**THE PROGRAM**

The Caterpillar® Dealer Service Technician program helps you develop the skills you’ll need to diagnose and repair tractors, trucks, graders, excavators and the rest of the Cat equipment line. You’ll work with the latest diagnostic tools, current machines and components as you complete your lab assignments. As a bonus, you’ll earn an Associate of Science Degree from San Joaquin Delta College when you finish. Earn while you learn by serving four paid internships at your sponsoring Cat dealership.

Heavy equipment technicians are in high demand and earn excellent pay and benefits. Think BIG about your future.

**COLLEGE COURSEWORK**

**Freshman Year (Fall)**

**Caterpillar Service Industry (CAT 80) — 3 units**
This course is an overview of the Caterpillar organization, basic shop safety, dealer shop structure and equipment. You’ll learn the Service Information System (SIS), a computer-based source for parts, repair and maintenance information.

**Caterpillar Engine Fundamentals (CAT 81) — 4 units**
Begin by starting your high-horsepower CAT 3406 engine. During the next 9 weeks, you’ll disassemble, inspect, measure, reassemble and make adjustments to your engine. Along the way, you’ll learn diesel engine systems and proper service procedures.

**Agricultural Welding (AGEGR 21) — 2 units**
Learn the welding processes used in the equipment industry. You’ll experience arc and acetylene welding and study hard facing, brazing, flame cutting, electrode selection and metal identification.

**Ag/Natural Resources Mathematics (AGBUS 013) — 3 units**
An introduction to arithmetic and algebraic functions used in plant production, farm machine outputs, construction costs, feed ingredients and farm finance. You’ll use fractions, decimals, equations, percentages, ratios, area and volume measurements and more. AGBUS 013 fulfills the Learning Skills (B) requirement for the AS degree.

**Introduction to College and Educational Planning (CLUD 019) — 1 unit**
An overview of the college experience and the educational planning process through counseling and advising, the course assists students in making academic decisions and establishing career goals.

**OJT (On-the-Job Training) - I (CAT 69V) — 4 units**
Earn as you learn under the supervision of trained technicians at one of the sponsoring Caterpillar dealerships. You’ll rotate between training at SDIC and practicing at the dealer work site in real-world applications. 40 hours/week.

**Freshman Year (Spring)**

**Fundamentals of Hydraulics (CAT 82) — 3 units**
This course is a practical study of hydraulic systems, principles and components – the heart of most current Caterpillar machines. You’ll learn to service and maintain modern systems and lay the foundation for more advanced courses.

**Caterpillar Engine Fuel Systems (CAT 83) — 3 units**
Building on the engine fundamentals class, you’ll learn how modern Cat fuel systems operate, how they generate 25-30,000 psi, and the service procedures needed to test and adjust them.

**Fundamentals of Electrical Systems (CAT 84) — 3 units**
You’ll learn the electrical fundamentals that lay the foundation for diagnostic skills taught in later classes. The use of the Digital Volt-Ohm Meter is emphasized as you learn to test electrical circuits, components and starting / charging systems.

**Conservation of Natural Resources (NR 002) — 3 units**
You’ll examine the need, importance, and philosophy of conservation of natural resources in our contemporary world. Current environmental issues are discussed from local, national and global perspectives. NR 002 fulfills the Natural Science requirement for the AS degree.

**Introduction to Business (BUS 020) — 3 units**
This course builds an understanding of the market economy, the business environment, economic systems, management, organization and operation of businesses from a unique Caterpillar perspective. BUS 020 fulfills the Contemporary Perspectives requirements for the AS degree.

**OJT - II (CAT 69V) — 4 units**
Paid internship at your sponsoring Caterpillar dealer. 40 hours/week.

**Freshman Year (Summer)**

**Caterpillar Air Conditioning (CAT 85) — 2 units**
Learn the theory and uses of air conditioning in agricultural, commercial, industrial and residential applications. You’ll recover, recycle and recharge refrigerant as you learn to use the service equipment of the industry – refrigerant identifiers, leak detectors and gauge manifolds. You’ll become proficient at interpreting system pressures, electronic controls, sensors and control logic.

**Fundamentals of Caterpillar Power Trains (CAT 86) — 3 units**
In this course, you’ll disassemble, examine and reassemble a broad range of Cat transmissions, torque converters and flywheel clutches. From manual to automatic, power shift to hydrostat, you’ll learn about power flow, transmission controls, system operation and adjustments.

**Caterpillar Machine Hydraulic Systems (CAT 87) — 3 units**
This advanced hydraulic systems class develops your skills in reading and interpreting schematics. You’ll learn the maintenance procedures and tools required to diagnose and repair hydraulic problems in Cat machines and components.

**OJT - III (CAT 69V) — 4 units**
Paid internship at your sponsoring Caterpillar dealer. 40 hours/week.

**Sophomore Year (Fall)**

**Caterpillar Undercarriage and Final Drives (CAT 90) — 3 units**
In this course, the parts that move Cat machines are investigated – tracks and associated elements, drivelines, differentials, axles, final drives and brakes. You’ll learn procedures to disassemble, assemble and maintain these components to maximize machine uptime.

**Caterpillar Machine Electronic Systems (CAT 91) — 3 units**
Caterpillar electronically-controlled fuel systems make up the bulk of the work in this class. You’ll discover how an Electronic Control Module (ECM) looks at sensor inputs and determines proper fuel metering and injection cycles. You’ll examine system performance, interpret diagnostic codes and follow prescribed troubleshooting procedures using the laptop computer and Electronic Technician (ET).

**Preparatory English (ENG 079) — 5 units**
Designed to develop the skills necessary for college level English composition, this course concentrates on writing well-organized paragraphs and essays, improving reading comprehension and reviewing grammar and usage. ENG 079 fulfills the Learning Skills (A) requirements for the AS degree.

**Small Group Communication (COM ST 006) — 3 units**
You’ll learn how to work at the dealership. This course develops your abilities to communicate effectively, plan meetings, make group decisions, understand modes of communication, manage conflict, and enhance listening skills. COM ST 006 fulfills the Learning Skills (C) requirements for the AS degree.

**Child, Family, and Community (CDEV 026) — 3 units**
In this course you’ll study the interactive nature of child, family and community influences on development. Community resources and advocacy are also explored. CDEV 026 fulfills the Social Science (B) requirements for the AS degree.

**OJT - IV (CAT 69V) — 4 units**
Paid internship at your sponsoring Caterpillar dealer. 40 hours/week.

**Sophomore Year (Spring)**

**Caterpillar Engine Performance (CAT 92) — 2 units**
Engine performance and reliability are the focus of this class. While you learn to monitor parameters like fuel consumption, manifold pressure, intake air temperature and others, you’ll develop the knowledge and diagnostic skills needed to troubleshoot Cat diesel engines.

**Caterpillar Diagnostic Testing (CAT 93) — 2 units**
An in-depth study of machine diagnostics and repair techniques, you’ll learn proper selection and use of Caterpillar diagnostic tools. The majority of your time will be spent on the iron diagnosing and correcting machine problems.

**Caterpillar Machine Specific Systems (CAT 94) — 2 units**
This course is designed to develop the skills needed to test and adjust specific Cat machine systems on various models supplied by the sponsoring Cat dealers.

**American Government and Institutions (POLSC 001) — 3 units**
An introduction to government and political processes at the national, state and local level. POLSC 001 fulfills the Social Science (A) requirements for the AS degree.

**The Film as Literature (ENG 030) — 3 units**
A study of the cinema genre with emphasis on artistic and literary values, ENG 030 fulfills the Humanities (C) requirements for the AS degree.
**HOW TO APPLY**

• Contact the representative for the Caterpillar dealer in your area (listed below) and request an information packet on the program.

• Return the completed application materials found in the packet.

• Register at Delta College and complete the required assessments.

• Interview with your local Cat dealer and be accepted for sponsorship.

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**CONTACT INFORMATION**

**HAWTHORNE MACHINERY CO.**
Jim Champany  
General Service Manager  
16945 Camino San Bernardo • San Diego, CA 92127  
858.674.7195  
e-mail: jchampany@hawthornecat.com  
www.hawthornecat.com

**PETERSON TRACTOR CO.**
Patty Pistello  
Employee Relations Manager  
955 Marina Blvd. • San Leandro, CA 94577  
510.618.2977  
e-mail: ppistello@petersonholding.com  
www.petersontractor.com

**HOLT OF CALIFORNIA**
Max Jones Jr.  
Training Development  
7310 Pacific Avenue • Pleasant Grove, CA 95668  
916.991.8234  
e-mail: mjones@holtca.com  
www.holtca.com

**QUINN COMPANY**
Kimberly Newton  
Senior Recruiter  
10006 Rose Hills Rd. • City of Industry, CA 90601  
562.463.4036  
e-mail: knewton@quinngroup.net  
www.quinngroup.com

**JOHNSON MACHINERY**
Tracy Chaffin  
Human Resources Manager  
800 East La Cadena Dr. • Riverside, CA 92507  
951.774.3289  
e-mail: chaffin_tracy@johnson-machinery.com  
www.johnson-machinery.com

**SAN JOAQUIN DELTA COLLEGE**
5151 Pacific Avenue • Stockton, CA 95207  
www.deltacollege.edu

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