

# 2019-2020 TTC Catalog - Automotive Technology (AUT)

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## **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

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## **AUT 103 - Engine Reconditioning**

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

### **Course Offered**

Fall  
Spring  
Summer

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

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## **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

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**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

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**AUT 122 - Suspension and Alignment**

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

**Course Offered**

Spring

Summer

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

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## **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

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## **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 032  
or appropriate test scores

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AUT 149 - Ignition and Fuel Systems**

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

### **Course Offered**

Spring

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

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## **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

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## **AUT 159 - Tools, Equipment and Reference Manuals**

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

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 032

and

RWR 100

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **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

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