

# AUTOMOTIVE: CHASSIS AND DRIVETRAIN SPECIALIST, ASSOCIATE IN ARTS DEGREE

Banner Code: 2\_AA\_ATCD

Control Number: 11432

Financial Aid Eligible

Students are given two options in order to prepare for a specialized field of study within the Automotive Technology program, the Chassis and Drivetrain option and the Engine Performance and Emissions option. New students entering either option are encouraged to consider taking preparation classes in automotive theory and computer skills before enrolling in the regular required courses for the certificate. This is intended to ensure successful performance in the required courses unless students have received prior training or education related to the recommended courses that would fulfill preparation expectations. These courses may normally be available in sequential patterns that would allow completion of the certificates within a two-year time frame.

Students will be responsible for providing their own textbooks, personal safety equipment, protective clothing, a basic hand tool set, and project related materials. The cost of these items will vary according to the place of purchase.

## Program Level Learning Outcomes

Upon completion of this program, students will be able to:

1. Measure and convert assigned unit pieces to interpret the appropriate SAE and metric unit. (Celsius to Fahrenheit and inches to millimeters).
2. Identify a fault (ac no air) and will perform a (repair) to then evaluate a successful (fix) in a lab situation.
3. Analyze and diagnose automotive engines and related components for correct system operation.
4. Demonstrate mastery of diagnostic tools and equipment used for automotive repair.

Review Graduation Requirements (<https://catalog.cccd.edu/golden-west/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/golden-west/general-education/>).

Course	Title	Units
<b>Required Courses</b>		
AUTO G120	Electrical/Electronic Systems: Introductory	5
AUTO G140	Automotive Chassis: Brakes	5
AUTO G150	Manual Drive Trains & Axles	4
AUTO G141	Automotive Chassis: Steering & Suspension	4.5
AUTO G151	Automatic Transmissions and Transaxles	4
<b>Major Total</b>		<b>22.5</b>
<b>GE Pattern (Local, CSU GE-Breadth, or IGETC)</b>		<b>18-39</b>
<b>Total Units</b>		<b>60</b>

## Recommended Program Sequence

These sequences are general course maps for students to finish all major and general education requirements for two-year completion

of degrees, completion of short-term certificates, and/or fulfillment of transfer requirements. However, this may not be an appropriate path for all students. The two-year sequence is based on English and Math placement and meeting other course prerequisites. **Students are advised to meet with a GWC Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

### Year 1:

Course	Title	Units
<b>Semester 1</b>		
AUTO G120	Electrical/Electronic Systems: Introductory	5
AUTO G140	Automotive Chassis: Brakes	5
ENGL G100	Freshman Composition <sup>^</sup>	4
Area E: Lifelong Understanding and Self-Development or Area A: English Language, Area B: Natural Sciences, Area C: Arts & Humanities, Area D: Social & Behavioral Sciences		3
<b>Units</b>		<b>17</b>

Course	Title	Units
<b>Semester 2</b>		
AUTO G151	Automatic Transmissions and Transaxles	4
AUTO G141	Automotive Chassis: Steering & Suspension	4.5
CS G130	Survey Of Computer Science/Information Technology (recommended)	4
Area D: Social & Behavioral Sciences course		3
<b>Units</b>		<b>15.5</b>

### Year 2:

Course	Title	Units
<b>Semester 3</b>		
AUTO G150	Manual Drive Trains & Axles	4
Area C: Arts & Humanities course		3
Elective coursework for a total of 3 units		3
<i>Select one of the following or satisfy Math competency (completion of Algebra 2 in High School with a "C" or better):</i>		
MATH G030	Intermediate Algebra	4
MATH G040	Accelerated Elementary and Intermediate Algebra	5
MATH G080	Pre-Statistics	5
If Math competency is satisfied, take Elective coursework for a total of 3 units		3
<b>Units</b>		<b>13-15</b>

Course	Title	Units
<b>Semester 4</b>		
Area B: Natural Sciences course		3
Cultural Diversity requirement <sup>#</sup>		3
Elective coursework to reach a minimum of 60 units		6.5-8.5
<b>Units</b>		<b>12.5-14.5</b>
<b>Total minimum units required</b>		<b>60</b>

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Cultural Diversity requirement (<https://catalog.cccd.edu/golden-west/general-education/associate-degree/>) list of approved courses

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Program sequence may not be recommended for students who self-place into ENGL G100S. Students should see a Counselor for appropriate advisement.