

# AUTOMOTIVE TECHNOLOGY, B.TECH.

## Major Code: 1611

The Bachelor of Technology Degree in Automotive Technology at SUNY Morrisville will prepare students for entry into the automotive industry at the technical or supervisory level where technical knowledge of all aspects of the automotive industry is necessary. This course of study goes beyond the technical automotive education provided by a traditional Associate in Applied Science Degree, adding a business management emphasis at the baccalaureate level.

Students will take courses in traditional automotive areas such as chassis analysis as well as the latest technologies in the automotive field. Students in the degree program will be able to take advantage of SUNY Morrisville's state of the art Automotive Technology Building. The facility provides a technologically sophisticated environment with nine state-of-the-art laboratories including chassis, electrical, emissions, engines, Ford ASSET (Automotive Student Service Educational Training), fuel diagnostics/drivability and performance, R and R (remove and replace), and transmissions. There is a showroom, three classrooms and a chassis dynamometer room where horsepower, torque, emissions and engine data measurements can be taken from a vehicle and transmitted electronically into a classroom. The bays in each laboratory have wireless and hard-wired access into the college's computer network and computerized manual systems gives students quick access to automotive related information. Much like a modern dealership, the building provides students with a professional working environment.

The Automotive Technology B.Tech. program prepares students for technical or supervisory level positions in the automotive industry.

## Graduation Requirements

All BT and BBA programs require a minimum of 120 credit hours including 30 credit hours from SUNY general education courses with courses in seven of the ten SUNY general education categories. SUNY requires that all Bachelor degree programs must have at least 45 credit hours of upper-division courses with 24 credit hours of upper-division courses in the major. To fulfill these requirements along with the required courses for this program, 123 credits are required for this program. Students must maintain a GPA of 2.0 or greater in all Automotive classes. An overall GPA of 2.0 or higher is required for graduation.

Enrollment in either the Auto Technology AAS or SUNY Morrisville's Ford ASSET AAS Program are both pathways that may be used towards the completion of the BT degree.

## Program Requirement

Students are required to have a tool set and roll around tool box.

## Student Learning Outcomes

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

- Communicate effectively both in writing and in presentations in areas of the Automotive Industry
- Evaluate strategies for solving automotive business related problems
- Perform diagnosis, service and repair of base automotive systems
- Diagnose and repair advanced technology applications

- Demonstrate computer competency for accessing data and documenting automotive repair records
- Identify an automotive related research problem, develop research questions, collect and analyze data and draw conclusions

## Curriculum Requirements

A minimum of 123 credits is required for degree completion.

Code	Title	Credits
<b>Requirements</b>		
AUTO 102	Metals	3
AUTO 103	Internal Combustion Engines I	3
AUTO 104	Basic Auto Electrical Systems	3
AUTO 109	Chassis Analysis I	4
AUTO 110	Summer Work Experience	3
AUTO 138	Automobile Industry Awareness	1
AUTO 155	Intermediate Auto Electricity	3
AUTO 171	Automotive Drivetrains	3
AUTO 202	Autobody Fundamentals	3
AUTO 204	Automotive Electronic Systems	3
AUTO 205	Electronic Fuel Systems	3
AUTO 209	Chassis Analysis II	4
AUTO 255	Driveability & Performance Prob	5
or AUTO 259	Non-Structural Repair Refinish	
AUTO 261	Auto Air Condition & Heat	3
AUTO 309	Advanced Automotive Chassis	4
AUTO 355	Advanced Automotive Diagnostic	3
AUTO 359	Collision Business & Mgt	3
AUTO 360	Auto Shop Mgt & Supervision	3
AUTO 371	Adv Powertrain Management	3
AUTO 380	Auto Parts Management	3
AUTO 400	Automotive Fleet Management	3
AUTO 420	Auto Industry Internship Orien	1
AUTO 421	Automotive Industry Internship	12
BSAD 112	Marketing	3
BSAD 116	Business Organization & Mgmt	3
BSAD 300	Management Communications	3
BSAD 400	Production & Operation Mgt	3
BSAD 310	Human Resource Management	2-3
or RENG 306	Alternative Fuel Vehicles	
SUNY General Education Communication Written & Oral as advised		3-6
SUNY General Education Math as advised		3
SUNY General Education Natural Science as advised		3-4
SUNY General Education Diversity, Equity, Inclusion & Social Justice as advised		3
PSYC 101	Introduction to Psychology	3
PSYC 304	Industrial/Org Psychology	3
<b>Additional SUNY General Education</b>		
Select elective credits in two of the following categories:		6
The Arts		
Humanities		
US History & Civic Engagement		
World History & Global Awareness		

World Languages	
SUNY General Education electives as advised	3-6
<b>Total Credits</b>	<b>120-128</b>

## Suggested Course Sequence

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
AUTO 102 or AUTO 103	Metals or Internal Combustion Engines I	3
AUTO 104	Basic Auto Electrical Systems	3
AUTO 109	Chassis Analysis I (fall only)	4
AUTO 138	Automobile Industry Awareness	1
SUNY General Education Math as advised		3
<b>Credits</b>		<b>14</b>
<b>Spring</b>		
AUTO 102 or AUTO 103	Metals or Internal Combustion Engines I	3
AUTO 155	Intermediate Auto Electricity (spring only)	3
AUTO 209	Chassis Analysis II (spring only)	4
SUNY General Education Natural Science as advised		3
SUNY General Education Communication as advised		3
<b>Credits</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
AUTO 110	Summer Work Experience	3
AUTO 202	Autobody Fundamentals (fall only)	3
AUTO 204	Automotive Electronic Systems (fall only)	3
AUTO 205	Electronic Fuel Systems (fall only)	3
PSYC 101	Introduction to Psychology	3
SUNY General Education Diversity, Equity, Inclusion & Social Justice as advised		3
<b>Credits</b>		<b>18</b>
<b>Spring</b>		
AUTO 171	Automotive Drivetrains (spring only)	3
AUTO 255 or AUTO 259	Driveability & Performance Prob (spring only) or Non-Structural Repair Refinish	5
AUTO 261	Auto Air Condition & Heat	3
SUNY General Education courses as advised		6
<b>Credits</b>		<b>17</b>
<b>Year 3</b>		
<b>Fall</b>		
AUTO 309	Advanced Automotive Chassis (fall only)	4
AUTO 355	Advanced Automotive Diagnostic	3
BSAD 112	Marketing	3
BSAD 116	Business Organization & Mgmt	3
SUNY General Education Communication or Elective as Advised		3
<b>Credits</b>		<b>16</b>
<b>Spring</b>		
AUTO 359	Collision Business & Mgt	3
AUTO 360	Auto Shop Mgt & Supervision	3
RENG 306 or BSAD 310	Alternative Fuel Vehicles (spring only) or Human Resource Management	2-3
BSAD 300	Management Communications	3
PSYC 304	Industrial/Org Psychology	3
<b>Credits</b>		<b>14-15</b>
<b>Year 4</b>		
<b>Fall</b>		
AUTO 371	Adv Powertrain Management (fall only)	3
AUTO 380	Auto Parts Management	3
AUTO 400	Automotive Fleet Management	3
AUTO 420	Auto Industry Internship Orien	1

BSAD 400	Production & Operation Mgt	3
SUNY General Education courses as advised		3
<b>Credits</b>		<b>16</b>
<b>Spring</b>		
AUTO 421	Automotive Industry Internship	12
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>123-124</b>