

Independence Community College

Transfer Program to University of Kansas

B.S. Electrical Engineering & Computer Science

(Computer Engineering, Computer Science, Electrical Engineering, Information Technology (Edward Campus only) and Interdisciplinary Computing)

Number to call at KU for advising: (785) 864-4487

Website: www.eecs.ku.edu

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

Requirements (all students):

The only classes listed are the ones that could be taken at a 2 year College.

Computer Engineering:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core	
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12	
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5		
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3		
MATH 220 Differential Equations	3	No equivalent			
MATH 290 Elementary Linear Algebra	2	No equivalent			

ECONOMICS & electives				Core	
Choose One:					
ECON 142 Princ of Microeconomics	3	BUS 2023 Microeconomics	3	GE3S	
ECON 144 Princ of Macroeconomics	3	BUS 2033 Macroeconomics	3	GE3S	
Electives-12 hours total of Humanities & Social Science (must be GE3H, AE41, AE42 + one extra GE3H or GE3S)					

NATURAL SCIENCES				Core	
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12	

Computer Science:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core	
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12	
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5		
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3		
MATH 290 Elementary Linear Algebra	2	No equivalent			

Humanities & Social Science electives				Core	
Electives-12 hours total of Humanities & Social Science (must include 2 GE3H and 2 GE3S)					

NATURAL SCIENCES				Core	
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12	
PHSX 212 & 236 Engineering Physics	4	PHS 2065 Engineering Physics 2	5	GE3N	
Choose One:					
CHEM 130 Chemistry	5	PHS 1025 College Chemistry	5	GE12, GE3N	
CHEM 135 Chemistry 2	5	PHS 1035 College Chemistry 2	5	GE12, GE3N	
GEOG 104 & 105 Princ Physic Geography		No equivalent		GE3N	
GEOL 101 How the World Works	3	PHS 1105 Geology	5	GE3N	

Electrical Engineering:

KU Course Requirements

Independence Equivalents

MATHEMATICS				Core
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 220 Differential Equations	3	No equivalent		
MATH 290 Elementary Linear Algebra	2	No equivalent		

ECONOMICS & electives				Core
Choose One:				
ECON 142 Princ of Microeconomics	3	BUS 2023 Microeconomics	3	GE3S
ECON 144 Princ of Macroeconomics	3	BUS 2033 Macroeconomics	3	GE3S
Electives-12 hours total of Humanities & Social Science (must be GE3H, AE41, AE42 + one extra GE3H or GE3S)				

NATURAL SCIENCES				Core
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	PHS 2065 Engineering Physics 2	5	GE3N
CHEM 130 Chemistry	5	PHS 1025 College Chemistry	5	GE12, GE3N

Information Technology:

KU Course Requirements

Independence Equivalents

MATHEMATICS				Core
MATH 101 College Algebra	3	MAT 1023 or 1025 College Algebra	3	GE12
OR				
MATH 104 Precalculus Mathematics	5	MAT 1015 Precalculus Math	5	GE12
MATH S365 Elementary Statistics	3	MAT 1103 Elementary Stats	3	GE12

ECONOMICS & electives				Core
ECON 104 Intro to Economics	3	No equivalent		GE3S
ENGL 362 Technical Writing	3	ENG 2053 Technical Writing	3	

NATURAL SCIENCES-Choose one				Core
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12
PHSX 114 College Physics	5	PHS 1055 General College Physics	5	GE3N, GE11, GE12
CHEM 130 Chemistry	5	PHS 1025 College Chemistry	5	GE12, GE3N
BIOL 150 Pm Molecular/Cellular	5	BIO 1115 Biology : Cell & Molecular	5	GE3N

Interdisciplinary Computing-Astronomy:

KU Course Requirements

Independence Equivalents

MATHEMATICS				Core
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		
MATH 220 Differential Equations	3	No equivalent		

NATURAL SCIENCES				Core
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	PHS 2065 Engineering Physics 2	5	GE3N
ASTR 191 Contemporary Astronomy	3	PHS 1085 Descriptive Astronomy	4	GE3N

Interdisciplinary Computing-Biology:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		

NATURAL SCIENCES				Core
CHEM 130 Chemistry	5	PHS 1025 College Chemistry	5	GE3N, GE12
CHEM 135 Chemistry 2	5	PHS 1035 College Chemistry 2	5	GE3N, GE12
BIOL 150 Prn Molecular/Cellular	5	BIO 1115 Biology : Cell & Molecular	5	GE3N
BIOL 152 Princ of Organismal Biology	5	BIO 2115 Biology: Organismal Biology	5	GE3N

ETHICS				Core
PHIL 160 Intro to Ethics	3	SOC 1073 Ethics	3	AE51, GE11, GE3H

Interdisciplinary Computing-Chemistry:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		
MATH 220 Differential Equations	3	No equivalent		

NATURAL SCIENCES				Core
CHEM 130 Chemistry	5	PHS 1025 College Chemistry	5	GE3N, GE12
CHEM 135 Chemistry 2	5	PHS 1035 College Chemistry 2	5	GE3N, GE12
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	PHS 2065 Engineering Physics 2	5	GE3N
CHEM 330 & 331 Organic Chemistry	5	PHS 2025 Organic Chemistry 1	5	

Interdisciplinary Computing-Geography:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core
MATH 125 Calculus	4	MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4	MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4	MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		

NATURAL SCIENCES				Core
PHSX 211 & 216 Engineering Physics	5	PHS 2055 Engineering Physics	5	GE3N, GE11, GE12

Interdisciplinary Computing-Physics:

KU Course Requirements

Independence Equivalent

MATHEMATICS				Core
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MATH 125 Calculus	4		MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4		MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4		MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 220 Differential Equations	3		No equivalent		
MATH 290 Elementary Linear Algebra	2		No equivalent		

NATURAL SCIENCES					Core
PHSX 211 & 216 Engineering Physics	5		PHS 2055 Engineering Physics	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		PHS 2065 Engineering Physics 2	5	GE3N

Interdisciplinary Computing-Journalism:

KU Course Requirements

Independence Equivalents

MATHEMATICS					Core
MATH 125 Calculus	4		MAT 1055 Analytic Geometry & Calculus	5	GE12
MATH 126 Calculus 2	4		MAT 2025 Analytic Geometry & Calculus 2	5	
MATH 127 Calculus 3	4		MAT 2033 Analytic Geometry & Calculus 3	3	
MATH 290 Elementary Linear Algebra	2		No equivalent		

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

Independence Equivalents

Goal 1: Critical Thinking and Quantitative Literacy (1 Unit from each outcome)					
Only Interdisciplinary Computing (Geography and Journalism needs to take one of these courses)					
Outcome 1			GE11		
ENGL 211 Intro to Drama	3		ENG 2043 Intro Dramatic Literature		3
PHIL 140 Intro to Philosophy	3		SOC 2003 Intro To Philosophy		3
PHIL 148 Reason and Argument	3		SOC 2073 Logic and Classical Reasoning		3
PHIL 160 Intro to Ethics	3		SOC 1073 Ethics		3
SOC 104 Elements of Sociology	3		SOC 1003 Sociology		3
SOC 160 Social Problems/ American Values	3		SOC 2023 Social Problems		3
PHSX 114 College Physics I	4		PHS 1055 General Physics		5
PHSX 211 General Physics I	4		PHS 2055 Engineering Physics		5

Goal 2: Communication (3 Units) -two from outcome 1 and one from outcome 2					
Outcome 1			GE21		
ENGL 101 Composition	3		ENG 1003 English Composition		3
ENGL 101 Composition	3		ENG 1005 English Composition		3
ENGL 102 Critical Reading and Writing	3		ENG 1013 English Composition 2		3
ENGL 211 Intro to Drama	3		ENG 2043 Intro Dramatic Literature		3
Outcome 2			GE22		
COMS 130 Speaker-Audience Communication	3		COM 1203 Speech		3

Goal 3: Breadth of Knowledge (3 Units) -one from each category					
Arts & Humanities			GE3H		
ANTH 110 Intro to Archaeology	3		SOC 1053 Intro to Archaeology		3
HIST 121 Modern Latin America	3		SOC 2083 Modern Latin America		3
ART 101 Drawing I	3		AED 1023 Drawing and Composition		3
HA 100 Intro to Western Art History	3		AED 1043 Art Appreciation		3
PHMD 101 Fundamentals of Photography	3		COM 1403 Photo I		3
			ENG 1083 American Literature		3
			ENG 2113 American Literature 2		3
			ENG 2083 Contemporary Dramatic Literature		3
			ENG 2073 Introduction to Modern Novel		3

		ENG 2123 British Literature	3
		ENG 2133 British Literature 2	3
		ENG 2143 Survey of Black Literature	3
		ENG 2163 Inge and Contemporary Playwrights	3
ENGL 211 Intro to Drama	3	ENG 2043 Intro Dramatic Literature	3
REL 104 Intro to Religious Studies	3	REL 1000 World Religions	3
		REL 1003 Old Testament History	3
		REL 1013 New Testament History	3
PHIL 140 Intro to Philosophy	3	SOC 2003 Intro To Philosophy	3
PHIL 148 Reason and Argument	3	SOC 2073 Logic and Classical Reasoning	3
PHIL 160 Intro to Ethics	3	SOC 1073 Ethics	3
THR 100 Intro to Theatre	3	THR 1013 Theatre Appreciation	3
THR 106 Intro to Acting	3	THR 1023 Introduction to Acting	3
HIST 128 Hist US thrgh Civil War	3	HIS 1023 United States History (1850-1930)	3
HIST 129 Hist of US After Civil War	3	HIS 1063 United States Hist (Contemp)	3
		HIS 1003 History of Early Civilization	3
		HIS 1013 History of Modern Civilization	3
HSES 244 Intro Phys Ed and Sport Studies	3	PED 1713 Intro to Physical Education	3
Social Sciences		GE3S	
EPSY S305 Dev and Learning of Young Child	3	BEH 1013 Child Psychology	3
		POL 1013 Intro to Political Science	3
COMS 244 Intr Personal Comm	3	COM 1233 Interpersonal Communication	3
ECON 142 Princ of Microeconomics	3	BUS 2023 Microeconomics	3
ECON 144 Princ of Macroeconomics	3	BUS 2033 Macroeconomics	3
POLS 110 Intro to US Politics	3	POL 1023 American Government	3
PSYC 104 General Psychology	3	BEH 1003 General Psychology	3
		BEH 2003 Developmental Psychology	3
SOC 104 Elements of Sociology	3	SOC 1003 Introduction to Sociology	3
SOC 220 Sociology of Families	3	SOC 1013 Sociology of Families	3
ANTH 100 General Anthropology	3	SOC 1023 Anthropology	3
SW 220 Social Work, Soc Welfare and US society	3	SOC 1213 Intro to Social Work	3
POLS 170 Intro to International Politics	3	POL 1043 International Politics	3

Goal 4: Culture and Diversity (1 Unit from each outcome)			
Outcome 1		AE41	
SOC 160 Intro to Social Problems	3	SOC 2023 Social Problems	3
SOC 104 Elements of Sociology	3	SOC 1003 Introduction to Sociology	3
SOC 220 Sociology of Families	3	SOC 1013 Sociology of Families	3
AAAS 106 Black Experience in Americas	3	HIST 1163 African American History	3
		ENG 2143 Survey of Black Literature	3
Outcome 2		AE42	
HA 100 Intro to Western Art History	3	AED 1043 Art Appreciation	3
		HIS 1003 History of Early Civilization	3
ANTH 100 General Anthropology	3	SOC 1023 Anthropology	3
REL 104 Intro to Religious Studies	3	REL 1000 World Religions	3
GEOG 100 World Regional Geography	3	SOC 2013 World Regional Geography	3
SPAN 212 Intermediate Spanish	3	FRL 2035 Spanish 3	5
SPAN 216 Intermediate Spanish 2	3	FRL 2043 Spanish 4	3
POLS 170 Intro to International Politics	3	POL 1043 International Politics	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