

Kansas City Kansas Community College

Transfer Program to University of Kansas

B.S. Engineering Physics

(Aerospace Systems, Chemical Systems, Digital Electronic Systems, Electromechanical Control Systems)

Number to call at KU for advising: (785) 864-4626

Website: www.physics.engr.ku.edu

Transfer students must have at least a 2.5 GPA and proof of competency in calculus.

Requirements (all students):

Aerospace Systems:

KU Course Requirements

KCKCC Equivalents

MATHEMATICS					<u>Core</u>
MATH 125 Calculus	4		MA 122 Calculus and Analytical Geometry	5	GE12
MATH 126 Calculus 2	4		MA 123 Calculus and Analytical Geometry 2	5	
MATH 127 Calculus 3	4		MA 224 Calculus and Analytical Geometry 3	5	
MATH 290 Elementary Linear Algebra	2		No equivalent		
MATH 220 Differential Equations	3		MATH 227 Differential Equations	3	

NATURAL SCIENCES					<u>Core</u>
PHSX 211 & 216 Engineering Physics	5		NASC 245 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		NASC 246 Engineering Physics	5	GE3N
CHEM 130 Chemistry	5		CHEM 111 College Chm with Lab	5	GE12, GE3N

Chemical Systems:

KU Course Requirements

KCKCC Equivalents

MATHEMATICS					<u>Core</u>
MATH 125 Calculus	4		MA 122 Calculus and Analytical Geometry	5	GE12
MATH 126 Calculus 2	4		MA 123 Calculus and Analytical Geometry 2	5	
MATH 127 Calculus 3	4		MA 224 Calculus and Analytical Geometry 3	5	
MATH 290 Elementary Linear Algebra	2		No equivalent		

NATURAL SCIENCES					<u>Core</u>
PHSX 211 & 216 Engineering Physics	5		NASC 245 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		NASC 246 Engineering Physics		GE3N
CHEM 130 Chemistry	5		CHEM 111 College Chm with Lab	5	GE12, GE3N
CHEM 135 Chemistry 2	5		CHEM 112 College Chm with Lab	5	GE3N, GE12
CHEM 330 & 331 Organic Chemistry	5		CHEM 211 & 213 Organic Chemistry 1	5	

Digital Electronic Systems:

KU Course Requirements

KCKCC Equivalents

MATHEMATICS					<u>Core</u>
MATH 125 Calculus	4		MA 122 Calculus and Analytical Geometry	5	GE12
MATH 126 Calculus 2	4		MA 123 Calculus and Analytical Geometry 2	5	
MATH 127 Calculus 3	4		MA 224 Calculus and Analytical Geometry 3	5	
MATH 290 Elementary Linear Algebra	2		No equivalent		
MATH 220 Differential Equations	3		MATH 227 Differential Equations	3	

NATURAL SCIENCES					<u>Core</u>
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PHSX 211 & 216 Engineering Physics	5	NASC 245 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	NASC 246 Engineering Physics	5	GE3N
CHEM 130 Chemistry	5	CHEM 111 College Chm with Lab	5	GE12, GE3N

Electromechanical Control Systems:

KU Course Requirements

KCKCC Equivalent

MATHEMATICS				Core
MATH 125 Calculus	4	MA 122 Calculus and Analytical Geometry	5	GE12
MATH 126 Calculus 2	4	MA 123 Calculus and Analytical Geometry 2	5	
MATH 127 Calculus 3	4	MA 224 Calculus and Analytical Geometry 3	5	
MATH 290 Elementary Linear Algebra	2	No equivalent		
MATH 220 Differential Equations	3	MATH 227 Differential Equations	3	

NATURAL SCIENCES				Core
PHSX 211 & 216 Engineering Physics	5	NASC 245 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	NASC 246 Engineering Physics	5	GE3N
CHEM 130 Chemistry	5	CHEM 111 College Chm with Lab	5	GE12, GE3N

KU Core Curriculum (additional requirements not covered by degree requirements)

Additional courses that satisfy the KU Core are continuously updated and available at <http://kucore.ku.edu/courses>.

KU Course Requirements

KCKCC Equivalent

Goal 1: Critical Thinking and Quantitative Literacy (1 Unit from each outcome)				
Outcome 1		GE11		
ENGL 210 Intro to Poetry	3	ENGL 108 Intro to Poetry		3
ENGL 209 Intro to Fiction	3	ENGL 109 Intro to Fiction		3
ENGL 211 Intro to Drama	3	ENGL 212 Drama As Literature		3
HWC 204 Western Civilization	3	HIST 204 or 115 Western Civilization		3
HWC 205 Western Civilization 2	3	HIST 205 or 116 Western Civilization 2		3
COMS 230 Fundamentals of Debate	3	SPCH 160 Debate		3
PHIL 140 Intro to Philosophy	3	PHIL 103 Intro to Philosophy		3
PHIL 148 Reason and Argument	3	PHIL 105 Logic		3
SOC 160 Social Problems/American Values	3	SOSC 209 Social Problems		3
BLAW S301 Legal Aspects of Business	3	BUSN 204 Business Law		3
Outcome 2		GE12		
MATH 101 College Algebra	3	MATH 105 College Algebra		3
MATH 104 Precalculus Math	5	MATH 108 Pre-Calculus Mathematics		5
MATH 115 Calculus	3	MATH 120 Calculus I (Non-Engineering)		5
MATH 125 Calculus	4	MATH 122 Calc & Analytic Geometry		5
CHEM 130 Chemistry	5	CHEM 111 College Chm with Lab		5
CHEM 135 Chemistry 2	5	CHEM 112 College Chm with Lab 2		5
PHSX 114 College Physics	5	NASC 231 General Physics		5
PHSX 211 General Physics	5	NASC 245 Engineering Physics		5
MATH S365 Elementary Stats	3	MATH 115 Statistics		3

Goal 3: Breadth of Knowledge (3 Units) -one from each category				
Arts & Humanities		GE3H		
ANTH 110 Intro to Archaeology	3	ANTH 105 Archaeology		3
CLSX 148 Greek and Roman Mythology	3	ENGL 135 World Mythology		3
		ENGL 105 Early World Literature		3
		ENGL 106 Modern World Literature		3
ENGL 210 Intro to Poetry	3	ENGL 108 Intro to Poetry		3
ENGL 209 Intro to Fiction	3	ENGL 109 Intro to Fiction		3
		ENGL 132 Science Fiction		3
		ENGL 221 Latino Literature and Culture		3

		ENGL 133 Women in Literature	3
		ENGL 136 Short Story	3
		ENGL 137 Bible As Lit: Old Testament	3
		ENGL 210 Early American Literature	3
		ENGL 211 Modern American Literature	3
ENGL 211 Intro to Drama	3	ENGL 212 Drama As Literature	3
		ENGL 214 African-American Literature	3
		ENGL 217 Major English Writers	3
		ENGL 218 Major English Writers 2	3
		ENGL 220 Native American Literature	3
		HIST 108 Religion in America	3
		HIST 107 Modern Europe	3
		HUMN 101 Intro To Humanities	3
		HUMN 102 Intro To Humanities 2	3
		HUMN 200 Foundtns Of Film & Theatre	3
		HIST 107 Intro to Modern Europe	3
		THTR 112 Dance History	3
ART 101 Drawing	3	FNAR 111 Drawing	3
REL 171 Religion in American Society	3	HIST 108 Religion in America	3
REL 104 Intro to Religious Studies	3	HUMN 207 Comparative Wrld Religions	3
HIST 121 Modern Latin America	3	HIST 112 Modern Latin America	3
PHIL 140 Intro to Philosophy	3	PHIL 103 Intro to Philosophy	3
THR 100 Intro to Theatre	3	THTR 101 Theatre Appreciation	3
THR 106 Intro to Acting	3	THTR 105 Introduction to Acting	3
		THTR 115 Acting I	3
HA 150 Western Art History	3	FNAR 102 Art History I	3
HA 151 Western Art History 2	3	FNAR 103 Art History 2	3
HIST 128 Hist US thrgh Civil War	3	HIST 104 United States To 1877	3
HIST 129 Hist of US After Civil War	3	HIST 105 United States Since 1877	3
Social Sciences		GE3S	
GEOG 102 Princ of Human Geography		GEOG 101 Intro to Cultural Geography	3
EPSY S305 Child Development	3	PSYC 202 Child Development	3
ANTH 108 Cultural Anthropology	3	ANTH 101 Intro Cultural Anthropology	3
COMS 244 Intr Personal Comm	3	SPCH 153 INTERPERSONAL Communications	3
ECON 142 Princ of Microeconomics	3	ECON 202 Principles of Microeconomics	3
ECON 144 Princ of Macroeconomics	3	ECON 201 Principles of Macroeconomics	3
POLS 110 Intro to US Politics	3	POSC 111 American National Govern	3
POLS 170 Intro to International Politics	3	POSC 102 International Relations	3
PSYC 104 General Psychology	3	PSYC 101 Psychology	3
SOC 104 Elements of Sociology	3	SOSC 107 Sociology	3
		PSYC 203 Human Development	3
PSYC 120 Personality	3	PSYC 204 Personality	3
ANTH 100 General Anthropology	3	ANTH 100 General Anthropology	3
		POSC 101 Intro To Political Science	3
SOC 220 Sociology of Families	3	SOSC 108 Sociology Of The Family	3
JOUR 101 Media and Society	3	JOUR 175 Intro to Mass Media	3
BLAW S301 Legal Aspects of Business		BUSN 204 Business Law	3

Goal 4: Culture and Diversity (1 Unit from each outcome)

Outcome 1		AE41	
AAAS 106 The Black Experience in America	3	HIST 106 Black History	3
SOC 160 Social Problems/ American Values	3	SOSC 209 Social Problems	3
WGSS 101 Intro to Wmn,Gnd,Sexu Studies	3	HUMN 150 Intro to Women's Studies	3
REL 171 Religion in American Society	3	HIST 108 Religion in America	3
SOC 104 Principals of Sociology	3	SOSC 107 Sociology	3
Outcome 2		AE42	
HWC 204 Western Civilization	3	HIST 204 or 115 Western Civilization	3
HWC 205 Western Civilization 2	3	HIST 205 or 116 Western Civilization 2	3
POLS 170 Intro to International Politics	3	POSC 102 International Relations	3
GEOG 102 Princ of Human Geography	3	GEOG 101 Intro to Cultural Geography	3

ANTH 108 Cultural Anthropology	3	ANTH 101 Intro Cultural Anthropology	3
REL 104 Intro to Religious Studies	3	HUMN 207 Comparative Wrld Religions	3
		HIST 103 Modern Asia	3
		ENGL 214 African-American Literature	3
		ENGL 220 Native American Literature	3
		ANTH 106 North American Indians	3
SPAN 212 Intermediate Spanish	3	LANG 243 Spanish	3
SPAN 216 Intermediate Spanish 2	3	LANG 244 Spanish 2	3
GERM 104 Elementary German	5	LANG 121 German	5
GERM 108 Elementary German 2	5	LANG 122 German 2	5
GERM 201 Intermediate German	3	LANG 223 German 3	3
GERM 202 Intermediate German 2	3	LANG 224 German 4	3

- In order to graduate in four years, a student must transfer to KU after one year
- Pass/Fail Policy. Only courses used to fulfill English, Humanities, and Social Science requirements will be accepted with a "P" grade
- *PHSX 211 satisfies the PHSX 210 requirement for Engineering at KU
- "S" before a number (Ex. MATH S365) indicates the course will be satisfied but will not count toward the number of Junior/Senior (upper-level) hours required for graduation
- The requirements listed above are subject to annual change
- A maximum of 64 hours of community college course work can be applied toward a KU degree
- Courses with a grade of D or below do not transfer