**Automotive Fundamentals**

**Business Division**

The Automotive Fundamentals program seeks to meet the needs of individuals interested in a basic exposure to and/or an exploratory opportunity in the automotive technology field.

Purpose:

* To provide an understanding of the basic operating principles of an automobile.
* To provide in-depth theory of brake, steering and suspension systems.
* Target Population:
* Individuals interested in a basic exposure to automotive systems.
* Individuals interested in an exploratory opportunity in automotive technology.

|  |  |  |
| --- | --- | --- |
| **Course No.** | **Title** | **Credits** |
| ATP\*H100 | Integrated Automotive Systems | 3 |
| ATP\*H130 | Brakes | 3 |
| ATP\*H150 | Steering and Suspension | 3 |
| Elective | Automotive | 2-3 |
| Elective | Mathematics | 3 |
|  | Total Credit Hours | 14-15 |

To ensure appropriate placement, placement test results and course prerequisites should be reviewed with the Program Coordinator and/or advisor.

Program Outcomes

Upon successful completion of all program requirements, graduates will be able to: Program should be able to:

1. Perform mathematics related to the occupation, including but not limited to: algebraic expressions, arithmetic, decimals and graphs.
2. Relate knowledge of theory and safety to accomplish certain tasks related to the occupation.
3. Identify and use appropriate tools, testing and measurement equipment to accomplish certain tasks related to the occupation.
4. Use current reference and training materials from accepted industry publications and standards to accomplish certain tasks related to the occupation.
5. Relate knowledge of general engine diagnosis and repair, including but not limited to the engine's: cylinder heads, valve train, block, lubrication, and cooling system.
6. Relate knowledge of suspension and steering systems (including wheel and tire), diagnosis, service, adjustments, alignment and repair.
7. Relate knowledge of general disc and/or drum brake system, hydraulics, power assist, and ABS (antilock brakes), maintenance, adjustment, diagnosis, and repair.