

## Automotive Technology (Maintenance and Light Repair) Certificate

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The Johnson County Community College Automotive Technology program is in alignment with the National Center for Education Statistics (NCES) CIP code 47.0604: Automobile/Automotive Mechanics Technology/Technician. This program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. This program includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

Students in the Automotive Technology (Maintenance and Light Repair) Certificate will learn to perform basic repairs and maintenance on automotive systems such as electrical systems, brakes, alignments, suspension, steering, engine repair, and an introduction to engine performance. This certificate also provides credit towards completing the comprehensive Automotive Technology (Automobile Service Technician) Certificate (<https://catalog.jccc.edu/archives/2025-26/degreecertificates/automotivetechology/automotive-technology-repair-certificate/>) and/or the Automotive Technology Associate of Applied Science (<https://catalog.jccc.edu/archives/2025-26/degreecertificates/automotivetechology/automotive-tech-aas/>) degree.

(Major Code 6740; CIP Code 47.0604)

Automotive Technology Program web page (<http://www.jccc.edu/academics/credit/automotive-technology/>)

### Program Learning Outcomes

Johnson County Community College (JCCC) is committed to offering high-quality affordable programs that focus on developing knowledge and skills conducive to life-long learning. Both the General Education Student Learning Outcomes (<https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/learning-outcomes.html>) and Institutional Learning Outcomes (<https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/institutional-learning-outcomes.html>) convey JCCC's approach to programmatic outcomes. Additionally, students who successfully complete the Automotive Technology program from JCCC will be able to:

- Apply safety procedures and use personal protective equipment in an automotive shop environment.
- Diagnose and repair brake systems, including hydraulic systems, drum brakes, and disc brakes.
- Perform wheel alignments and steering/suspension system repairs, including diagnosing and correcting alignment issues and replacing suspension components.
- Diagnose and repair basic electrical systems, including starting, charging, and lighting systems.
- Perform basic engine repairs, including inspecting, diagnosing, and replacing engine components.
- Demonstrate effective workplace communication skills, including verbal and written communication, teamwork, and problem-solving.

### Certificate Requirements

#### First Semester

| Code               | Title                                | Hours     |
|--------------------|--------------------------------------|-----------|
| AUTO 114           | Introduction to Automotive Practices | 4         |
| AUTO 129           | Brakes I*                            | 3         |
| AUTO 131           | Brakes II*                           | 1         |
| AUTO 156           | Electrical I*                        | 3         |
| COMS 155           | Workplace Skills                     | 1         |
| <b>Total Hours</b> |                                      | <b>12</b> |

#### Second Semester

| Code     | Title                      | Hours |
|----------|----------------------------|-------|
| AUTO 150 | Steering and Suspension I* | 3     |
| AUTO 151 | Alignment Practicum*       | 1     |
| AUTO 155 | Automotive Engine Repair*  | 3     |
| AUTO 161 | Engine Performance I*      | 3     |



|                    |                |           |
|--------------------|----------------|-----------|
| AUTO 162           | Electrical II* | 3         |
| <b>Total Hours</b> |                | <b>13</b> |

**Total Program Hours: 25**

\* This course has registration requirements.