AMT - AUTOMOTIVE TECHNOLOGY

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FACULTY: Mark Lacasandile, David Meideros
Ivan Nitta, Bert Shimabukuro, Robert Silva

PROGRAM MISSION: The Automotive Technology program's mission is to serve the community as a learning-centered, open door program that provides technical training to meet the demands of the automotive industry and the needs of the individual. An open-exit option allows the students to identify their career objectives and participate in program exploration.

PROGRAM DESCRIPTION: The Automotive Technology (AMT) program at Honolulu CC is a comprehensive five-semester program master certified by the National Automotive Technology Education Foundation (NATEF) that prepares students for employment as automotive technicians. Students completing the program may earn a Certificate of Achievement after one year or an Associate in Applied Science degree upon program completion. The program has maintained its NATEF certification since 1993, undergoing a review every five years. It is certified in all eight ASE areas: engine repair, automotive transmission and transaxle, manual drive train and axles, suspension and steering, brakes, electrical/electronics systems, heating and air conditioning, and engine performance.

PROGRAM STUDENT LEARNING OUTCOMES (SLO): Upon successful completion of the AMT program, students will be able to:

• Gain employment in the automotive industry in any of the eight NATEF areas: engine repair, automatic transmission/transaxle, manual drive train and axles, suspension and steering, brakes, electrical/electronics systems, heating and air conditioning, and engine performance;
• Increase their marketability through learning time management and team work skills; and,
• Gain personal knowledge and experience in vehicle repair.

RECOMMENDED HIGH SCHOOL PREPARATION: Pre-Algebra, Electronics, Chemistry or Physics, Industrial Arts.

PROGRAM REQUIREMENTS:

<table>
<thead>
<tr>
<th>Program Prerequisites:</th>
<th>Certificate of Achievement Credits</th>
<th>Associate in Applied Science Degree Credits</th>
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</thead>
<tbody>
<tr>
<td>Placement in ENG 100; &quot;C&quot; or higher in MATH 50, OR Placement into MATH 150 or higher; Valid driver’s license</td>
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</table>

General Education Requirement – Quantitative or Logical Reasoning *

MATH 150 Technical College Mathematics 3

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMT 20</td>
<td>Introduction to Automotive Mechanics</td>
<td>2</td>
</tr>
<tr>
<td>AMT 53</td>
<td>Brakes</td>
<td>5</td>
</tr>
<tr>
<td>AMT 55</td>
<td>Suspension and Steering</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 100</td>
<td>Survey of Physics</td>
<td>4</td>
</tr>
<tr>
<td>or PHYS 104</td>
<td>Survey of Physics Lab</td>
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<td></td>
<td>Physics for Transportation Technology</td>
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</tbody>
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Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AMT 46</td>
<td>Powertrain and Manual Transmissions</td>
<td>5</td>
</tr>
<tr>
<td>AMT 50</td>
<td>Automatic Transmissions/Transaxles</td>
<td>7</td>
</tr>
<tr>
<td>WELD 19</td>
<td>Welding for Trades and Industry</td>
<td>3</td>
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<tr>
<td></td>
<td>General Education Requirement – Social Science *</td>
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</tbody>
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### Third Semester

- **AMT 30** Engines 8
- **AMT 40** Electrical Systems I 4
- General Education Requirement ENG 100* 3

#### Minimum Credits Required 15

### Fourth Semester

- **AMT 42** Electrical Systems II 8
- **AMT 43** Air Conditioning 4
- General Education Requirement * 3

#### Minimum Credits Required 15

### Fifth Semester

- **AMT 67** Engine Performance 12
- **AMT 93V** Cooperative Education 1-4

#### Minimum Credits Required 13-16

#### Minimum Credits Required 24 80-83

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**Note:** Students must meet the minimum proficiency standards in communication and computation established by Honolulu CC to qualify for the AAS degree.

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**Program Goals:** The competencies that students are expected to achieve in the program are based on the tasks described by NATEF. Students who successfully complete the program will be prepared with the skills and competencies necessary for a successful career in the automotive industry with emphasis on marketability by receiving training in all eight areas described by NATEF: engine repair, automatic transmission/transaxle, manual drive train and axles, suspension and steering, brakes, electrical/electronics systems, heating and air conditioning, and engine performance. The program is also structured for individuals exploring automotive as a potential career path, and allows individuals the opportunity to acquire knowledge in theory of operation and experience in vehicle repair for personal gain.

**Physical Requirements:** The physical requirements of the program include the eye-hand coordination necessary to make precision repairs and to avoid unnecessary material losses and personal injury.

**Cost of Textbooks/Supplies:** The cost of tools and supplies for the five-semester program is approximately $3500.

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**Advisory Committee:**

- Arnell Aurelio, Toyota City
- Bert Azama, Kaimuki High School, Retired
- Keith George, Porsche of Honolulu
- Gary Gibo, Honolulu Ford
- Rick Hernandez, Snap-On Tools
- Mark Isono, Larry’s Auto Parts
- Clifford Johnson, Windward Dodge
- Roy Ozaki, Roy’s Automotive Center
- Francis Parsons, Kamehameha School, Retired
- Jerry Ranion, Waipahu High School, Retired
- Jerry Romano, Windward Dodge
- Neal Tanaka, Toyota Hawai’i

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*Driver’s license must remain valid throughout the time the student is in the program.*

*General Education Requirements for the AAS degree are listed under DEGREES AND CERTIFICATES.*