STATIONARY POWER GENERATION (SPWG)

SPWG 170A
Power Systems 1
5 Units (AA/AS; CSU)
72 lecture hours, 60 lab hours
Equivalent to: MTRK 170A
Grade Mode: Standard Letter
Prerequisite(s): MTRK 159 or by department consent based off of experience and/or industry certification.
Strongly recommended: ENGL 101 and MATH 144.
Intended for diesel technology students seeking a career in the power generation sector, this course is designed to introduce students to the field of electric power generation. Students will be provided with the knowledge and skills necessary to understand the theory and principles of diesel power generation. Included will be theories on DC and AC voltage systems in both the low voltage and high voltage applications with an emphasis on generator construction and operation. This course is designed to prepare students for the EGSA or CEP certifications.

SPWG 170B
Power Systems 2
5 Units (AA/AS; CSU)
72 lecture hours, 60 lab hours
Equivalent to: MTRK 170B
Grade Mode: Standard Letter
Prerequisite(s): SPWG 170A or by department consent based off of experience and/or industry certification.
Strongly recommended: ENGL 101 and MATH 144.
Intended for diesel technology students seeking a career in the power generation sector, this course provides an in-depth study and hands-on activity in delivering, maintaining, troubleshooting and repairing current and legacy production Caterpillar Generator Sets operating as single units. This course is a continuation of the Power Generation series of courses designed to prepare students for the EGSA or CEP certifications.

SPWG 171
Advanced Power Systems Controls
4 Units (AA/AS; CSU)
54 lecture hours, 54 lab hours
Equivalent to: MTRK 171
Grade Mode: Pass/No Pass, Standard Letter
Prerequisite(s): SPWG 170A by department consent based off of experience and/or industry certification.
This course is intended for the diesel technology student intending to pursue a career in stationary power generation maintenance and repair. The last course in the series for Power Generation, this course will provide a basic overview of ATS components and operations. This course will provide a background in UPS battery systems as well as flywheel energy storage systems. This course will prepare students for the EGSA or CEP certifications.