



Automotive Student Service Education Training

**Ford ASSET is a partnership** between Ford Motor Company, Dealerships, and Columbus State Community College. The program provides students the opportunity to become **highly trained technicians** employed by Ford, Lincoln, Mercury, or Mazda dealerships. The program:

- **Trains students to diagnose**, service, and maintain vehicles using Ford recommended procedures, special tools, and service publications.
- Ensures that ASSET-trained technicians can easily become familiar with new systems and components as they are introduced.
- Provides **Paid Work Experience** during the program to reinforce what is being taught in the classroom.
- Allows an ASSET-trained student to earn an **Associate's Degree** in Automotive Technology, **ASE Certifications**, and, most importantly, **Ford STST Certifications**.

## How the program works

Ford ASSET is an Associate Degree program divided into 2 parts. The Maintenance and Light Repair program is completed first. Then, Ford specific instruction begins with **11 weeks of classroom/lab** instruction alternated with **11 weeks of paid co-op work experience** at a sponsoring Ford, Lincoln, Mercury, or Mazda dealership. For more details, see the **Plan of Study**.

## Your responsibilities

To participate in the ASSET program, you will need to:

- Be sponsored by a Ford, Lincoln, Mercury, or Mazda dealership (You are ultimately responsible for obtaining the sponsorship, but we will assist you in any way that we can. This is not a financial sponsorship).
- Cover program costs, including tuition, fees, books, and tools
- Be a conscientious and productive employee of your sponsoring dealership.
- Have a valid driver's license with less than 6 points.
- Be accepted by CSCC

## You and the dealer

Sponsoring Ford, Lincoln, Mercury, or Mazda dealers play a vital role in ASSET. Each dealer:

- Interviews and selects prospective students for employment.
- Provides the work experience that reinforces classroom instruction.
- Pays you for working at the dealership.

- Supplies you with uniforms (in keeping with dealership policy).

### **Ford Motor Company's role**

Ford is the driving force behind the ASSET program. The company:

- Is involved in ASSET instructor selection.
- Provides ASSET instructors with advanced technical training.
- Supplies Columbus State with training vehicles, components and training materials.

## **Getting Started in Ford ASSET**

- ❑ Study this website/document thoroughly so that you have a good understanding of how the ASSET program works.
- ❑ Go to <http://cscce.edu/Students/Prospective/index.htm> and <http://cscce.edu/Students/Prospective/stepbystep.htm> for help in getting enrolled at Columbus State.
- ❑ Apply to Columbus State on-line at <https://secure.cscce.edu/application/default.asp>
- ❑ Take the COMPASS Placement Test. <http://www.cscce.edu/testingcenter/compass.htm>
- ❑ Meet with ASSET Coordinator – Chuck Wilson (Make an appointment)
- ❑ Apply for Financial Aid - Go to <http://cscce.edu/FinancialAid/fin-apply.htm>
- ❑ Register for Classes. Registration starts the 5<sup>th</sup> week of each quarter for the next quarter. Many classes fill up that week. It is highly recommended that you register as early as possible to get the classes and times that you want.
- ❑ Start Maintenance & Light Repair classes – See Plan of Study
- ❑ Obtain Driver's License Abstract - [http://www.bmv.ohio.gov/driver\\_license/abst.htm](http://www.bmv.ohio.gov/driver_license/abst.htm)
- ❑ Pre-Sponsorship Interview with Coordinator (After completion of 4 technical courses and 3 non-technical classes)
- ❑ Interview with Sponsoring Dealer

The Automotive Department Staff and Faculty are here to help you through each step of your journey, from the first visit to graduation!

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# ASSET Plan of Study

The ASSET program is divided into 2 parts:

1. Maintenance and Light Repair (MLR)
2. ASSET Ford-Specific Technology

## Maintenance and Light Repair

<ul style="list-style-type: none"> <li>❑ Complete the following general automotive courses:           <ul style="list-style-type: none"> <li>○ Auto 061 – Basic Automotive Systems (Prerequisite)</li> <li>○ Auto 062 – Auto Shop Orientation (Prerequisite)</li> <li>○ Auto 140 – Suspension and Steering Systems</li> <li>○ Auto 150 – Brake System Theory and Operation</li> <li>○ Auto 160 – Electrical Systems Theory and Operation</li> <li>○ Auto 170 – Heating and AC Systems Theory and Operation</li> </ul> </li> <li>❑ Complete any developmental courses listed on your COMPASS Test results.</li> <li>❑ Complete 5 out of the 10 required non-technical courses listed below.</li> </ul>
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## ASSET Ford-Specific Technology

### On-Campus Quarters

### Dealership Quarters

1 <sup>st</sup> Quarter (Sept 23 – Dec 12, 2009)	2 <sup>nd</sup> Quarter (Jan 4 – Mar 20, 2010)
Ford 100 – Introduction to Ford Technology Ford 101 – Basic Engines Ford 103 – Manual Transmission/Driveline Non-technical class	Ford 301 – Cooperative Work Experience/Seminar 1 Ford 114 – Steering and Suspension Non-technical class
3 <sup>rd</sup> Quarter (Mar 29 – June 12, 2010)	4 <sup>th</sup> Quarter (June 28 – Sept 11, 2010)
Ford 116 – Automotive Electronics Ford 108 – Engine Performance Ford 164 – Electronic Steering/Suspension Ford 165 – Antilock Braking Systems Non-technical class	Ford 302 – Cooperative Work Experience/Seminar 2 Ford 111 – Diesel Engines Non-technical class
5 <sup>th</sup> Quarter (Sept 22 – Dec 11, 2010)	6 <sup>th</sup> Quarter (Jan 3 – Mar 19, 2011)
Ford 102 – Automatic Transmissions Ford 126 – Advanced Engine Performance Ford 270 – Advanced Climate Control Non-technical class	Ford 303 – Cooperative Work Experience/Seminar 3 Non-technical class

## Non-Technical Courses required for Associate Degree

ENGL 101 – Beginning Composition	English Elective – ENGL 200 or 204
ENGL 102 – Essay and Research	COMM 105 – Speech (or substitute COMM 110)
Humanities Elective – HUM 111,112,113,151,152,or224.	CIT 101 – Computer Applications 1
Business Elective – BMGT101, FMGT101, or BMGT231	Math 101 – Business Math (or Math 103 or higher)
Social Science Elective-SSCI 101,102,104,105,or Soc 202	Science Elective – NSCI 101 or PHYS 100

## **Dealer Sponsors and Placement**

To complete the ASSET program, a student must be employed by a sponsoring Ford, Lincoln, Mercury, or Mazda dealer. The dealership service department provides work experience under the guidance of an experienced technician during the Paid Cooperative Work Experience.

### **To obtain a sponsor:**

- ⇒ Complete at least 4 technical classes and 4 non-technical classes in the Maintenance and Light Repair section of the program. See Plan of Study.
- ⇒ Contact the Ford ASSET Coordinator for a pre-sponsorship interview.
- ⇒ Prepare resume so that the coordinator can send it to prospective dealers.
- ⇒ The Coordinator will contact dealers to obtain interview opportunities.
- ⇒ The student must then interview with prospective dealers.

When choosing a dealer, the student needs to consider the long-term goals he/she has. The dealer is part of this program because he/she wants to “grow their own” technicians. The dealer wants a well-trained entry-level technician by the end of the program that is willing to work for them long-term. Although there is no legal contract that requires you to stay with the dealer, it is best for the student, the dealer and future students in the ASSET program when a long-term relationship exists. The dealer will spend a lot of time, energy, and money to train the student. Obviously, he/she needs to realize a return on that investment. Carefully choosing the dealer ahead of time helps to develop a good long-term relationship with the sponsoring dealership.

## **Cooperative Work Experience**

The Cooperative Work Experience (Co-op) is the ingredient that makes ASSET work so well. After some on-campus course work (see Plan of Study), the student goes to the sponsoring dealer for real-world work experience. An experienced technician is assigned the task of mentoring the student. He/she gives the student vehicles to diagnose and repair under his/her supervision. The “lead-tech” is responsible for assigning the correct type of work, verifying the student’s diagnosis, and then checking the completed repairs before the vehicle leaves the dealership.

The customer vehicle concerns scheduled into the dealership each day ultimately determines the type of work that is assigned to the student. The lead-tech is encouraged to assign the type of work that will reinforce what was taught during the previous quarter technical classes. The goal is to have the student working on those previous quarter skills at least 60% of the time. The remainder of the time can be skills learned earlier in the program or can even be vehicles or systems that the student is not familiar with yet. Obviously, close supervision by the lead-tech is required in this case.

The student is required to maintain a logbook during the co-op quarter. In this book, he/she will track work hours and attendance, the tasks he/she has accomplished, and the vehicles that he/she has worked on. The purpose of the logbook is to help the student determine his/her own progress in skill development and productivity.

The instructor will visit the student at the dealership 2 or 3 times during the co-op quarter. The purpose of the visit is to evaluate the progress of the student and to insure that the co-op experience is going well. The instructor will check the logbook and discuss the student’s progress at school and work with the service manager and the lead-tech. All parties will meet to discuss any progress or concerns and determine any corrective action that might be necessary.

The student is paid during the co-op quarter. The dealer provides uniforms in accordance with dealership policy. The student is an employee of the dealership and must be a productive and cooperative employee, following all dealership policies and procedures. It is important for the student to understand that each dealership is privately owned and operated by individuals that are not employed by Ford Motor Company. Therefore, each dealership reserves the right to conduct co-op experiences in a way that is beneficial to the dealership. The process described above is highly suggested but is not made mandatory by Ford Motor Company or Columbus State.

## **Work Outside of the Official Co-op**

The official co-op experience starts on the first day of the academic quarter and ends on the last day of final exam week. Students usually elect to work during non-co-op times as well. This is encouraged as long as the extra work does not interfere with progress in classes at the college. During a full-time on-campus quarter, the student is highly encouraged not to work any more than 20 hours per week. The work assigned during non-co-op times is determined by the dealership. The dealership is not required to have the student assigned to a lead-tech and is not required to have him/her working on tasks listed in the logbook.

## **Recommended Pay During Co-op**

The local Ford ASSET Advisory Committee is responsible for establishing guidelines for the participating dealers in regard to starting pay rates and merit increases for ASSET students. Most dealers follow these guidelines but are not mandated to do so.

Currently in the Columbus Metro area, the recommended **starting wage is \$9.00 per hour**. Merit raises at the beginning of the 2<sup>nd</sup> and 3<sup>rd</sup> co-op quarters should be congruent with the student's ability as well as progress in the following:

- Attendance
- Completion of Web-Based Courses
- STST Course Certification Status
- Academic Progress (grades and course completion)

## **Program Certification**

The Ford ASSET program is Master-certified by NATEF, ASE's Educational Branch. The program is Master Certified, which means that it is certified in all eight ASE areas.

## **Instructor Certification**

The instructors are also Master-Certified by ASE. In addition, the instructors have completed the necessary instructor training through Ford Motor Company and are certified by Ford Motor Company to deliver STST (Service Technician Specialty Training) Certification courses.

## **Student Certifications**

The students will have the opportunity to earn Ford STST Certifications as part of the program. The program covers approximately 90% of all Ford STST Certification courses. Students must attend each class, complete all assignments, and pass the written and hands-on STST

evaluations. The records for these courses are recorded on Ford's database (STARS2). When a student has all the courses in a particular STST area completed, he/she will be qualified for Ford STST Certification in that area. All earned STST credentials are awarded upon graduation from the ASSET program.

Students are encouraged to prepare for ASE certifications as well. ASE tests are given in May and November of each year. Ford Motor Company will reimburse students for the test fees for all ASE tests (A-1 through A-8) that the student passes. For more information about ASE, go to [www.ase.com](http://www.ase.com).

## **Drivers License**

The student is required to have a valid driver's license. Each dealership's insurance company has requirements particular to that dealership. Most dealers require less than 6 points; some may be less than 4 points. Some dealerships look at the type of infractions more than the number of points. Before interviewing with dealerships, the student needs to provide a Driver's License Abstract to the Ford ASSET Coordinator. To obtain the abstract, to go to the Bureau of Motor Vehicles at 1970 W. Broad Street or 1583 Alum Creek Drive in Columbus, Ohio. The BMV will print a report for the student upon request. The student can also go to [http://www.bmv.ohio.gov/driver\\_license/abst.htm](http://www.bmv.ohio.gov/driver_license/abst.htm) to obtain a form to mail in. Mail-in processing takes about 2-3 weeks.

## **Costs**

- Because CSCC is a state-supported college, approximately half of the costs of providing good instruction are covered by federal and state funds. Non-state-funded schools have to charge their students substantially more.
- CSCC's cost per credit hour is \$79.00. Full-time students average 14 credits per quarter at a cost of \$1064.00 plus books and fees are paid by the quarter. You can pay as you go.
- The average student will spend approximately \$8208 total for tuition, books, and related fees to obtain a 2-year Associate's Degree. Most colleges are more than that for just one year.
- Receiving credit for basic courses based on the student's performance in their vocational program can reduce costs. Up to 37 credits can be obtained for savings additional savings of up to \$2356.

## **Statewide Articulation Agreements**

Columbus State has an Articulation Agreement with every high school automotive training program in the state of Ohio. This agreement allows students to receive credit for the courses listed below if the student has **earned an "A" or "B"** during that subject and is competent in the tasks listed for that course.

The following courses are eligible for articulation credit:

- CIT 101 – PC Applications 1 (3 Credits)**
- AUTO061 - Automotive Principles (4 Credits).**
- AUTO062 - Shop Orientation (4 Credits)**
- AUTO140 - Steering and Suspension (4 Credits)**
- AUTO150 - Brake Systems (4 Credits)**
- AUTO160 - Electrical Systems (4 Credits)**

You can save time and money (up to 6 months and \$1400 in tuition and fees) through credit earned in high school toward your degree.

# Frequently Asked Questions

## ***How do I get accepted into the Ford AASET program?***

The Ford ASSET program consists of 2 parts: (See Plan of Study)

1. Maintenance and Light Repair – Open to any student accepted by CSCC
2. Ford Specific Technology - the student must meet the following requirements:
  - ⇒ Completion of all of the Maintenance and Light Repair technical courses with a “C” or better (See Plan of Study). Please keep in mind that dealers usually hire only “A” and “B” students.
  - ⇒ Technical GPA of at least 2.5.
  - ⇒ Completion of 5 out of the 10 required academic courses for the Associate’s Degree with a “C” or better.
  - ⇒ Excellent attendance in previous technical classes.
  - ⇒ Recommendations from the instructors of Maintenance and Light Repair courses.
  - ⇒ Be sponsored by a Ford, Lincoln, Mercury, or Mazda dealer.

## ***How long is the program?***

The program is a full two-year (eight quarters) program. A student may elect to attend part-time during the Maintenance and Light Repair section, but that will result in a longer program.

## ***When are the classes offered?***

The Maintenance and Light Repair classes are offered during the morning, afternoon or evening depending on the quarter schedule. Ford Specific classes are generally offered from 8:00am to 1:00pm, Monday through Friday.

## ***What books do students have to buy?***

Students need to buy those books required for all non-technical courses and the “AUTO” classes in the Maintenance and Light Repair section. Books for Ford classes are provided through the lab fees for the cost of printing.

## ***Will I need tools?***

Columbus State provides all tools and equipment for on-campus training. You will need tools during the co-op quarters. Many of the tool companies have substantial discounts for students through Columbus State. See Dave Hill-Lab Tech, for details. See required tool list.

## ***How will a graduate benefit from ASSET?***

The graduate:

- Has a full-time job as a technician at the sponsoring dealer
- Has great earning potential and career opportunities for future growth
- Has earned an Associate’s degree (Associate of Applied Science in Automotive Technology)
- Has had the opportunity to earn ASE Certifications and Ford STST Certifications

## ***Can I receive credit for Automotive Classes I took in High School?***

Columbus State has an Articulation Agreement with every NATEF-Certified high school automotive program in the State of Ohio. See Statewide Articulation Agreements.

## ***How is my progress reported to the dealership?***

Communication between all parties is very important. The instructor will issue progress reports to the student and dealership management after each on-campus quarter. Raises are usually based on this report. (See Recommended Pay During Co-op) The student is required to sign a “College Release Authorization” form that permits the instructor to share this information with dealership personnel.

## ***Can I continue my education after receiving an Associate’s Degree?***

Yes. CSCC has agreements with Franklin University and Ohio University.

## Ford ASSET Tool List

Each student is required to purchase the tools listed below as a requirement to participate in the Ford/ASSET Program. The tools are needed by the time you start working in the dealer. Tools needed for lab work at CSCC are provided, so it is not necessary to bring them to school.

### 1/4 inch Drive

- 1 – 1/4" Drive ratchet
- 1 – 1/4" Drive socket set - 3/16 – 3/8" and 4mm – 13mm recommended
- 1 – Extension 2"
- 1 – Extension 6"
- 1 – Drive handle

### 3/8 inch Drive

- 1 – 3/8" Drive ratchet – approximately 8" in length
- 1 – 3/8" Drive extension – 1" in length
- 1 – 3/8" Drive extension – 3" in length
- 1 – 3/8" Drive extension – 12" in length
- 1 – 3/8" Drive shallow and deep socket set – 1/4 - 7/8 6 pt. Recommended
- 2 – 3/8" Drive spark plug socket - 5/8" (flex recommended)
- 1 – 3/8" Universal
- 1 – 3/8" Drive shallow and deep metric sockets – 7mm - 19 mm
- 1 – Set Torx drive bits

### 1/2 inch Drive

- 1 – 1/2" Drive ratchet
- 1 – 1/2" Drive socket set 7/16 - 1" and 8mm – 21mm
- 1 – 1/2" Breaker bar 18"
- 1 – 1/2" Drive extension 3"
- 1 – 1/2" Drive extension 10"
- 1 – Adapter 1/4 – 3/8"
- 1 – Adapter 3/8 – 1/2"
- 1 – 1/2" Drive impact socket 3/4 & 13/16"
- 1 – 1/2" Drive impact socket 19mm

### Wrenches

- 1 – Set combination box – open end wrenches – 1/4 – 1"
- 1 – Set metric combination wrenches 9 – 19mm
- 1 – Set Allen wrenches – standard
- 1 – Set metric Allen wrenches
- 1 – Set metric flare wrenches
- 1 – Crescent wrench – 10"

### Pliers

- 1 – Pair slip joint
- 1 – Pair diagonal cutting

- 1 – Pair needle nose
- 1 – Pair adjustable joint (channel lock)
- 1 – Pair vise grip

#### Screwdrivers

- 5 – Straight blade – 1 each: stub, small, medium, medium large, large
- 3 – Phillips screwdrivers - #1, #2 and #3
- 1 – Set Torx drive screwdrivers

#### Miscellaneous Tools

- 1 – Tool chest, lockable with drawers
- 1 – Center punch
- 3 – Punches – 1/8, 3/16, 5/16"
- 2 – Chisels – 7/16, 5/8"
- 1 – Plastic tip hammer
- 1 – Set of Ball Peen hammers
- 1 – Rubber/Plastic mallet
- 1 – Pair safety goggles/glasses (ANSI Z-87 approved)
- 1 – Tire pressure gauge
- 1 – Valve core remover
- 1 – Hand file flat with handle 10"
- 1 – Gasket scraper
- 1 – Knife
- 1 – Pry bar set
- 1 – 12 volt test light
- 1 – Flashlight
- 1 – Set feeler gauges – flat, metric and standard graduations
- 1 – Oil filter wrenches
- 1 – Brake tools – return, hold down
- 1 – Brass drift
- 1 – Measuring tape
- 1 – Inspection mirror
- 1 – Pick-up magnet
- 1 – Spark plug gap adjusting tool – round wire type – .024" to .080"
- 1 – DVOM – 10 Megohm input impedance