

# CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT

*Due to the Student Academic Assessment Committee by October 15*



## PART 1: REPORT INFORMATION

Report Year and Contact Information			
<u>2018-2019</u>	<u>Jim Gore</u>	<u>Jgore@cnm.edu</u>	<u>50118</u>
<b>Academic Year</b>	<b>Contact Person</b>	<b>CNM Email</b>	<b>CNM Office Extension</b>

  

Subject of this Report
AT--DETC_CERT--Diesel Equipment Technology Certificate

## PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

<b>Program/Area Highlights and Successes</b> (Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at <a href="https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx">https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx</a> (access restricted to CNM employees) and other reports at <a href="https://www.cnm.edu/depts/opie">https://www.cnm.edu/depts/opie</a> .)
<p>For the academic year 2018 – 2019, which includes Fall 2018, Spring 2019 and Summer 2019, The Diesel Equipment Technology Program had 28 students graduate with a certificate. This included one Wagner Caterpillar Apprentice cohort that started in the Fall of 2018, which had 9 students. The remaining 19 students were from the general population. Our program graduates who wanted to work were successful in finding jobs in the field. The Wagner cohort students were all retained by their sponsoring shops. Most of our students from the general population found employment at the shop of their internship. Several other students were hired to work on Diesel trucks in light duty service facilities.</p>
<b>Changes Implemented During the Past Year in Support of Student Learning</b>
<p>In an effort to help students show proficiency in the language arts, the Diesel Equipment Technology program focused on providing the students with more opportunities to communicate via electronic and written repair orders (RO's). To help students become more proficient at applying critical thinking to solve workplace problems, we incorporated more lab and theory exercises that require the use of diagnostic trouble trees to arrive at the correct resolution to vehicle/equipment concerns.</p>

**PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING**

<b>Assessment Method</b>	<b>Type of Assessment Tool</b>	<b>Population or Course(s) Assessed</b>	<b>Graduate Learning Outcome(s) Assessed</b>	<b>Mastery Level</b> (E.g., "Minimum score of 3 on a rubric scaled 0-4" or "Minimum score of 75%")	<b>Targeted % Achieving Mastery</b>	<b>Outcome</b>
Instructor evaluation based upon repair orders generated for class.	Direct & Internal	DETC 2121 Diesel Engine Performance	2. Show proficiency in the language arts, communications, science, and math skills required in the automotive service industry.	Minimum score of 3 on a rubric scaled 0-4.	83%	Target met
Instructor evaluation based upon skills demonstrated during the simulated live work environment of PM class.	Direct & Internal	DETC 2194 Preventive Maintenance Lab	3. Apply critical thinking skills to solve workplace problems.	Minimum score of 3 on a rubric scaled 0-4.	91%	Target met
Instructor evaluation based upon interview of expert performer who supervised student during internship.	Indirect & External	DETC 2198 Diesel Equipment Internship	2. Show proficiency in the language arts, communications, science and math skills required in the automotive service industry.	Minimum score of 3 on a rubric scaled 0-4.	94%	Target met
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**Summary of Assessment Findings**

For the two SLO's assessed this cycle, we find that 90% of our certificate students possess language arts and critical thinking skills acceptable to industry. Not measured directly by the rubrics, there is significant anecdotal data to indicate that our graduates continue to need more practice with grammar, spelling and sentence mechanics. Additionally, we notice that the Wagner Apprentice cohort of students score better on the rubrics than the general population students.

**Interpretation of Assessment Findings**

We believe that the data indicates that students are generally prepared to enter the workforce. We are concerned that students are having trouble using correct grammar and sentence structure. We believe that the Wagner Apprentices tend to score better because of the pre-selection and hire process that candidates are subjected to.

**Action Plan in Support of Student Learning** (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)

For improvement in the language arts, we will modify assignments to ensure greater emphasis is placed on communicating within the constructs of the repair order. We will provide greater feedback to the students on the grammar and language usage that they utilize.

To help students become more proficient at applying critical thinking to solve workplace problems, we will incorporate more lab and theory exercises that require the use of diagnostic trouble trees to arrive at the correct resolution to vehicle/equipment concerns.

**Please select all of the following that characterize the types of changes described in the above action plan:**

- Assessment criteria revision
- Assessment methodology revision
- Assignment revision
- Budgetary reallocation
- Change in teaching approach
- Course content revision
- Curricular Revision
- Faculty training/development
- Process revision

<b>Recommendations, Proposals, and/or Funding Requests</b>	<b>Budget Needed</b>
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**PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN** (including any revisions) – **OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

<b>Years of Full Cycle</b>	<b>Next Year's Assessment Focus</b> (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
6	Next year's assessment will start the assessment cycle over for year one, beginning with work safely and in an environmentally responsible manner.

Graduate Learning Outcomes to Be Assessed	Years in which Assessment Is Planned	Population/Courses to Be Assessed	Planned Assessment Approach
1. Diagnose and repair vehicle mechanical, electrical, and computer-managed systems.	3,4	All program courses	Average of scores earned on hands-on (practical) exams that are given during each program course.
2. Show proficiency in the language arts, communications, science, and math skills required in the automotive service industry.	5,6	DETC 2121 and DETC 2198	Rubric filled out based on assignments in Engine Performance, Rubric filled out by master technician during internship.
3. Apply critical thinking skills to solve workplace problems.	5,6	DETC 2194	Rubric completed based on lab performance during Preventive Maintenance class. (Chosen because of live work on equipment).
4. Work safely and in an environmentally responsible manner.	1,2	DETC 1131	S/P 2 mechanical safety and hazardous material testing; incident report review. S/P 2 is web-based training with objective tests. Incident review will utilize existing safety rubric.
5. Perform basic word processing and computer database searches for repair information.	3,4	DETC 2198	Interview with the master technician that the students performs internship with.
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