

# ENGINE REPAIR AND MACHINIST SPECIALIZATION

## DEGREES, CERTIFICATES AND AWARDS

Certificate of Achievement

### DESCRIPTION

The Engine Repair and Machinist Specialization Certificate of Achievement program is designed to prepare students for employment as Engine Repair and Machinist Specialists. The program will provide the necessary skills and knowledge through the use of modern tools and equipment to repair automotive engines and perform specialty work in machine shops. Students will learn to use honing and boring machines and motor balancing. Students will be working with high performance engines as well as using blueprint measurements. This program will prepare students for employment in the following fields: general mechanics, engine specialist, engine machinist specialist and high performance engine applications. In addition, the students will gain the necessary knowledge and preparation to pursue the State of California Emission Control License. Upon successful completions of this program, students will be prepared to take the Automotive Service Excellence (ASE) exams for Engine Repair (Test A1), and Machinist Specialist (M1, M2, and M3).

### PROGRAM LEARNING OUTCOMES

1. Demonstrate safe operation of hand tools and equipment.
2. Identify major machine shop equipment components, construction machines and high power units.
3. Diagnose major component failures and recommend repairs.
4. Perform typical major component repairs.

### 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.

### CAREER OPPORTUNITIES

Jobs are available with auto repair and machine shops as general mechanics, engine specialists, engine machinist specialists and high performance engine applications. 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/>



### 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/)

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## CERTIFICATE PROGRAM

### ENGINE REPAIR AND MACHINIST SPECIALIZATION

Twenty-two (22) 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	075	Basic Shop Skills	3.0
AUT	110	Engine Technology	4.0
AUT	120	Automotive Machine Shop	4.0
AUT	122	High Performance Engine Blueprinting I	4.0
WELD	100	Welding Technology	5.0
WE	201	Employment Readiness	1.0
WE	220	Internship	1.0
Total Certificate Units			22.0
<b>Total Maximum Units:</b>			<b>22.0</b>