

DEALER SERVICE TECHNOLOGY

pcc.edu/programs/think-big/

CAREER AND PROGRAM DESCRIPTION

This program is a partnership between Portland Community College, Caterpillar Corp and the four Northwest Caterpillar dealerships. It is an industry specific two-year associate degree program with required on-the-job training/internships at a sponsoring Caterpillar dealership. It is designed to prepare individuals to become qualified Caterpillar service technicians. Students learn how to work on many types of Caterpillar equipment including agricultural, construction, forestry, power generation, and earth moving equipment.

The Dealer Service Technology Program combines technical and academic education with real world experience through paid on the job training. Students learn about engine fundamentals, machine hydraulics, fuel systems, electrical systems, transmissions, torque converters, undercarriage, final drives and more. During the four paid internships students have the opportunity to experience a future career firsthand through on-the-job training. Upon completion of the program students will earn an Associate of Applied Science Degree from Portland Community College.

DEGREES AND CERTIFICATES OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Caterpillar Electric Power- ThinkBIG
Dealer Service Technology

Academic Prerequisites

- Applicants must take the placement test administered through the testing center at PCC, or a center provided by their CAT dealer contact person.
- Required minimum program entrance level requirements: placement into WR 115 or higher, placement into RD 115 or higher and placement into MTH 60 or higher.
- This is a limited entry program.
 - Application and acceptance process: All prospective students must apply to PCC and their prospective sponsoring CAT dealership. For details on final program acceptance and other information contact 971-722-7465.

Academic Requirements

- Students must meet general education and comprehensive degree requirements.

Non-Academic Prerequisites

- Prospective students must sign a release of information form to allow their CAT dealership access to their educational records and PCC the ability to share information with the dealership. To begin the program, students must secure a paid CAT dealer internship (required to stay in program).
- Final selection for this program is based on the capacity of each CAT dealership's allotted seats in the program and actual hire as a CAT intern by a sponsoring CAT dealership. This is a two year, nine term program (24 months).

Non-Academic Requirements

- None

ASSOCIATE OF APPLIED SCIENCE DEGREE

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CATERPILLAR ELECTRIC POWER-THINKBIG AAS DEGREE

Minimum 95 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning.

Caterpillar Electric Power-ThinkBIG Degree Courses

Code	Title	Credits
APR 103 or APR 123	LME: AC Motors & Transformers AC Theory for Motors and Transformers	4
DST 110	Caterpillar Engine Fundamentals	8
DST 111	Introduction to Caterpillar Service Industry	3
DST 112	Caterpillar Hydraulic Fundamentals §	4
DST 113	Caterpillar Engine Fuel Systems	4
DST 114	Fundamentals of Electrical Systems §	4
DST 150	Caterpillar Service Technology Internship	12
DST 201	Machine Electronic Systems	4
DST 202	Caterpillar Engine Performance	3
DST 210	Generators and EPG Calculations	3
DST 211	Control Panels and Data Links	3
DST 212	Voltage Regulation	3
DST 213	Automatic Transfer Switches	3
DST 270	Caterpillar Electric Power Generation Internship	12
WLD 217	Diesel Welding	3
WR 121	Composition I (WR121=WR121Z) Z	4
	AC/DC Theory Electives	3
	Advanced AC Electrical Electives	3
	General Education: 4 courses	
Total Credits		95

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Course cannot be substituted with another course.

Z
This course is part of Oregon Common Course Numbering. WR 121 and WR 121Z are equivalent.

AC/DC THEORY ELECTIVES

Code	Title	Credits
APR 102	LME: DC Motors	3
APR 122	AC/DC Motors Principles	3
EPG 102	AC/DC Theory	6

ADVANCED AC ELECTRICAL ELECTIVES

Code	Title	Credits
APR 124	Electrical Systems Operations	3
APR 201	Electrical Motor Controls	2
APR 221	Advanced AC Circuitry	3
APR 223	Motor Control Operations including PLC's	3

DEALER SERVICE TECHNOLOGY AAS DEGREE

Minimum 97 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Math/computation competency is met through the

courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning.

Course of Study

The coursework listed below is required. The following is an example of a term-by-term breakdown.

First Term		Credits
DST 110	Caterpillar Engine Fundamentals	8
DST 111	Introduction to Caterpillar Service Industry	3
WLD 217	Diesel Welding	3
Second Term		
DST 150	Caterpillar Service Technology Internship (Part I)	6
General Education: 1 course		
Third Term		
DST 112	Caterpillar Hydraulic Fundamentals §	4
DST 113	Caterpillar Engine Fuel Systems	4
DST 114	Fundamentals of Electrical Systems §	4
Fourth Term		
First Module		
DST 150	Caterpillar Service Technology Internship (Part II)	6
Second Module		
DST 115	Air Conditioning	3
DST 116	Fundamentals of Transmissions and Torque Converters	4
DST 203	Caterpillar Machine Diagnostic	3
General Education: 1 course		
Fifth Term		
DST 150	Caterpillar Service Technology Internship (Part III)	6
Sixth Term		
DST 200	Undercarriage and Final Drive	4
DST 201	Machine Electronic Systems	4
General Education: 2 courses		
Seventh Term		
DST 150	Caterpillar Service Technology Internship (Part IV)	6
Eighth Term		
DST 117	Caterpillar Machine Hydraulic Systems	4
DST 202	Caterpillar Engine Performance	3
DST 204	Machine Specific Systems	6
WR 121	Composition I (WR121=WR121Z) ^Z	4
Total Credits		97

§ Course cannot be substituted with another course.

Z This course is part of Oregon Common Course Numbering. WR 121 and WR 121Z are equivalent.