

EKU Department of Engineering and Technology
Suggested Curriculum Guide for BS Engineering (2026-2027)- Rev. 5/5/2026

First Semester (16 Hours)		Second Semester (15 Hours)	
EGR 150 - Engineering: Design, Ethics, and Societal Impacts	3	EGR 195 - Engineering Graphics and Design	3
MAT 234 - Calculus I (E-2A) G	4	MAT 244 - Calculus II	4
GSD 101 - Foundations of Learning	3	ENG 102 - Research, Writing, and Rhetoric (E-1B) G*	3
ENG 101 - Reading, Writing, and Rhetoric (E-1A) G*	3	PHY 201 - University Physics I (E-2B) G	5
Gen. Ed. 1C - E-1C (Oral Communication) G	3		

First Semester (15 Hours)		Second Semester (16 Hours)	
EGR 201 - Metallic Material Processes	3	EGR 202 - Statistical Quality Control	3
STA 270 - Applied Statistics	4	EGR 301 - Non-Metallic Material Processes	3
PHY 202 - University Physics II	5	EGR 310 - Engineering Computation	3
PHI 130 - Beginning Ethics (E-3B) G	3	CHE 111 - General Chemistry (Gen. ed. Flex)	3
		CHE 111L - General Chemistry Lab I	1
		PHY 221 - Statics	3

First Semester (15 Hours)		Second Semester (15 Hours)	
EGR 307 - Thermal Systems Engineering	3	EGR 306 - Electrical Circuits and Systems for Engineers	3
MAT 353 - Differential Equations	3	EGR 308 - Fluid Systems Engineering	3
PHY 360 - Engineering Dynamics	3	STA 340 - Applied Regression Analysis	3
ECO 230 - Fundamentals of Microeconomics (E-4B) G	3	Concentration Class 2	3
Concentration Class 1	3	Gen. Ed. 3A - E-3A (Arts) G	3

First Semester (15 Hours)		Second Semester (13 Hours)	
EGR 330 - Materials Testing and Measurement	3	EGR 499 - Senior Capstone Design Project II	3
EGR 407 - Engineering Project Management	3	EGR 501 - Engineering Economic Analysis	3
EGR 498 - Senior Capstone Design Project I	3	Concentration Class 4	3
Concentration Class 3	3	Free Electives	4
Gen. Ed. E-4A - (Historical and Global Perspective) G	3		

Concentration Requirements (12 Hours)

*Students must select **one** of the following concentrations and complete 12 credit hours. At least 6 hours must be 300-level or higher:*

1. Manufacturing Engineering Concentration: MFE 352 - Industrial Robotics and Automation, MFE 382 - Advanced Manufacturing Processes, MFE 390 - Computer-Aided Design and Analysis, MFE 453 - Additive Manufacturing, EGR 349 - Engineering Internship/Co-op

2. Industrial Engineering Concentration: MFE 308 - Lean Manufacturing Systems, MFE 332 - Statistical Process Control and Quality Auditing, MFE 506 - Lean Six Sigma for Manufacturing, STA 570 - Quality Control & Reliability, STA 585 - Experimental Design, EGR 349 - Engineering Internship/Co-op

3. Engineering Science and Systems Concentration: EGR 292 - Topics in Engineering Science and Systems, EGR 392 - Advanced Topics in Engineering Science and Systems, EGR 493 - Directed Studies in Engineering Science and Systems, EGR 349 - Engineering Internship/Co-op