

Program Review Executive Summary

Diesel Equipment Technology

Majors Reviewed:

- *On-Site Power Generation, A.A.S.*
- *Diesel Technology, A.A.S.*
- *Diesel Technician, Certificate*

2015



The Diesel Technician (DC), Diesel Technology (DD), and On-site Power Generation (PW) majors continue to be positively impacted by the Marcellus Shale energy activity in the region. Traditional industry support and requests to partner with these majors continues to grow and has fostered new relationships.

Equipment needs for DC and DD enjoy strong industry support; however, keeping the latest technology in the labs remains a focus of faculty and staff. PW also enjoys strong industry support in the form of equipment donations. Additionally, the College recently purchased several new power generation sets and renovated a dedicated lab space for this major.

Each major has dedicated and active advisory boards that offer technical advice on curriculum and equipment donations. Many advisory board members recruit and hire our graduates. The department continually seeks to add new members and expand the knowledge base of these boards.

DC and DD have recently received reaccreditation (2014) by the National Automotive Technicians Education Foundation (NATEF). PW continues its relationship with the Electrical Generating Systems Association (EGSA) and is exploring the association's new Technician Certification, Apprentice Level. Currently, no accrediting body exists for this major.

Faculty continue to administer end of program testing in the form of Automotive Service Excellence (ASE) Student Certification exams. Information from these exams is used for Outcomes Assessment and process improvement. Continuing to administer the exams will provide more longitudinal data for analysis.

The employment outlook for these majors continues to be strong as evidenced by the number of employers attending Penn College's Career Fair and using on-campus recruiting and the online Career Hub to hire graduates.

Curriculum recommendations:

- Add a program goal to DC, DD, and PW relating to student knowledge of emissions. As of 2014, EPA laws dictate that industrial engines have Tier 4 emissions. This is a theme that is discussed frequently in CAT advisory meetings.
- Seek to add new advisory board members from reputable industry partners who can provide sound advisement in areas of PW and DD/DC curriculum.
- Review new ASE/NATEF standards with DD/DC faculty to determine if the ASE/NATEF time allotment aligns with course objectives met during lecture and laboratory sessions.
- Continue using ASE student testing for outcomes assessment, and ensure that all other courses not included in ASE testing are on a three-year cycle for outcomes assessment.
- Proceed with EGSA Apprentice level testing for Power Generation students as a method of outcomes assessment.
- Proceed with the Freightliner "Get Ahead" program and evaluate its effectiveness with DD/DC student learning.

Equipment recommendations:

- Continue to use current model engines for engine overhaul, electronic engines, advanced fuel systems, and emissions courses. Add items to the Master Equipment List (MEL) as needed.
- Purchase new or used current-model heavy duty trucks for electrical, powertrain, and air conditioning courses. Add items to the MEL and budget as needed.

- Continue to use current engine, truck, refrigeration, power generator and transmission software programs. Build training opportunities into upcoming budgets.
- Explore purchasing a hydraulic training board for DD students to improve student learning.
- Explore purchasing an air disc brake display to improve student learning on disc brakes.
- Explore purchasing better tooling for natural gas engines.