall fill-rate for courses.

Although the college efficiency goal is 525 WSCH/FTEF and 85% fill-rate (minimal), there are many factors that affect efficiency (i.e. seat count / facilities / accreditation restrictions).

In this section, you will examine your enrollments over time and resources (FTEF) utilized to support or generate those enrollments.

This information can be found by looking at enrollment efficiencies.

Link to [Program: Enrollment Trends](#)

**Have your enrollment trends increased, decreased, or stayed the same for your discipline over the past five years? (check box)**  
Decreased

**Have your efficiency trends increased, decreased, or stayed the same for your discipline over the past five years? (Check box)**  
Decreased

**Were these trends expected? Please explain.**

The data below shows that even with all of the large scope issues in the Fall of 2019 We had good enrollment

Enrollment Trend

Fall 2015 Fall 2016 Fall 2017 Fall 2018 Fall 2019 Fall 2020

Enrollment 228 216 204 244 286 No Data

Fill Rate 79.17% 75.00% 85.00% 101.67% 85.12% No Data

WSCH Per FTEF 344.09 359.80 340.60 407.50 351.75 No Data

## Program Information Summary

In this section you are asked to evaluate your programs by considering their program learning outcome assessments, the annual number of completions, goals for completions, enrollment and efficiency trends and any other internal or external factors that had an impact on your program.

**What factors have contributed to the success of your program(s)? Describe how they have contributed.**

The program as a whole has been successful due to the following factors:

#1 Serving our industry by providing well trained and rounded students to the work force.

#2 Teaching and training students both soft and career skills needed to succeed in the work force.

#3 Strong ties to industry and industry partners.

#4 Helping students with job placement.

#5 Aiding students with deferring the cost of school by providing scholarships, Such as Project Cornerstone.

**What factors have presented challenges for your program(s)? Describe the impact of these challenges.**

The high demand for technicians is stripping our current students but also our future ones.

The wages that industry is paying is incredible and extremely hard for students to turn down.

A. The diesel program has not had adequate storage facilities for at least the last eight years. The lab space is being used for storing the equipment instead of training. This is a vital need because our equipment has a high dollar value. Because we constantly have to move equipment, it gets damaged.

B. The District needs a dedicated, informed and interested counselor for Career Technical Education. Too many students get wrong or no information about CTE programs.

C. Although we have a fairly new facility and storage building, we don't have enough space to accommodate our programs current or future needs.

D. An ISA is needed to maintain tools, equipment and help with student safety and shop operations.

E. As the program has grown the staffing has not.

F. We need a dedicated ADA ( Not share one)

G. Funding to at least hire short term employees to help clean organize and maintain the shop and equipment.

## COURSE INFORMATION

In this section, you will review how students perform in the courses you offer as part of your program. The Chancellor's Office Vision for Success stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

Data are provided to help you examine differences in course success rates (C or better) across student demographic categories (e.g., gender) and course type (e.g., face-to-face, online).

After you complete your review of course success data, you are asked about the assessment of student learning outcomes at the course level, progress you have made in these assessments, and changes you have implemented as a result/

## COURSE SUCCESS AND RETENTION

ACCJC also requires that colleges establish institutional and program level standards and stretch goals for course success rates.

Program-set standards for course success rates represent the lowest success rate deemed acceptable by your discipline. In other words, if you were to notice a drop below the rate, you would seek further information to examine why the drop occurred and strategies to address the rate. The College's institution-set standard for course success rates is 70%

Program-set stretch goals for course success rates represent the success rates you aspire your students to achieve.

### Link to Course Information

The data includes overall success (% C or better) and retention rates (% No Ws) . The data tables include course rates by gender, age, ethnicity, special population, location, and modality (You can access the Student Equity Plan on the SSEC website <https://www2.palomar.edu/pages/ssec/> )

### What is your program's standard for Discipline COURSE Success Rate?

72.0%

### Why did you choose this standard?

This is the standard that is acceptable by the state. and with the volatile economy it is a safe number to achieve without under delivering.

### Have your overall course success rates increased, decreased, or stayed the same over the last 5 years?

Increased

### Was this expected? Please explain.

75.9% is the average over the past five yrs. this was expected.  
Our program is always affected by the economy.

### Overall Enrollment and Success Rate

Fall 2015 Fall 2016 Fall 2017 Fall 2018 Fall 2019

Enrolled 114 108 102 122 143

Success Rate 71.1% 80.6% 72.5% 68.9% 87.4%

### What is your stretch goal for course success rates?

80.0%

### How did you decide upon the goal?

With the volatile economy it is a safe number to achieve without under delivering.

### Have your overall course retention rates increased, decreased, or stayed the same over the last 5 years?

Increased



**Was this expected? Please explain.**

90% is the average over the past five yrs. this was not expected.  
Our program is always affected by the economy.

**Overall Enrollment and Retention Rate**

Fall 2015 Fall 2016 Fall 2017 Fall 2018 Fall 2019

Enrolled 114 108 102 122 143

Retention Rate 96.5% 97.2% 86.3% 94.3% 97.9%

**Are there differences in success or retention rates in the following groups? (choose all that apply)**

When or where (time of day, term, location)

Gender

Age

Ethnicity

Special Pop. (Veteran, foster youth, etc.)

**When or Where: Why do you think differences based on when or where the course is offered exists? What do you need to help close the gap?**

#1 We have a high population of students that work during the day and come to school at night.

#2 Offering multiple courses throughout the entire week including weekends gives students more options and opportunities to attend courses.

#3 Targeted marketing specific to the program has never been done and much needed.

#4 Enrollment / Counseling at the same time helping students not just on the front end but throughout their stay at Palomar would make a huge difference.

#5 Technical support with technology ie. Canvas, eServices, Windows etc.

#6 Assistance / Financial aid purchasing computers / Laptops so that they can do the assignments / home work.

**Gender: Why do you think gender differences exist? What do you need to help close the gap?**

This career field is not glamorous in any way shape or form and is extremely physically demanding. Mostly male students are attracted to this career field. Current marketing effort aimed at women in our out reach cards with pictures of women working in the shop is an initial step to increase enrollment. Our industry is making big leaps not just recruiting but also hiring female students. Unfortunately we do not have the female student population.

**Age: Why do you think age differences exist? What do you need to help close the gap?**

Age is related to maturity and character. The older they are the more serious they are about the program and their careers.

**Ethnicity: Why do you think ethnicity differences exist? What do you need to help close the gap?**

In our geographical area our population is highly Hispanic. Academic year 2017-18 for our program was 79% Hispanic.

**Special Populations: Why do you think special population differences exist? What do you need to help close the gap?**

Our Veterans are serious and they are motivated by three main factors:

#1 They want to be successful as a civilians.

#2 The V.A. holds them accountable, while our regular student population is not.

#3 The Veterans center on campus has a very good reputation and serves our veterans very well.

**Are there differences in success/retention between on-campus and online courses?**

Yes

**Please share any best practice methods you use for online courses.**

#1 Using ebooks has reduced the cost of coming to school by at least 50%.

#2 Using ebooks also gives our students access not just to the book but also all of the same resources that the instructor has access to with the exception of the answers to the test/quizzes. This would also include PowerPoints, pictures, animation, videos, puzzles and flash cards to study. Face to Face students love this and so do online students because they see the same things the instructor does.

**COURSE STUDENT LEARNING OUTCOMES (SLOs)**

**Reflecting on the major findings you summarized, what are some questions you still have about student learning in your courses that you have not yet been able to address with your outcomes assessments?**

Why is it that students can not be on time to class, or turn in assignments on time?

**What are some improvements in your courses that have been, or can be, pursued based on the key findings from your course learning outcomes assessments?**

We need to expand the real estate available so that;

#1 Grow and expand the program, not just physically but also with course offerings.

**Summarize the major findings of your course level student learning outcomes assessments.**

We have meet our goals but students attending our program by nature are kinesthetic learners, that is what attracts them to our program even though they can do online lectures it is so much easier for them and the instructor to be face to face because if a question comes up or follow up is needed you go out to the lab and show them, point it out or do a quick demo and that fills in the gap, where as to online you have to wait until you come to school or figure out a different way.

**Excluding courses that haven't been offered in the last three years, confirm that all of your courses have been assessed in the last three years.**

Yes

## **PROGRAM CURRICULUM ALIGNMENT, MAPPING, SCHEDULING, & PLANNING**

The Chancellor's Office Vision for Success stresses the importance of decreasing the average number of units accumulated by CCC students earning degrees.

Palomar College's Guided Pathways plan includes clarifying paths for students by sequencing course offerings so that they support scaffolding and timely completion. Our goal is to ensure learning through:

- The mapping and assessment of clear program outcomes that are also aligned to employer and/or transfer institution expectations.
- Engaging and applied learning experiences.
- Effective instructional practices to support students in achieving success.

**What is your departmental strategy on how you schedule your courses, including the time of day you offer courses? Do you use 4-week, 8-week, or block scheduling (putting required classes near each other) to organize required classes to meet the needs of disproportionately impacted students? Please explain.**

The program has been changed with the implementation of the two year schedule that is posted on our Diesel website for all to see. We use the normal semester schedule, Courses are being alternated day and night for student to have better access.

**How do you work with other departments that require your course(s) for program completion?**

Strategy is simple courses are in sequence and offered evenings and days. We look at the previous two semester and offer accordingly to the demand weather it is day or night offering.

**Does your discipline offer cross-listed courses?**

No

**Are there curriculum concerns that need to be resolved in your department? What are they?**

No Concerns.

**Are there courses that should be added or removed from your program - please explain?**

Three courses that will be added based on what feed back and buy in by industry on our program shifting in to the electrical vehicle side of things.

All three new courses need to be written to improve the program and meet NATEF standards.

1. Steering & Suspension
2. Equipment Maintenance
3. Heavy Duty Mobile HVAC

**How is the potential need for program/course deactivation addressed by the department?**

Advisory committee can make recommendations and low completions as described from Launch board.

**Are there areas you would like to expand?**

We need to create a Medium / Heavy Duty Electric Vehicles is program this is the new wave of technology, and not just because it is the flavor of the month but because there are federal and state mandates in place requiring the switch to electric vehicles. We need to be at the front of this.

**Describe any data and/or information that you have considered as part of the evaluation of your program.**

#1 Industry needs.

#2 Technology changing.

#3 Instructors capable of teaching the courses.

#4 Availability of equipment for training.

To answer the next two questions, you will need to review your [program maps](#) and program information in the [2021-2022 Catalog](#).

**Is the content in the program mapper accurate?**

No

**What needs to be corrected in the mapper?**

Automotive information is being used! Not Diesel information!

The following top codes should be used:

094700 Diesel Technology

094720 Heavy Equipment Maintenance

094900 Recreational Vehicle Service

49-3031.00 - Bus and Truck Mechanics and Diesel Engine Specialists

In San Diego-Carlsbad, CA:

Workers on average earn \$59,790.

10% of workers earn \$41,330 or less.

10% of workers earn \$94,320 or more.

In California:

Workers on average earn \$58,980.

10% of workers earn \$35,940 or less.

10% of workers earn \$89,340 or more.

In the United States:

Workers on average earn \$50,200.

10% of workers earn \$32,820 or less.

10% of workers earn \$76,460 or more.

In San Diego-Carlsbad, CA:

Workers on average earn \$28.74 per hour.

10% of workers earn \$19.87 or less per hour.

10% of workers earn \$45.34 or more per hour.

In California:

Workers on average earn \$28.36 per hour.

10% of workers earn \$17.28 or less per hour.

10% of workers earn \$42.95 or more per hour.

In the United States:

Workers on average earn \$24.13 per hour.

10% of workers earn \$15.78 or less per hour.

10% of workers earn \$36.76 or more per hour.

**Is the content in the catalog accurate?**

No

**What needs to be corrected in the catalog?**

Electives section they always keep putting in the automotive course below and that was removed a long time ago.

AT 160 Associated Studies in Automotive 3.0 Units this needs to be removed.

**Has your department or discipline started having discussions about embedding diversity related issues or content in your curriculum?**

Yes

**If yes, describe your efforts. If no, what type of training or help do you need to do this work?**

Customer service and how to better serve the customer.

## CAREER AND LABOR MARKET DATA

The Chancellor's Office Vision for Success stresses the importance of increasing the percent of exiting students who report being employed in their field of study. It is important for us to consider how **all** of our programs connect to future careers.

Go to this website <https://www.onetonline.org/> and enter your discipline in the bubble on the top right for ideas about potential occupations. Click on an example to see more detail.

**The following websites are for CTE related data:**

- [Centers of Excellence](#) (many other data resources besides supply and demand) Password: GetLMI
- [LaunchBoard](#)
- [LaunchBoard Resource Library](#)
- [Chancellor's Office Data Mart](#)
- [Career Coach-San Diego Workforce Partnership](#)
- [EDD Labor Market Info](#)
- [Career One Stop](#)

**What kinds of careers are available for people who complete your programs (and/or transfer)? (Refer to link above) Are there any new or emerging careers? If so, how would the new or emerging careers impact your future planning?**

49-3031.00 Bus and Truck Mechanics and Diesel Engine Specialists

49-3042.00 Mobile Heavy Equipment Mechanics, Except Engines

49-3041.00 Farm Equipment Mechanics and Service Technicians

53-6051.07 Transportation Vehicle, Equipment and Systems Inspectors

Electric Trucks and Buses are here. We need to start planning and procure the equipment soon or get left behind.

**What are the associated knowledge, skills, abilities (KSA's) needed for the occupations listed above? (click examples in the link above to get ideas)**

#### Knowledge

Show all 5 of 7 displayed

Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

Transportation — Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.

Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

Public Safety and Security — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.

English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

#### Skills

Show all 5 of 14 displayed

Repairing — Repairing machines or systems using the needed tools.

Troubleshooting — Determining causes of operating errors and deciding what to do about it.

Operation and Control — Controlling operations of equipment or systems.

Operation Monitoring — Watching gauges, dials, or other indicators to make sure a machine is working properly.

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

#### Abilities

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Near Vision — The ability to see details at close range (within a few feet of the observer).

Finger Dexterity — The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.

Manual Dexterity — The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.

Problem Sensitivity — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

Arm-Hand Steadiness — The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.

**How does your program help students build these KSA's?**

Through group, team and individual assignments in some cases. On ground courses allow for the much needed interaction with others.

### **Work Based Learning**

Applied and work-based learning (WBL) allows students to apply classroom content in professional settings while gaining real-world experience. WBL exists on a continuum that reflects the progress of experiences from awareness-building to training. Students often cycle back through the continuum many times throughout college and throughout their career. Faculty play a critical role in ensuring these experiences are embedded into curriculum and support learning.

**Have you incorporated work based learning (work experience, internships, and/or service learning) into your program?**

Yes

**What have you done to integrate work-based learning?**

CE-100 as an elective.

Lab assignments on equipment or simulators.

Internship with County of San Diego

**How does your work-based learning help your students learn how to do some of the tasks associated with the potential occupations?**

The Diesel Technology Program is career based and is specific to this career field.

**How do you engage with the community to keep them apprised of opportunities in your program?**

Through our industry partners and contacts. Also through our web page and out reach to the high schools.

**What is the regional three-year projected occupational growth for your program(s)?**

<http://www.coeccc.net/Search.aspx?id=3716>

Projected Occupational Demand

Between 2019 and 2024, Bus and Truck Mechanics and Diesel Engine Specialists are projected to increase by 11 net jobs or zero percent (Exhibit 1). Employers in San Diego County will need to hire 191 workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

**What is being done at the program level to assist students with job placement and workforce preparedness?**

What is done out in the work force is practiced and reinforced here in the program such as writing service reports, reading and understanding manuals, schematics, and troubleshooting

**When was your program's last advisory meeting held? What significant information was learned from that meeting?**

Scheduling meeting for this November 2021

Meeting was in Thursday, February, 22nd 2018.

Our industry partners want us to continue on the current path we are on, which is:

#1 Improving our current program.

#2 Replace our laptops due to the life cycle. (They are old and slow)

#3 Continue to bring current technology.

**What are the San Diego County/Imperial County Job Openings?**

<http://www.coeccc.net/Search.aspx?id=3716>

Bus and Truck Mechanics and Diesel Engine Specialists in San Diego

County have a labor market demand of 191 annual job openings (while average demand for a single occupation in San Diego County is 277 annual job openings), and two educational institutions in San Diego County supply 92 awards for this occupation, suggesting that there is a supply gap in the labor market.

Entry-level and median wages for this occupation are above the living wage. This brief recommends proceeding with a new program modification because 1) entry-level and median earnings are above the living wage and 2) a supply gap exists for these positions.

Bus and Truck Mechanics and Diesel Engine Specialists receive entry-level hourly earnings of \$22.33; this is more than the living wage for a single adult in San Diego County, which is \$15.99 per hour

## Program Goals

In the previous sections, you identified opportunities for improvement. Using these opportunities, develop 3-year **SMART goals** for your department. Goals should be Specific, Measurable, Attainable, Relevant, Time-Specific. Ensure your goals align with the mission of your department and/or **the College's Strategic Plan**.

Please list all discipline goals for this three-year planning cycle. [Click here for previous PRPs and goal information](#).

If you require any additional resources beyond your exiting budget, please be sure to request those resources in the next section titled "Resources".

### Goals

#### Goal 1

##### Brief Description

Create New Medium/Heavy Duty Electric Vehicle Program

##### Is this a new or existing goal?

New

##### How will you complete this goal?

# 1 Have already presented to Dean and Chair, received approval.

# 2 Currently writing Curriculum to present it to advisory Committee for approval in November 2021.

# 3 Submit Curriculum for approval year 2022

# 3 Have secured support from SEA electric as an industry partner, and has issued Letter of support. They are willing to help with technical support and help by giving at cost purchasing of equipment.

# 4 Look to secure funding with the help of Dean Wyche.

##### Outcome(s) expected (qualitative/quantitative)

Achieve items 1 thru 3 by next year 2022

##### How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

Addresses goals 2.5 and 2.6

##### Expected Goal Completion Date

12/31/2023

#### Goal 2

##### Brief Description

Hire second full time instructor

##### Is this a new or existing goal?

Existing

##### Goal Status

Ongoing

##### How will you complete this goal?

Request a new position for a full time faculty.

**Outcome(s) expected (qualitative/quantitative)**

If you look at many of the diesel programs around the country, you will find that the very successful ones you will always have at least two full time instructors. This allows for the division of duties between Diesel & The New Medium/Heavy Duty Electric Vehicle program which would include:

- #1 Recruiting of students
- #2 Reaching out to the community, industry, staying in touch with industry partners
- #3 Seeking and securing material donations
- #4 Seeking and securing grants and other forms of funding
- #5 Professional development: Training, conferences etc.
- #6 Providing fee based training
- #7 Running and managing scholarships
- #8 Being part of hiring committees and other campus functions
- #9 Advisory committees
- #10 Annual reports and admin functions to keep the program running.

**How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?**

Addresses goals 2.5 and 2.6

**Expected Goal Completion Date**

12/30/2023

**Goal 3****Brief Description**

Become a Kubota Tech training center part of expanding NC3 program certifications

**Is this a new or existing goal?**

Existing

**Goal Status**

Ongoing

**How will you complete this goal?**

Level 1 training has been completed. Need level two training. Initial equipment funding has been secured.

**Outcome(s) expected (qualitative/quantitative)**

We Will be able to train and issue Kubota training certifications to our students by using Kubota equipment and training materials just like regular Kubota technicians. This is an added value to our students and industry.

**How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?**

Addresses goals 2.5 and 2.6

**Expected Goal Completion Date**

12/30/2023

**Goal 4****Brief Description**

Update DMT 120 Air Brakes course.

**Is this a new or existing goal?**

New

**How will you complete this goal?**

- #1 Replace out dated Air Brakes Board
- #2 Purchase Air Brake interactive video series



**Outcome(s) expected (qualitative/quantitative)**

#1 Higher level of training for the students.

#2 Better learning experience for the student.

#3 Gives the students the opportunity to work and learn on the latest technologies

**How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?**

Addresses goals 2.5 and 2.6

**Expected Goal Completion Date**

12/30/2022

## RESOURCES

Congratulations! You are nearing completion. In this section, you will consider the resources you need to implement your three-year program review plan and/or address any findings from your assessment of your discipline.

The section is organized into the following four parts:

PART 1: Staffing Needs (Faculty and Additional Staff)

PART 2: Budget Review

PART 3: Technology and Facilities Needs

PART 4: One Time Request for Other Needs (NonTechnology Equipment, Supplies, Operating Expenses, Travel)

### PART 1: STAFFING NEEDS

Requests for faculty will follow the prioritization process currently in place in IPC, and the IPC SubCommittee. Requests for new staff positions will be prioritized at the division level and reviewed at Exec.

**Are you requesting additional full-time faculty?**

No

***NOTE: If you are requesting full-time faculty, you must go back to the Labor Market section of the form to complete that section. It is required when requesting additional faculty positions.***

**Are you requesting new Classified, CAST or AA positions?**

Yes

### REQUEST FOR ADDITIONAL CLASSIFIED, CAST, AA

#### Staff, CAST, AA request 1

**Title of position**

ISA 3

**Is this request for a full-time or part-time position?**

Full Time

**How does the position fill a critical need for current, future, or critical operations? e.g. accreditation, health and safety, regulatory, legal mandates, institutional priorities, program trend analyses of growth/stability**

By being a monitor and ensuring student safety is first, also assisting students and faculty with tools and equipment maintenance, equipment repair and facilities. Buy having additional supervision in the lab with our students more skill attainment and better mentoring can occur.

(Instructors not being spread so thin)

**Does the position assist in establishing more efficient District operations through either of the following: reorganization/restructuring OR use of technology?**

Yes this would help reorganize the Diesel Program.

**Is there funding that can help support the position outside of general funds?**

No

**Describe how this position helps implement or support your three-year PRP plan.**

It would help not just the faculty but also the student and help make the labs much safer and organized.

**Strategic Plan 2022 Objective**

1:3

1:4

**If the position is not approved, what is your plan?**

Look for funding.

**PART 2: BUDGET REVIEW**

Review your Budget/Expenditure reports for fiscal year 2019, 2020, 2021. Consider your three-year PRP plan.

Click on the link below to access directions to the *Available Budget Report* to complete this section.

**How to Request the Available Budget Report**

**Reflecting on your three-year PRP plan, are there any budget considerations you would like your dean/supervisor to be aware of for the upcoming year?**

No

**NOTE: PARTS 3, 4 and 5 – TECHNOLOGY, FACILITIES AND OTHER NEEDS**

1. One-Time Fund Requests. The college is implementing a process for prioritizing and allocating funds for one-time needs/requests tied to Program Review and Planning. Prioritization will take place through participatory governance in planning councils and the Budget Committee. Then, a recommendation will be made to Exec for funding of request utilizing various funding sources.

For more information about funding sources available, see **IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES**.

Consider submitting one-time requests only if you have verified that you cannot fund the request using your general discretionary funds or other funds.

2. Technology and Facilities Review. From now on, ALL requests for technology will go through an institutional review process. If you request technology here, you will see a description of the process below.

**PART 3: TECHNOLOGY AND FACILITIES NEEDS**

**Will you be requesting any technology (hardware/software) this upcoming year?**

Yes

**Technology Request****Technology Request 1**

**What are you requesting?**

Air Brake interactive video series.

**Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.**  
Video series that will enhance the learning experience of the student .

**Estimated Amount of Request.**

\$2,500.00

**If any, list ongoing costs for the technology (licences, support, maintenance, etc.)**

**Do you already have a budget for this request, or will you need additional funds?**

No

**What PRP plan goal/objective does this request align with?**

Goal #4 update DMT 120 Air Brakes course.

**What Strategic Plan 2022 Goal/Objective does this request align with?**

2:2

2:4

**If you have multiple requests for technology and had to prioritize, what number would give this? (1 = Highest)**

1

**Do you think that your request for technology will require changes to a facility?**

No

## Technology Request 2

**What are you requesting?**

Air Brakes board

**Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.**

State of the art Air Brakes Board made by LL Fab U.S. company. This board would help update our out dated air brakes board from 1991. This new board has all the latest technologies ie. Antilock brakes, collision avoidance radar etc.

**Estimated Amount of Request.**

\$140,000.00

**If any, list ongoing costs for the technology (licences, support, maintenance, etc.)**

**Do you already have a budget for this request, or will you need additional funds?**

No

**What PRP plan goal/objective does this request align with?**

Goal #4 update DMT 120 Air Brakes course.

**What Strategic Plan 2022 Goal/Objective does this request align with?**

2:2

2:4

**If you have multiple requests for technology and had to prioritize, what number would give this? (1 = Highest)**

2

**Do you think that your request for technology will require changes to a facility?**

No

### **Note about technology requests:**

*All technology requests will now go through a review process before prioritization.*

- *Your dean/director will send you a Technology Request Checklist (aka Technology Proposal Analysis Checklist).*
  - *You must complete this checklist and return it to your dean no later than 11/19/2021.*
  - *Once the dean approves the form and the request, the dean will send the document to the Technology Review Committee to determine IS resources needed, any integration issues, and/or potential overlap with existing technology.*
  - *The results of the review will be sent to the dean and chair with feedback.*

- The dean will determine whether or not the request moves forward for prioritization and/or implementation.
- Requests for one-time funding will move forward for prioritization.
- Requests that use funding from your department budget may move forward for purchase.

## Part 4: Facilities Requests

Do you have resource needs that require physical space or modification to physical space?

Yes

### Facilities Requests

#### Facility Request 1

What are you requesting?

New Facility to house the diesel program and the New Medium Heavy Duty Electric vehicle program

What discipline PRP plan goal/objective does this request align with?

Goal # 1 Create New Medium Heavy Duty Electric Vehicle Program

What Strategic Plan 2022 Goal/Objective does this request align with?

1:1

1:3

2:1

2:2

2:4

Provide a detailed description of the facilities item or space requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

New Facility to house the diesel program and the New Medium Heavy Duty Electric vehicle program.

The current facilities are no longer adequate for the Diesel program, there fore there is no way that the current facility would be able to house another program. There is no room for growth in the current facility and storage is a big problem now. The new Electric program would require major electrical infrastructure in order for it to be supported properly. For example Charging stations would be needed.

Is there an associated cost with this request?

Yes

Will you fund the request through your budget or other sources?

Grant funding

What impacts will this request have on the facilities/institution (e.g., water/electrical/ADA compliance)?

All of the above

## PART 5: OTHER ONE-TIME NEEDS

For more information about funding sources available, see [IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES](#). Please check with your department chair on the availability for this cycle.

Do you have one-time requests for other items (e.g., Non-Technology Equipment, Supplies, Operating Expenses, Travel) that your budget or other funding sources will NOT cover?

Yes

### Requests

#### Item 1

**What are you requesting?**

Funding for training for the New Heavy duty Electric Vehicle program

**Estimated Amount of Request.**

\$5,000.00

**Will you accept partial funding?**

No

**Budget Category**

Travel Expenses for Faculty

**What PRP plan goal/objective does this request align with?**

Goal # 1

**What Strategic Plan 2022 Goal/Objective does this request align with?**

4:3

**Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.**

Expenses for training for the New Heavy Duty Electrical program.

**Please upload a copy of the quote, if available.**

**I confirm that all full-time faculty in this discipline have reviewed the PRP. The form is complete and ready to be submitted.**

Yes

**Enter your email address to receive a copy of the PRP to keep for your records.**

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