

# TECHNOLOGY

## Automotive Service - Even

### Four Year—B.S. Degree

**GENERAL AREAS OF SERVICE/NATURE OF WORK:** The ability to diagnose the source of the problem quickly and accurately, one of the mechanic's most valuable skills, requires good reasoning ability and a thorough knowledge of automobiles. During routine service, mechanics inspect, lubricate, and adjust engines and other components, repairing parts before they cause breakdowns. They usually follow a checklist to be sure they examine all important parts, such as belts, hoses, steering systems, spark plugs, brake and fuel systems, wheel bearings, and other potentially troublesome items.

An automotive technician generally repairs and tests cars for an automobile manufacturer, a car dealership, or a bus line, or in a garage or service station. With proper credentials and certification, automotive technicians often become teachers of vocational courses or open their own service garages.

**PROFESSIONAL TRAINING:** Automotive technology is rapidly increasing in sophistication, and most training authorities strongly recommend that persons seeking automotive mechanic jobs complete a formal training program after graduating from high school. However, some automotive mechanics still learn the trade solely by assisting and working with experienced mechanics.

**JOB OUTLOOK:** Job opportunities in automotive mechanics are expected to be plentiful for persons who complete automotive training programs in high school, in vocational and technical schools, or in community colleges. Employment of automotive mechanics is expected to increase about as fast as the average for all occupations through the year 2014.

**EARNINGS:** According to the National Automobile Dealers Association, the national average salary for an auto technician in 2002 was \$41,588. The highest-paid technicians earned \$120,000 in 2002.

**SOURCES OF ADDITIONAL INFORMATION:**

New United Motor Manufacturing, Inc.  
45500 Fremont Blvd.  
Fremont CA 94538  
(570)498-5500  
[www.nummi.com](http://www.nummi.com)

Automotive Service Council of California  
(916)924-9054  
[www.ascca.com](http://www.ascca.com)

National Automotive Technicians Education Foundation  
101 Blue Seal Dr. S.E., Suite 101  
Leesberg, VA 20175  
[www.natef.org](http://www.natef.org)

\*US bureau of Labor Statistics  
[www.bls.gov/oco](http://www.bls.gov/oco)

**Technology Department Chair:** Linda Nelson  
**Academic Adviser:** Rob Holm

**ALL SENIORS MUST TAKE A COMPREHENSIVE EXAM IN THEIR MAJOR FIELD BEFORE GRADUATION—these are exit exams.**

( ) - Parentheses indicate choice of courses.

	AUT Cr	WIN Cr	SPR Cr
<b>FRESHMAN YEAR</b>			
Internal Combustion Engine Theory & Lab (AUTO 134, 135)	4	-	-
Manual Drive Trains and Axles Lab (AUTO 145, 146)	-	4	-
Electrical Systems & Lab (AUTO 156, 157)	-	-	4
Fundamentals of CAD (DRFT 120)	2	-	-
Technical Drafting & Design (DRFT 121)	-	2	-
Fundamentals of Electronics (ELCT 241)	4	-	-
College Writing (ENGL 121, 122)	3	3	-
Business Electives	-	4	4
General Studies P.E. Activity	-	-	1
General Studies Religion (RELB)	2	-	4
Technical Electives	-	-	2
General Electives	<u>  </u>	<u>  </u>	<u>  </u>
	15	15	20
<b>SOPHOMORE YEAR</b>			
Principles of Accounting (ACCT 201)	4	-	-
Engine Performance & Lab (AUTO 314, 315)	4	-	-
Brake Systems and Traction Control (AUTO 337, 338)	-	-	4
Automatic Transmissions and Transaxles & Lab (AUTO 357, 358)	-	4	-
Software Application: Cptr. Literacy, MS Word, MS Excel (INFO 150A,B,C)	1	1	1
Intro to Materials & Processes (TECH 235)	-	2	-
Intro to Plastics (TECH 236)	-	-	2
Conceptual Physics (PHYS 201/204, 202/205)	-	4	4
Solid State Devices (ELCT 252)	-	4	-
Technical Electives	3	2	-
Research Writing (ENGL 223)	3	-	-
General Electives	<u>  </u>	<u>  </u>	<u>  </u>
	15	17	12
<b>JUNIOR YEAR</b>			
Practicum in Automotive (AUTO 280)	-	1	1
Suspension and Steering Systems & Lab (AUTO 335, 336)	-	4	-
Climate Control Systems & Lab (AUTO 355, 356)	-	-	4
Diesel Engines (AUTO 365)	-	3	-
Computer Applications in Technology (TECH 335)	3	-	-
Occupational Health & Safety (TECH 364)	-	2	-
Technical Space Utilization (TECH 380)	3	-	-
Alternative Fuels (AUTO 473)	-	-	3
General Studies P.E. Elective	-	1	-
General Studies Mathematics	-	4	-
General Studies Language Arts	4	-	-
General Studies Humanities	-	-	4
General Studies Religion (6 Upper Division)	2	4	-
General Studies/ Electives	<u>  </u>	<u>  </u>	<u>  </u>
	15	19	17
<b>SENIOR YEAR</b>			
Advanced Engine Performance (AUTO 414)	-	3	-
Body Electronics and Computer Systems (AUTO 466)	3	-	-
General Studies (Upper Division)	-	-	3
Advanced Practicum in Automotive (AUTO 480)	-	1	1
Management of Small Business (MGMT 275)	-	(4)	-
<b>OR</b>			
Principles of Management (MGMT 371)	(4)	-	-
Hydraulics and Pneumatics (TECH 326)	-	3	-
Senior Project (TECH 499)	-	1	-
Technical Elective	-	-	4
General Studies History/Social Science	4	4	4
General Studies Humanities/Fine Arts	4	-	4
General Electives (4 Upper Division)	<u>0-4</u>	<u>0-4</u>	<u>  </u>
	15	16	16