

















## 2024 - 2025 Major Map

### Engineering, **BSE**

School/College: Ira A. Fulton Schools of Engineering  
TSEGRBSE

Term 1 0 - 16 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 ASU 101-TPS: The ASU Experience	1		<ul style="list-style-type: none"><li>ASU 101 is required of all first-year students.</li><li>Students must choose a concentration from the following areas: Automotive Systems, Electrical Systems, Mechanical Engineering Systems, or Robotics. Upon choosing a concentration, students will be moved into that appropriate degree program.</li><li>Prep for success using the <b>First-Year Student Guide</b>.</li><li>Join a <b>Fulton community</b>.</li><li>Explore <b>engineering and technical professions</b>.</li></ul>
 EGR 101: Foundations of Engineering Design Project I	3		
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
MAT 265: Calculus for Engineers I (MATH OR MA)	3	C	
Humanities, Arts and Design (HUAD)	3		
Social and Behavioral Sciences (SOBE)	3		
Term hours subtotal:	16		
Term 2 16 - 32 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 EGR 102: Foundations of Engineering Design Project II	3		<ul style="list-style-type: none"><li>Students must choose a concentration from the following areas: Automotive Systems, Electrical Systems, Mechanical Engineering Systems, or Robotics. Upon choosing a concentration, students will be moved into that appropriate degree program.</li><li>Create a <b>Handshake</b> profile.</li><li>Get involved with EPICS, the Generator Labs, and the <b>Fulton Start-Up Center</b>.</li></ul>
CHM 113: General Chemistry I (SCIT OR SQ)	4	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
MAT 266: Calculus for Engineers II (MATH OR MA)	3	C	
Governance and Civic Engagement (CIVI)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
 Complete MAT 265 course(s).			
Term hours subtotal:	16		
Term 3 32 - 48 Credit Hours <b>Critical course signified by</b> 	Hours	Minimum Grade	Notes
 EGR 201: Use-Inspired Design Project I	3	C	<ul style="list-style-type: none"><li>Students must choose a concentration from the following areas: Automotive Systems, Electrical Systems, Mechanical Engineering Systems, or Robotics. Upon choosing a concentration, students will be moved into that appropriate degree program.</li><li>Prep for success using the <b>Sophomore Guide</b>.</li><li>Consult the <b>Resume, Presentation, and Resource Library</b> for tips on how to create a technical resume, job shadow, do informational interviews and mentor with alumni.</li></ul>
EGR 216: Engineering Electrical Fundamentals	3	C	
EGR 218: Materials and Manufacturing Processes	3	C	
MAT 267: Calculus for Engineers III (MATH OR MA)	3	C	
PHY 121: University Physics I: Mechanics (SCIT OR SQ)	3	C	
PHY 122: University Physics Laboratory I (SCIT OR SQ)	1	C	
 Complete MAT 266 course(s).			
Complete Mathematics (MATH) requirement.			
Term hours subtotal:	16		

Term 4 48 - 63 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 EGR 202: Use-Inspired Design Project II	3	C	<ul style="list-style-type: none"> <li>Students must choose a concentration from the following areas: Automotive Systems, Electrical Systems, Mechanical Engineering Systems, or Robotics. Upon choosing a concentration, students will be moved into that appropriate degree program.</li> <li>Pursue an <b>undergraduate research experience</b>.</li> <li>Apply for <b>internships</b>.</li> <li>Attend <b>career fairs and events</b>.</li> </ul>
 EGR 217: Engineering Mechanics Fundamentals	3	C	
 EGR 219: Computational Modeling of Engineering Systems	3	C	
EGR 280: Engineering Statistics (QTRS OR CS)	3		
MAT 275: Modern Differential Equations (MATH OR MA)	3	C	
 Complete EGR 216 AND EGR 218 course(s).			
 Milestone: Selection of Engineering concentration			
Term hours subtotal:	15		

#### Hide Course List(s)/Track Group(s)

- **Total Hours:** 63
- **Upper Division Hours:** 45 minimum
- **University Undergraduate Graduation Requirements**

#### Notes:

Mathematics Placement Assessment score determines placement in first mathematics course.

General Studies designations listed next to courses on the major map were valid for the 2024 - 2025 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.