

AUTO MECHANICS

Curriculum Guide for Academic Year 2011-2012

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Students planning to **transfer** to a four-year college or university should refer to the ASSIST web site at www.assist.org and **consult a counselor** before beginning a program of study. To meet with a counselor call 562-938-4561 for the LAC, or (562) 938-3920 for PCC. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to: Associate in Science (A.S.) Degree

The 200 series of courses are taught during the day and the 400 series in the evening. Students may take day or evening classes or a combination of the two to fulfill the Associate Degree requirements.

REQUIRED COURSES		UNITS	In Progress	Completed Grade
AMECH 231 OR	Engine Repair & Automatic Transmissions OR	9 OR		
AMECH 434 &	Engine Repair &	6 &		
AMECH 436	Automatic & Standard Transmission	6		
AMECH 232 OR	Brakes/Steering Systems OR	9 OR		
AMECH 430 &	Auto Wheel Alignment &	6 &		
AMECH 432	Automotive Brake Systems	6		
AMECH 233 OR	Auto Electrical & Fuel Systems OR	9 OR		
AMECH 442 &	Automotive Fuel Systems &	6 &		
AMECH 444	Automotive Electrical Systems	6		
AMECH 236 OR	Automotive Emission & Computer Control OR	9 OR		
AMECH 438 &	Auto Emission Controls &	6 &		
AMECH 440	Automotive Computer Systems	6		
AMECH 50A	Automotive Machine	3		
AMECH 424	Auto Air Conditioning	3		
TOTAL UNITS		42-54		

REQUIRED FOR THE COMMUNICATION & ANALYTICAL THINKING General Education component:

Math Requirement: Complete Math 120[†] or 130[†] or 130A[†] OR a more advanced level of Mathematics[#].

For graduation with an **Associate in Science (A.S.) Degree with a major in Auto Mechanics:**

- Units:** Complete a minimum of 60 units, distributed as follows:

Auto Mechanics Major:	42-54 units
General Education/A.S.	19 units
Electives/Other courses:	<u>0 units</u>
TOTAL:	60-72 units

Associate Degree requirements continue on following page.

Associate Degree Requirements continued from previous page.

1. **Scholarship:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) based on all accredited college work applied to the degree, no matter where completed. For this **field of concentration, complete each course above with a grade of "C" or better**, or "P" if course is graded on a P/NP basis.
2. **Residence for the Degree:** Complete at least 30 units of the required 60 in residence at LBCC, or complete in residence at LBCC at least 20 units within the last 30 units of work applied to the degree.
3. **Residence for Field of Concentration:** Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 21 units** of the required 41 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
4. **General Education and Proficiency Requirements:** Complete the required A.A./A.S. General Education and Proficiency requirements*, otherwise known as "Plan A". For Plan A requirements, refer to the general catalog or view it online at <http://osca.lbcc.edu>.
5. Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/>. Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

*The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".

Unless otherwise noted, "double-counting" is not allowed. That is, one course may not be used to fulfill both a field of concentration requirement and to fulfill a general education requirement.

**Program of study leading to:
Certificate of Achievement**

REQUIRED COURSES—Complete the 41-53 units of required courses as listed in the Associate Degree requirements box on the first page.

<u>REQUIRED COURSES</u>	TOTAL UNITS	41-53	In Progress	Completed

For graduation with a **Auto Mechanics Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade point average of 2.0** ("C" average).
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 21 units** of the required 41 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/>. Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

For the **Associate in Science degree**, the following course is recommended, **BUT NOT REQUIRED**.

RECOMMENDED for the Natural Sciences requirement (but not required):

† ENVRS 1 OR	Energy for the Future OR	3 OR		
† CHEM 2	Elementary Chemistry	4		

Program of study leading to:
Certificates of Accomplishment

Certificate: Quick Service Technician—Brake Inspection: 4103

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 803	Quick Service Technician—Brake Inspection	2		
TOTAL UNITS		2		

Certificate: Quick Service Technician—Lubrication Service: 4101

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 801	Quick Service Technician—Lubrication Service	2		
TOTAL UNITS		2		

Certificate: Quick Service Technician—Tire Service: 4105

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 802	Quick Service Technician—Tire Service	2		
TOTAL UNITS		2		

Certificate: Advanced Transportation Technology—Electric Vehicle: 4100

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 480	Hybrid, Fuel Cell & Electric Vehicles	3		
AMECH 481	Advanced Hybrid & Fuel Cell Electric Vehicles	3		
TOTAL UNITS		6		

Certificate: Advanced Transportation Technology—Light-Medium Duty Alternate Fuels: 4102

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 490	Introduction to Alternate Fuels	3.5		
AMECH 493	Alt. Fuels Conversion, Diagnosis & Repair	3.5		
TOTAL UNITS		7		

Certificate: Advanced Transportation Technology—Heavy Duty Alternate Fuels: 4104

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AMECH 491	Heavy Duty Alternative Fuels	3.5		
AMECH 492	HD Alt Fuel Engine Diagnosis & Repair	3.5		
TOTAL UNITS		7		

For graduation with a **Certificate of Accomplishment**:

1. Complete the above required units with a minimum grade of "C" in each course.
2. Fifty percent (50%) or more of the required units must be completed in residence at LBCC.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/>. Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

Career Opportunities

Students prepare for entry-level jobs in the automotive service industry.

Program Mission and Outcomes

To provide practical and theoretical knowledge and skills for students to prepare them for jobs in the automotive industry.

Outcomes:

- Troubleshoot and repair an electrical and fuel related malfunction according to industry standards.
- Troubleshoot and repair a steering and brake related malfunction according to industry standards.
- Troubleshoot and repair an engine and transmission related malfunction according to industry standards.
- Troubleshoot and repair an emission and on-board computer control related malfunction according to industry standards.

Legend

† This course has a prerequisite. Prerequisite courses must be complete with at least a "C" or "P" grade. Refer to the General Catalog (<http://www.lbcc.edu/cat/index.html>), the Schedule of Classes (<http://schedule.lbcc.edu/>), or the online Credit Course Outline (<http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/>) for specific prerequisite information.