



Pittsburg State University College of Technology Program Guide

Degree: Bachelor of Science in Technology
Major: Automotive Technology
Emphasis/Option:
Minor (if required):

As of Fall 2017

Support Courses

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

** Approved Electives (7 credit hours 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 340: Diesel Engine Fundamentals	3
AT 400: Automotive Internship (____)	3-6
AT 403: Current Topics in Automotive Technology (____)	1-3
AT 405: Laboratory Teaching Internship	3
AT 416: Fluid Power	3
AT 418: Failure Analysis	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 630: On Highway Systems	3
AT 635: Advanced Engine performance	3
AT 641: Construction Equipment Systems	3
AT 642: Agricultural Equipment and Powertrains	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

**Courses cannot be used as elective and required course.

Automotive Technical Core

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 Transmission and Drivelines	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

At least one of the following options must be completed

Option One: Manufacturing Management in the Transportation Industry

MFGET 160: Manufacturing Graphics	3
MFGET 261: Computer Aided Part Design	3
MFGET 263: Manufacturing Methods I	2
MFGET 268: Manufacturing Methods I Laboratory	1
MFGET 367: Manufacturing Methods II	4
MFGET 405: Quality Control	3
EST 393: Introduction to Industrial Safety	3
Approved manufacturing elective#	3-5 hours

#MFGET 661 Computer Aided Manufacturing I or MFGET 567 Principles of Metalcasting plus MFGET 568 Metalcasting Processing Laboratory are the recommended electives.

Option Two: Dealership and Corporate Transportation Management

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
MKTG 330: Principles of Marketing	3
MGMKT 444: Legal and Social Environment of Business	3

ACCTG 202 can be substituted through approval of an accounting elective.

Option Three: Diesel and Heavy Equipment

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
AT 642: Agricultural Equipment and Powertrains	3
AT 654: Advanced Hydraulic Systems and Off Highway Systems Laboratory	3

Option Four: Collision Repair and Insurance Management

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 (7 of the 8 courses)

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	2
EET 141: Introductory Electronics	3

Option Six: Automotive Mechanical Design##

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 Sciences area of General Education Requirements.

GENERAL EDUCATION REQUIREMENTS

(46-54 hrs.)

Basic Skills 12-14 hours

COMM	207	Speech Communication.....	3
ENGL	101	English Composition.....	3
ENGL	190	Honors English Composition.....	3
or ENGL	299	Introduction to Research Writing.....	3

Mathematics* (Select one)

MATH	110	College Algebra with Review	5
MATH	113	College Algebra.....	3
MATH	133	Quantitative Reasoning	3
MATH	150	Calculus I	5

Sciences 8-10 hours

Natural Sciences (Select one)

BIOL	111/112	General Biology and Laboratory.....	5
BIOL	113	Environmental Life Science	4
BIOL	211	Principles of Biology I	4

Physical Sciences ** (Select one)

CHEM	105/106	Introductory Chemistry and Laboratory	4
CHEM	107/108	Chemistry for Life Sciences and Laboratory.....	4
PHYS	100/130	College Physics I and Lab.....	5
PHYS	160/165	Physical Geology and Laboratory	4
PHYS	171/172	Physical Science and Laboratory	4

Social Studies 3 hours

SOC	100	Introduction to Sociology	3
WGS	200	Introduction to Women's Studies	3

Political Studies (Select one) 3 hours

POLS	101	U.S. Politics	3
POLS	103	Comparative Political Institutions	3

Producing and Consuming 5-6 hours

GT	190	Introduction to Technological Systems	2
or GT	350	Technology and Civilization	3
ACCTG	201	Financial Accounting	3
or CIS	130	Computer Information Systems	3
or MGT	101:	Introduction to Business	3
or MGT	105:	Introduction to Entrepreneurship	3

Fine Arts and Aesthetic Studies (Select one)..... 2-3 hours

ART	155	Printmaking and Paper Arts	3
ART	178	Introduction to the Visual Arts	3
ART	188	The Designed World.....	3
ART	217	Crafts I.....	3
ART	222	Jewelry Design I	3
ART	233	Drawing I	3
ART	244	Ceramics I	3
ART	266	Sculpture I	3
ART	277	Painting I	3
ART	288	Introduction to Art History I	3
ART	289	Introduction to Art History II	3
ART	311	Art Education.....	3
ART	351	Printmaking, Papermaking, Bookarts and the Letterpress.....	3
ART	430	Automotive: Art and Design.....	3
COMM	105	Performance Appreciation	3

COMM	205	Performance Studies.....	3
COMM	295	Theatre History.....	3
ENGL	250	Introduction to Creative Writing	3
HHP	151	Dance Appreciation.....	3
MUSIC	120	Music Appreciation	3
MUSIC	121	Introduction to Music Literature	2

Cultural Studies (Select one) 3 hours

ANTH	101	Introduction to Cultural Anthropology.....	3
MLL	114	Chinese Language and Culture I	3
MLL	124	French Language and Culture I	3
MLL	154	Spanish Language and Culture I	3
MLL	184	Russian Language and Culture I	3
MLL	194	Korean Language and Culture I.....	3
GEOG	106	World Regional Geography	3
GEOG	300	Elements of Geography.....	3
GEOG	304	Human Geography	3
WGS	399	Global Women's Issues.....	3

Health and Well Being 4-6 hours

Psychological			
PSYCH	155	General Psychology	3
Physical (Select one)			
FCS	203	Nutrition and Health.....	3
FCS	301	Nutrition.....	3
HHP	150	Lifetime Fitness Concepts.....	1
NURS	303	Introduction to Public Health.....	3

Human Heritage 6 hours

(Select one from two of the following three categories)

History			
HIST	101	World History to 1500.....	3
HIST	102	World History from 1500.....	3
HIST	201	American History to 1865.....	3
HIST	202	American History from 1865.....	3
Literature			
ENGL	113	General Literature.	3
ENGL	114	General Literature (Genre)	3
ENGL	116	General Literature (Theme)	3
ENGL	120	Literature and Film	3
ENGL	315	Mythology.....	3
ENGL	320	Literature and Film	3
Philosophy			
PHIL	103	Introduction to Philosophy.	3
PHIL	105	Ethics.....	3
PHIL	112	Biomedical Ethics.....	3
PHIL	113	Business Ethics.....	3
PHIL	114	Environmental Ethics.....	3
PHIL	207	Critical Thinking.....	3
PHIL	208	Logic	3
PHIL	231	World Religions.....	3

Notes *MATH 150 is required for Automotive Mechanical Design Option.

**PHYS 100 and PHYS 130 are required for Automotive Mechanical Design Option.

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 124 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 minor 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.