

ENGINEERING PHYSICS

AEROSPACE SYSTEMS DESIGN CONCENTRATION

Information appearing in this guide is subject to change. Please talk with your departmental adviser about degree requirements on a regular basis.

freshman year – fall

		hours
AE 245	Introduction to Aerospace Engineering.....	3
CHEM 150	Chemistry for Engineers**.....	5
ENGL 101	Composition (or any KU Core GE 2.1).....	3
MATH 125 ^H	Calculus I.....	4
PHSX 150	Seminar in Phys., Astr., & Engineering Physics.....	5
	TOTAL HOURS.....	15.5

freshman year – spring

EECS 138	Introduction to Computing.....	3
ENGL 102 ^H	Critical Reading & Writing (or any KU Core GE 2.1).....	3
MATH 126 ^H	Calculus II.....	4
PHSX 211	General Physics I, and	4
PHSX 216	General Physics I Laboratory	1
-or-		
PHSX 213	General Physics I Honors	5
	TOTAL HOURS.....	15

sophomore year – fall

AE 345	Fluid Mechanics	3
CE 301	Statics & Dynamics	5
MATH 127 ^H	Calculus III.....	4
MATH 290 ^H	Elementary Linear Algebra.....	2
PHSX 212	General Physics II, and	3
PHSX 236	General Physics II Laboratory	1
-or-		
PHSX 214	General Physics II Honors	4
	TOTAL HOURS.....	18

sophomore year – spring

AE 445	Aircraft Aerodynamics.....	3
ME 312	Basic Engineering Thermodynamics.....	3
CE 310	Strength of Materials.....	4
MATH 220 ^H	Applied Differential Equations, or ...	
MATH 320	Elementary Differential Equations	3
PHSX 313	General Physics III.....	3
PHSX 316	Intermediate Physics Lab.....	1
	TOTAL HOURS.....	17

junior year – fall

		hours
AE 507	Aerospace Structures I.....	3
AE 545	Fundamentals of Aerodynamics.....	5
AE 550	Dynamics of Flight I.....	3
EPHX 521	Mechanics I.....	3
	KU Core Elective* ^H	3
	TOTAL HOURS.....	17

junior year – spring

AE 421	Computer Graphics	4
AE 551	Dynamics of Flight II.....	4
AE 572	Fundamentals of Jet Propulsion	3
EPHX 536	Electronic Circuit Measurement & Design (s), or ...	
AE 508	Aerospace Structures II (a)	3-4
	TOTAL HOURS.....	14-15

senior year – fall

AE 521	Aerospace Systems Design I (a), or ...	
AE 560	Spacecraft Systems (s)	3-4
EPHX 516	Physical Measurements	4
EPHX 531	Electricity & Magnetism	3
	KU Core Electives* ^H	6
	TOTAL HOURS.....	16-17

senior year – spring

EPHX 536	Electronic Circuit Measurement & Design (a), or ...	
AE 523	Space Systems Design, (s)	4
EPHX 601	Design of Physical & Electronic Systems	4
	KU Core Electives* ^H	6
	TOTAL HOURS.....	14

CURRICULUM NOTES

(a) Aircraft track

(s) Spacecraft track

* Students must ensure the electives they choose fulfill all remaining KU Core requirements.

**CHEM 130^H can be substituted for CHEM 150.

^H Honors equivalent course is available.

ENGINEERING PHYSICS: AEROSPACE SYSTEMS KU CORE DISTRIBUTION



CRITICAL THINKING & QUANTITATIVE LITERACY

GE 1.1 CRITICAL THINKING: PHSX 211
GE 1.2 QUANTITATIVE LITERACY: MATH 125



COMMUNICATION

GE 2.1 WRITTEN COMMUNICATION:
MEET VIA KU CORE REQUIREMENTS
GE 2.2 ORAL COMMUNICATION:
MEET VIA KU CORE REQUIREMENTS



BREADTH OF KNOWLEDGE

GE 3H ARTS & HUMANITIES:
1 COURSE FROM KU CORE LIST
GE 3N NATURAL SCIENCES: CHEM 150
GE 3S SOCIAL SCIENCES:
MEET VIA KU CORE REQUIREMENTS



CULTURE & DIVERSITY

AE 4.1 DIVERSITY IN UNITED STATES:
MEET VIA KU CORE REQUIREMENTS
AE 4.2 GLOBAL AWARENESS:
MEET VIA KU CORE REQUIREMENTS



SOCIAL RESPONSIBILITY & ETHICS

AE 5 ETHICS & SOCIAL RESPONSIBILITY:
PHSX 216, 316 AND EPHX 516 (pending approval)



INTEGRATION & CREATIVITY

AE 6 CAPSTONE: PHSX / EPHX 601

ENGINEERING PHYSICS SPECIFIC GENERAL EDUCATION REQUIREMENTS: When not specified visit kucore.ku.edu/courses for approved courses and activities.