

2023-2024 TTC Catalog - Automotive Technology (AUT)

AUT 001 - AUT 001

Lec: 0 Lab: 0 Credit: *

Indicates credit given for automotive course work transferred from another college for which there is no equivalent course at TTC. *Hours vary depending on external course.

Division: Manufacturing and Maintenance

AUT 103 - Engine Reconditioning

Lec: 2.0 Lab: 6.0 Credit: 4.0

Course Offered

Spring

This course is a review of engine fundamentals and overhaul procedures, including engine block preparation, cleaning, specifications, measurements with micrometers, assembly and operation.

Prerequisite

AUT 131

or

departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 111 - Brakes

Lec: 1.5 Lab: 4.5 Credit: 3.0

Course Offered

Fall

This course is a study of the fundamentals of hydraulics and brake components and their application to automotive brake systems.

Prerequisite

AUT 159

and

AUT 131

or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 116 - Manual Transmission and Axle

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Fall

Summer

This course is an advanced study of manual transmissions and transaxles, including proper overhaul procedures for axles and manual transmissions and transaxles.

Prerequisite

AUT 131

or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 122 - Suspension and Alignment

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Spring

This course is a continued study of suspension and steering systems including nonadjustable and adjustable wheel alignment angles. The student becomes familiar with the use and application of balancing and alignment equipment.

Prerequisite

AUT 131

or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 131 - Electrical Systems

Lec: 1.5 **Lab:** 4.5 **Credit:** 3.0

Course Offered

Fall

Spring

This course is a study of the individual systems and components that form the entire automobile electrical system. The course includes starting and charging systems, ignition, engine, chassis and accessory systems, as well as instruction in the proper use of electrical schematics.

Prerequisite

AUT 133

and

AUT 159

or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 133 - Electrical Fundamentals

Lec: 1.5 **Lab:** 4.5 **Credit:** 3.0

Course Offered

Fall

This course is a study of the theories of electricity including magnetism, series and parallel circuits, Ohm's Law, and an introduction to the use of various types of electrical test equipment.

Prerequisite

RWR 100

and

MAT 033

or appropriate test scores

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 149 - Ignition and Fuel Systems

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Spring
Summer

This course is a study of ignition system operation and how it relates to fuel systems for proper engine performance.

Prerequisite

AUT 131
or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 152 - Automatic Transmission

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Spring
Summer

This course is a basic study of power flow and hydraulics, including the study of the torque converter operation.

Prerequisite

AUT 116
or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 159 - Tools, Equipment and Reference Manuals

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall

This course is a study of the proper selection, care, and use of tools and equipment, including proper use of service and reference manuals and guides.

Prerequisite

MAT 033
and
RWR 100

Grade Type: Letter Grade

Division: Manufacturing and Maintenance

AUT 241 - Automotive Air Conditioning

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Spring

Summer

This course is a study in the principles of refrigeration, operation and testing procedures to determine the cause of malfunction, and servicing or repairing by approved methods. Emphasis is on special tools, equipment and safety procedures.

Prerequisite

AUT 131

or departmental approval

Grade Type: Letter Grade

Division: Manufacturing and Maintenance
