



Pittsburg State University

Department of **AUTOMOTIVE TECHNOLOGY**

Degree: **Bachelor of Science in Technology (0-4 degree)**

Major: **Automotive Technology**

Emphasis:

As of Fall 2020

Support Courses (9 hrs)

ECON 200: Principles of Microeconomics	3
MATH 143: Elementary Statistics	3
ENGL 301: Technical/Professional Writing	3

Automotive Technical Core (40 hrs)

AT 100: Orientation to the Transportation Industry	1
AT 115: Mobile Electrical/Electronics	3
AT 116: Mobile Electrical/Electronics Laboratory	3
AT 210: Brake Systems	3
AT 211: Steering, Alignment, and Suspension	3
AT 213: Engine Systems	3
AT 314: Manual Transmissions	3
AT 399: Professional Development in the Transportation Industry	2
AT 410: Emerging Trends in the Transportation Industry	1
AT 414: Automatic Transmissions	3
AT 415: Mobile Climate Systems	3
AT 515: Engine Performance	3
or AT 621: Advanced Diesel Electronics and Diesel Engine Laboratory	3
AT 519: Mobile Fuels, Lubricants and Alternate Fuels	3
AT 580: Dealership Service Operations	3
AT 620: Hybrid, Electric, and Fuel Cell Vehicles	3
AT 699: Senior Seminar	1

Approved Electives (7 hrs selected from the following)

AT 101: Automotive Maintenance for All Majors	3
AT 300: Automotive Internship	3-6
AT 301: Fundamentals of Collision Technology	3
AT 331: Fall SAE Baja Team	1
AT 332: Spring SAE Baja Team	2
AT 335: Industry Tours in the Transportation Industry	1-2
AT 400: Automotive Internship	3-6
AT 403: Current Topics in Automotive Technology	1-3
AT 405: Laboratory Teaching Internship	3
AT 462: Structural and Non-Structural Analysis	3
AT 562: Damage Analysis, Estimating, and Insurance Appraisal	3
AT 613: Service Techniques Laboratory	3
AT 635: Advanced Engine Performance	3
AT 650: Dynamometer and Performance Testing	3
AT 662: Automotive Finishing and Refinishing	3
AT 682: Dealership Sales Operations	3
AT 687: Corporate Sales, Service and Parts Management	3
EET 141: Introductory Electronics	3
EST 393: Introduction to Industrial Safety	3
MFGET 162: Welding Processes and Procedures	3
TM 606: Industrial Supervision	3

Option One: Advanced Vehicle Systems (Select 21 hrs)

EET 100: Prolog to Electronics	2
EET 141: Introductory Electronics	3
EET 144: D.C. Circuit Analysis	3
AT 301 Fundamentals of Collision Technology	3
EET 340 Introduction to Industrial Automation	3
AT 418 Failure Analysis	3
AT 613 Service Techniques Laboratory	3
AT 635 Advanced Engine Performance	3
AT 650 Dynamometer and Performance Testing	3

Option Two: Dealership and Corporate Transportation Mgmt (21 hrs)

ACCTG 202: Managerial Accounting	3
AT 301: Fundamentals of Collision Technology	3
AT 682: Dealership Sales Operations	3
AT 687: Corporate Sales, Service, and Parts Management	3
MGT 330: Management and Organizational Behavior	3
MGT 430: Legal and Social Environment of Business	3
MKTG 330: Principles of Marketing	3
ACCTG 202 can be substituted through approval of an accounting elective.	

Option three: Diesel and Heavy Equipment (21 hrs)

MFGET 162: Welding Processes and Procedures	3
AT 340: Diesel Engine Fundamentals	3
AT 416: Fluid Power	3
AT 418: Failure Analysis	3
AT 630: On Highway Systems	3
AT 641: Construction Equipment Systems	3
OR AT 642: Agricultural Equipment and Powertrains	3
AT 654: Advanced Hydraulic Systems and Off Highway Systems Lab	3

Option Four: Collision Repair and Insurance Management (21 hrs)

MFGET 162: Welding Processes and Procedures	3
AT 301: Fundamentals of Collision Technology	3
AT 462: Structural and Non-Structural Analysis	3
AT 562: Damage Analysis, Estimating, and Insurance Appraisal	3
AT 662: Automotive Finishing and Refinishing	3
AT 682: Dealership Sales Operations	3
AT 687: Corporate Sales, Service and Parts Management	3

Option Five: Automotive Technical

Complete 21 hours (Select 21 hrs)

AT 301: Fundamentals of Collision Technology	3
AT 340: Diesel Engine Fundamentals	3
AT 416: Fluid Power	3
AT 418: Failure Analysis	3
AT 613: Service Techniques Laboratory	3
AT 635: Advanced Engine Performance	3
AT 650: Dynamometer and Performance Testing	3
EET 141: Introductory Electronics	3

Option Six: Automotive Mechanical Design (Select 21 hrs)

MECET 121: Engineering Graphics I	3
MECET 220: Statics	3
MECET 226: Computer Aided Design	3
MECET 420: Kinematics	2
MECET 423: Mechanics of Materials	3
MECET 424: Mechanics of Materials Laboratory	1
MECET 428: Thermodynamics	3
MECET 523: Mechanical Design I	3

MATH 150 Calculus I is required to satisfy General Education Basic Skills Requirements.

PHYS 100 Physics I with PHYS 130 Elementary Physics I Laboratory is required to satisfy the Physical Science area of General Education Requirements.

Pitt State Pathway Requirements (43-45 hrs.)

CORE ELEMENTS - 12 hours

Written Communication

A0	ENGL 101: English Composition	3
A0	ENGL 299: Introduction to Research Writing	3

Verbal Communication

B0	COMM 207: Speech Communication	3
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Quantitative/Analytic Methods - Select ONE

C0	MATH 110: College Algebra with Review	5
C0	MATH 113: College Algebra	3
C0	MATH 126: Pre-Calculus	3
C0	MATH 133: Quantitative Reasoning	3
C0	MATH 143: Elementary Statistics	3
C0	MATH 150: Calculus I	5

ESSENTIAL STUDIES (letter) / Companion Element (number) 23-24 hours minimum total

The Human Experience/Diverse Perspectives

D1	ENGL 113: General Literature	3
D1	ENGL 114: General Literature (Genre)	3
D1	ENGL 116: General Literature (Theme)	3
D1	ENGL 120: Literature and Film	3
D1	ENGL 250: Introduction to Creative Writing	3
D1	ENGL 315: Mythology	3
D1	ENGL 320: Literature and Film	3

The Human Experience/Non-Verbal & Creative Expression

D3	ART 178: Introduction to the Visual Arts	3
D3	ART 188: The Designed World	3
D3	ART 217: Crafts I	3
D3	ART 222: Jewelry Design	3
D3	ART 233: Drawing I	3
D3	ART 244: Ceramics I	3
D3	ART 266: Sculpture I	3
D3	ART 277: Painting I	3
D3	ART 288: Introduction to Art History I	3
D3	ART 289: Introduction to Art History II	3
D3	ART 311: Art Education	3
D3	COMM 105: Performance Appreciation	3
D3	COMM 205: Performance Studies	3
D3	COMM 395: Theatre History	3
D3	HHP 151: Dance Appreciation	3
D3	MUSIC 120: Music Appreciation	3
D3	MUSIC 121: Introduction to Music Literature	3
D3	MUSIC 321: History of Music	3
D3	MUSIC 322: History of Music	3

Human Systems / No Companion Elements

E0	CIS 130: Computer Information Systems	3
E0	EDUC 261: Explorations in Education	3
E0	EET 247: Computer Programming for Electronics	3
E0	MECET 121: Engineering Graphics I	3
E0	MGT 101: Introduction to Business	3

Human Systems / Diverse Perspectives

E1	ANTH 101: Introduction to Cultural Anthropology	3
E1	GEOG 106: World Regional Geography	3
E1	GEOG 300: Elements of Geography	3
E1	GEOG 304: Human Geography	3
E1	HIST 101: World History to 1500	3
E1	HIST 102: World History from 1500	3
E1	HIST 201: World History to 1865	3
E1	HIST 202: World History from 1865	3
E1	MFGET 405: Quality Control	3
E1	MLL 124: French Language and Culture I	3

E1	MLL 154: Spanish Language and Culture I	3
E1	PHIL 103: Introduction to Philosophy	3
E1	PHIL 231: World Religions	3
E1	POLS 103: Comparative Political Institutions	3
E1	SOC 100: Introduction to Sociology	3
E1	WGS 399: Global Women's Issues	3

Human Systems / Social Responsibility

E2	ECON 191: Issues in Today's Economy	3
E2	ECON 200: Principles of Microeconomics	3
E2	ECON 201: Principles of Macroeconomics	3
E2	EDTH 330: Technology in the Classroom	3
E2	ETECH 502: Engineering Economy	3
E2	FCS 230: Consumer Education/Personal Finance	3
E2	GT 190: Introduction to Technological Systems	2
E2	GT 350: Technology and Civilization	3
E2	NURS 303: Introduction to Public Health	3
E2	PHIL 105: Ethics	3
E2	PHIL 112: Biomedical Ethics	3
E2	PHIL 113: Business Ethics	3
E2	PHIL 114: Environmental Ethics	3
E2	POLS 101: U.S. Politics	3
E2	WGS 200: Intro to Women's Studies	3

Human Systems / Scientific Inquiry

E4	MFGET 263: Manufacturing Methods I	3
E4	MFGET 263: Manufacturing Methods I Lab	1

Natural World / No Companion Element

F0	BIOL 617: Environmental Health	3
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Natural World / Scientific Inquiry

F4	BIOL 111: General Biology	3
F4	BIOL 112: General Biology Lab	2
F4	BIOL 113: Environmental Life Science	4
F4	BIOL 211: Principles of Biology I	4
F4	CHEM 105: Introductory Chemistry	3
F4	CHEM 106: Introductory Chemistry Lab	1
F4	CHEM 215: General Chemistry I	3
F4	CHEM 216: General Chemistry I Lab	1
F4	PHYS 100: College Physics I	4
F4	PHYS 104: Engineering Physics I	4
F4	PHYS 130: Elementary Physics Lab I	1
F4	PHYS 160: Physical Geology	3
F4	PHYS 165: Physical Geology Lab	1
F4	PHYS 166: Meteorology	3
F4	PHYS 167: Meteorology Lab	3
F4	PHYS 171: Physical Science	3
F4	PHYS 172: Physical Science Lab	1
F4	PHYS 175: Descriptive Astronomy	3
F4	PHYS 176: Astronomy Lab	1
F4	PHYS 375: Solar System Astronomy	3

Wellness Strategies / No Companion Element

G0	EXSCI 200: Introduction to Exercise Science	1
G0	FCS 203: Nutrition and Health	3
G0	HHP 150: Lifetime Fitness Concepts	1

Wellness Strategies / Non-Verbal & Creative

G3	DANCE 200: Dance	1
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Wellness Strategies / Scientific Inquiry

G4	PSYCH 155: General Psychology	3
H0	UGS 150: Gorilla Gateway	2

Total hours required 120

Courses highlighted in Yellow are RECOMMENDED for students in all emphasis areas.

Courses highlighted in Grey are REQUIRED for the Automotive Mechanical Design emphasis.

NOTE: The information contained herein is intended to be used for the planning of a student's academic program and does not constitute a contract. While this guide was prepared with the latest information, courses, graduation requirements, and curricula are subject to change.

When a student attains 85 semester hours of credit (including current enrollment) the student must apply for a degree check in the Office of the Registrar (Degree Checking Section), Room 102 Russ Hall.

MINIMUM GENERAL REQUIREMENTS: The minimum requirements for graduation include 120 semester hours of which 60 hours must be from a four-year university. In addition, 45 semester hours must be upper division and 30 hours in residence at PSU (including 24 of the last 30). Minimum GPA for non-education degree is 2.0 overall [2.0 in major], secondary education degree is 2.5 overall [2.75 in major], and early/late childhood/unified degree is 2.80 overall [3.0 in major]. A minimum GPA of 2.0 in any major and in residence coursework is required. General Education and all degree requirements are provided in the online catalog. Refer to individual departments for specific requirements.