

# BRAKES, SUSPENSION AND STEERING SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

This program is designed to prepare students for entry level employment in the area of Automotive Brakes, Suspension, and Steering. The program will provide the student the necessary skills and knowledge demanded of the modern automotive brakes, suspension, and steering systems. This program will prepare students for employment in the following technical and professional fields: automotive brakes, automotive suspension, steering wheel, and four wheel alignment technicians. In addition, the student will gain the necessary knowledge and preparation to pursue the State Brake License. Upon successful completion of this program, students will be prepared to take Automotive Service Excellence (ASE), Exams for Automotive Brake (Test A4), and Automotive Suspension (Test A5).

### PROGRAM LEARNING OUTCOMES

1. Identify the major part of an automotive brake system
2. Explain the operating principles of steering wheel system
3. Diagnose brake and steering column noises, looseness and binding concerns including tilt mechanisms
4. Diagnosis and repair: Disc and drum brakes units

### CERTIFICATE OF ACHIEVEMENT PROGRAM

The **Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

### FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

### CAREER OPPORTUNITIES

Jobs are available with auto repair shops and machine shops. Experienced technicians with leadership ability may advance to shop supervisors, service writers and service managers.

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>

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## CERTIFICATE PROGRAM

### AUTOMOTIVE BRAKES, SUSPENSION AND STEERING SPECIALIZATION

Twenty (20) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate.

AUT	070	Automotive Techniques and Applications	3.0
AUT	125	Automotive Brakes	4.0
AUT	130	Automotive Electronics I	3.0
AUT	155	Suspension & Wheel Alignment	4.0
AUT	180	Manual Transmissions and Power Trains	4.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0
<b>Total Certificate Units</b>			<b>20.0</b>