Curriculum - Engineering (Automotive Systems), BSE

Catalog Year: 2026 - 2027 **General Studies Gold**

Degree: Bachelor of Science in Engineering, BSE

College/School: Ira A. Fulton Schools of Engineering

Plan Code: TSEGRASBSE

Minimum credit hours: 120

Upper division minimum credit hours: 45

Requirement	Minimum Grade	Credit Hours
Engineering Major Core		
EGR 101 Foundations of Engineering Design Project I		3
EGR 102 Foundations of Engineering Design Project II	C	3
EGR 201 Use-Inspired Design Project I	C	3
EGR 202 Use-Inspired Design Project II	C	3
EGR 216 Engineering Electrical Fundamentals	C	3
EGR 217 Engineering Mechanics Fundamentals	C	3
EGR 218 Materials and Manufacturing Processes	C	3
EGR 219 Computational Modeling of Engineering Systems	C	3
EGR 401 Professional Design Project I	C	3
EGR 402 Professional Design Project II		3
Automotive Systems Concentration Area		
EGR 306 Automotive Systems Project I	C	3

Requirement	Minimum Grade	Credit Hours
EGR 316 Automotive Systems Project II	C	3
EGR 330 Design of Electrical Systems OR EGR 432 Engineering Thermo-Fluids II If Electrical specialization, students must take EGR 330; if Mechanical specialization, students must take EGR 432.		3
EGR 340 Engineering Thermo-Fluids I	C	3
EGR 363 Automotive Powertrains and Thermal Systems	C	3
EGR 463 Vehicle Electrical Systems and Hybrid Systems		3
EGR 465 Ground Vehicle Dynamics		3
PHY 321 Vector Mechanics and Vibration		3

Engineering (Automotive Systems) Major GPA

Check: Minimum 2.0 Major GPA

Math, Science, and Interdisciplinary Studies Requirements

CHM 113 General Chemistry I (SCIT)	C	4
EGR 280 Engineering Statistics (QTRS)		3
HST 318 History of Engineering (HUAD)		3
MAT 265 Calculus for Engineers I (MATH)	C	3
MAT 266 Calculus for Engineers II (MATH)	C	3
MAT 267 Calculus for Engineers III (MATH)	C	3
MAT 275 Modern Differential Equations (MATH)	C	3
MAT 343 Applied Linear Algebra		3

PHY 121 University Physics I: Mechanics (SCIT)	C	3
PHY 122 University Physics Laboratory I (SCIT)	C	1
Science Elective ABS 130 Introduction to Environmental Science (SCIT) ABS 225 Soils AST 111 Introduction to Solar Systems Astronomy (SCIT) BIO 181 General Biology I (SCIT) CHM 116 General Chemistry II (SCIT) CHM 231 Elementary Organic Chemistry (SCIT) ENV 130 Introduction to Environmental Science (SCIT) GLG 101 Introduction to Geology I (Physical) (SCIT) PHY 131 University Physics II: Electricity and Magnetism (SCIT)		3

ASU 101 or College-Specific First-Year Seminar

ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students.

ASU 101-TPS The ASU Experience		1

First-Year Composition

ENG 101 First-Year Composition **AND** ENG 102 First-Year Composition **OR** ENG 105 Advanced First-Year Composition **OR** ENG 107 First-Year Composition **AND** ENG 108 First-Year Composition	C	6

Notes

All baccalaureate degree students must fulfill university graduation requirements, including a minimum of 120 credit hours, with at least 45 credit hours in upper-division courses.

All undergraduate students must complete General Studies requirements.

Mathematics Placement Assessment score determines placement in first mathematics course.

Students should work with their academic advisor, and consider course prerequisites, in order to complete all degree requirements in four years.

General Studies designations listed next to courses were valid for the 2026 - 2027 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.