

# AUTOMOTIVE TECHNOLOGY

Curriculum Guide for Academic Year 2019-2020

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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](http://www.assist.org) and **consult a counselor** before beginning a program of study. Please call (562) 938-4561 (LAC) or (562) 938-3920 (PCC) to schedule a counseling appointment. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to:			In	Completed
<b>Associate in Science (A.S.)</b>			Progress	Grade
Required Major Coursework:		Units		
AUTO 200	Introduction to Automotive Technology	3		
AUTO 211	Automotive Engine Repair	3		
AUTO 212	Automotive Automatic Transmission	3		
AUTO 213	Automotive Manual Transmission	3		
AUTO 214	Automotive Wheel Alignment	3		
AUTO 215	Automotive Brake Systems	3		
AUTO 216	Automotive Electric Systems	3		
AUTO 217	Automotive Air Conditioning	3		
AUTO 218	Automotive Fuel Systems	3		
AUTO 219	Automotive Light Diesel Engines	3		
<b>TOTAL UNITS</b>		<b>30</b>		

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

- Minimum Unit Requirements:** §Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree.
 

<b>Automotive Technology Major</b>	30 units
<b>General Education/A.S. §</b>	19.0 units
- 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.
- Residence for the Degree:** Complete at least 12 semester units of the required 60 semester units in residence at Long Beach City College in order for the college to grant an Associate of Arts and/or an Associate of Science Degree.
- Residence for the Field of Concentration:** Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15 units** of the required 68 must be **completed at Long**

**Beach City College.** Credit earned by exam, where applicable, may be included.

- 1. 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> . **Students must complete the courses outlined on the curriculum guide for the year in which they take their first nursing course. Students who withdraw from the program will be obligated by the guide of the year of their re-entry into the program.**
- 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".

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

**REQUIRED COURSES**—Complete the 30 units of required courses as listed in the Associate Degree requirements box on the first page.

<u>REQUIRED COURSES</u>	TOTAL UNITS	30	In Progress	Completed

For graduation with a **Automotive Technology Certificate of Achievement:**

- Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C"**, or better, or "P" if course is graded on a P/NP basis.
- Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15 units** of the required 30 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
- 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.

### Program of study leading to: Certificate of Achievement, Automotive Maintenance Service

Required Coursework:	Units	In Progress	Completed Grade
AUTO 200      Introduction to Automotive Technology	3		
AUTO 214      Automotive Wheel Alignment	3		
AUTO 215      Automotive Brake System	3		
AUTO 216      Automotive Electric Systems	3		
AUTO 217      Automotive Air Conditioning	3		
AUTO 218      Automotive Fuel System	3		
<b>TOTAL UNITS</b>	<b>18</b>		

For graduation with an **Certificate of Achievement in Automotive Maintenance Service:**

- Complete each of the **REQUIRED COURSES** with a **minimum grade of "C"** and a cumulative grade point average of 2.5.
- Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 9 units** of the required 18 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.

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 the actual semester deadline

Program of study leading to:  
**Certificate of Achievement, Automotive Engine and Transmission Service**

Required Coursework:		Units	In Progress	Completed Grade
ADMT 50	Advanced Manufacturing, Introduction	3		
AUTO 200	Introduction to Automotive Technology	3		
AUTO 201	Automotive Lubrication Service	1		
AUTO 211	Automotive Engine Repair	3		
AUTO 212	Automotive Automatic Transmission	3		
AUTO 213	Automotive Manual Transmission	3		
<b>TOTAL UNITS</b>		<b>16</b>		

For graduation with an **Certificate of Achievement in Engine and Transmission Service:**

1. Complete each of the **REQUIRED COURSES** with a **minimum grade of "C"** and a cumulative grade point average of 2.5.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 8 units** of the required 16 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.

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.

Program of study leading to:  
**Certificate of Achievement, Automotive Engine Performance Service**

Required Coursework:		Units	In Progress	Completed Grade
AUTO 200	Introduction to Automotive Technology	3		
AUTO 216	Automotive Electrical Systems	3		
AUTO 218	Automotive Fuel Systems	3		
AUTO 219	Automotive Light Diesel Technology	3		
<b>TOTAL UNITS</b>		<b>12</b>		

For graduation with an **Certificate of Achievement in Automotive Engine Performance Service:**

1. Complete each of the **REQUIRED COURSES** with a **minimum grade of "C"** and a cumulative grade point average of 2.5.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 6 units** of the required 12 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.

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.

**Program of study leading to:  
Certificates of Accomplishment**

**Certificate: Automotive Quick Service 4923**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
AUTO 200	Introduction to Automotive Technology	3		
AUTO 201	Automotive Lubrication Service	1		
AUTO 202	Automotive Tire Service	1		
AUTO 203	Automotive Brake Service	1		
<b>TOTAL UNITS</b>		<b>6</b>		

For graduation with a Certificate of Accomplishment:

1. Complete the above required courses with a minimum grade of "C", or "P" if course is graded on a P/NP basis.
2. Fifty percent (50%) or more of the required units must be completed in residence at LBCC.

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>.

**Program of study leading to:  
Certificates of Completion**

**Certificate: Automotive Quick Service 4924**

<u>REQUIRED COURSES</u>		HOURS	In Progress	Completed Grade
AUTO 600	Introduction to Automotive Technology	90		
AUTO 601	Automotive Lubrication Service1	36		
AUTO 602	Automotive Tire Service	36		
AUTO 603	Automotive Brake Service	36		
<b>TOTAL HOURS</b>		<b>198</b>		

For graduation with a Certificate of Completion:

1. Complete the above required courses with a minimum grade of "C", or "P" if course is graded on a P/NP basis.
2. Fifty percent (50%) or more of the required units must be completed in residence at LBCC.

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>.

**Career Opportunities**

This **Associate Degree or Certificate of Achievement** is a two-year program leading to the Associate in Science (A.S.) degree. This degree will help students succeed after transferring to a CSU or UC School Computer Science major program. Students wishing a bachelor's degree (transfer program) should meet with a counselor to discuss transferability of courses.

**Program Mission and Outcomes**

**Program Student Outcome:**

Automotive Technology (A.S. and Certificate of Achievement):

- Describe and demonstrate automotive shop practice safety and automotive systems' operation fundamentals in order to apply practical service and diagnostics during automotive servicing and repair.
- Evaluate and identify faults in automotive performance components and perform service to factory specifications.

Automotive Maintenance Service (Certificate of Achievement):

- Describe and demonstrate automotive shop practice safety and automotive systems' operation fundamentals in order to apply practical service and diagnostics during automotive servicing and repair.

- Evaluate and identify faults in automotive undercar and under hood components and perform service to factory specifications.

Automotive Engine and Transmission Service and Automotive Engine Performance Service (Certificate of Achievement)

- Describe and demonstrate automotive shop practice safety and automotive systems' operation fundamentals in order to apply practical service and diagnostics during automotive servicing and repair.
- Evaluate and identify faults in automotive engine and drivetrains components and perform service to factory specification.

Automotive Quick Service (Certificate of Accomplishment):

- Evaluate and prepare vehicles for quick service according to the manufacturer procedures.

Automotive Quick Service (Certificate of Completion)

- Demonstrate mastery of diagnostic tools and equipment used for automotive repair.
- Identify various automotive components.
- Demonstrate the technical and organizational employability skills required by the automotive industry.

## 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.