

Butler 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 3.0 GPA and proof of competency in calculus.

Requirements (all students):

Computer Engineering:

KU Course Requirements

Butler Equivalents

MATHEMATICS					Core
MATH 125 Calculus	4		MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	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		EC 200 Principles of Microeconomics	3	GE3S
ECON 144 Princ of Macroeconomics	3		EC 201 Principles of 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		PH 251 Physics I	5	GE3N, GE11, GE12
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Computer Science:

KU Course Requirements

Butler Equivalents

MATHEMATICS					Core
MATH 125 Calculus	4		MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	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		PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		PH 252 Physics II		GE3N
Choose One:					
CHEM 130 Chemistry	5		CH 110 College Chemistry	5	GE12, GE3N
CHEM 135 Chemistry 2	5		CH 115 College Chemistry 2	5	GE12, GE3N
GEOG 104 & 105 Princ Physic Geography			SC 120 Principles of Geography (lab must be taken at KU)	5	GE3N
GEOL 101 How the World Works	3		PS 102 Physical Geology	5	GE3N

Electrical Engineering:

KU Course Requirements**Butler Equivalents**

MATHEMATICS					Core
MATH 125 Calculus	4		MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	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		EC 200 Principles of Microeconomics	3	GE3S
ECON 144 Princ of Macroeconomics	3		EC 201 Principles of 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		PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		PH 252 Physics II	5	GE3N
CHEM 130 Chemistry	5		CH 110 College Chemistry	5	GE12, GE3N

Information Technology:**KU Course Requirements****Butler Equivalents**

MATHEMATICS					Core
MATH 101 College Algebra	3		MA 131 College Algebra	5	GE12
OR					
MATH 104 Precalculus Mathematics	5		MA 145 Precalculus Math	5	GE12
MATH S365 Elementary Statistics	3		MA 210 Statistics	3	GE12

ECONOMICS & electives					Core
ECON 104 Intro to Economics	3		No equivalent		GE3S
ENGL 362 Technical Writing	3		EG 112 Technical Writing	3	

NATURAL SCIENCES-Choose one					Core
PHSX 211 & 216 Engineering Physics	5		PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 114 College Physics	5		PH 130 General Physics	5	GE3N, GE11, GE12
CHEM 130 Chemistry	5		CH 110 College Chemistry	5	GE12, GE3N
BIOL 150 Prn Molecular/Cellular	5		No equivalent		GE3N

Interdisciplinary Computing-Astronomy:**KU Course Requirements****Butler Equivalents**

MATHEMATICS					Core
MATH 125 Calculus	4		MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	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		PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		PH 252 Physics II	5	GE3N
ASTR 191 Contemporary Astronomy	3		PH 103 Descriptive Astronomy	4	GE3N

Interdisciplinary Computing-Biology:

KU Course Requirements**Butler Equivalents**

MATHEMATICS				Core
MATH 125 Calculus	4	MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4	MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4	MA 253 Calculus & Analytic Geometry	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		

NATURAL SCIENCES				Core
CHEM 130 Chemistry	5	CH 110 College Chemistry	5	GE3N, GE12
CHEM 135 Chemistry 2	5	CH 115 College Chemistry 2	5	GE3N, GE12
BIOL 150 Prn Molecular/Cellular	5	No equivalent		GE3N
BIOL 152 Princ of Organismal Biology	5	No equivalent		GE3N

ETHICS				Core
PHIL 160 Intro to Ethics	3	PL 291 Ethics	3	AE51, GE11, GE3H

Interdisciplinary Computing-Chemistry:**KU Course Requirements****Butler Equivalents**

MATHEMATICS				Core
MATH 125 Calculus	4	MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4	MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4	MA 253 Calculus & Analytic Geometry	3	
MATH 290 Elementary Linear Algebra	2	No equivalent		
MATH 220 Differential Equations	3	No equivalent		

NATURAL SCIENCES				Core
CHEM 130 Chemistry	5	CH 110 College Chemistry	5	GE3N, GE12
CHEM 135 Chemistry 2	5	CH 115 College Chemistry 2	5	GE3N, GE12
PHSX 211 & 216 Engineering Physics	5	PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4	PH 252 Physics II	5	GE3N
CHEM 330 & 331 Organic Chemistry	5	CH 240 Organic Chemistry 1	5	

Interdisciplinary Computing-Geography:**KU Course Requirements****Butler Equivalents**

MATHEMATICS				Core
MATH 121 Calculus I	5	MA 152 Calculus	5	GE12
MATH 122 Calculus 2	5	MA 253 Calculus 2 (must take MA 151+152+253)	5	
MATH 223 Linear Algebra	3	No equivalent		
MATH 290 Elementary Linear Algebra	2	No equivalent		

NATURAL SCIENCES				Core
PHSX 211 & 216 Engineering Physics	5	PH 251 Physics I	5	GE3N, GE11, GE12

Interdisciplinary Computing-Physics:**KU Course Requirements****Butler Equivalents**

MATHEMATICS				Core
MATH 125 Calculus	4	MA 151 Calculus & Analytic Geometry	5	GE12

MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	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		PH 251 Physics I	5	GE3N, GE11, GE12
PHSX 212 & 236 Engineering Physics	4		PH 252 Physics II	5	GE3N

Interdisciplinary Computing-Journalism:

KU Course Requirements

Butler Equivalents

MATHEMATICS					Core
MATH 125 Calculus	4		MA 151 Calculus & Analytic Geometry	5	GE12
MATH 126 Calculus 2	4		MA 152 Calculus & Analytic Geometry	5	
MATH 127 Calculus 3	4		MA 253 Calculus & Analytic Geometry	3	
MATH 290 Elementary Linear Algebra	2		No equivalent		

Engineering Courses:					Core
EECS 140 Intro to Digital Logic Design	4		No equivalent		
EECS 168 Programming	4		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

Butler Equivalents

Goal 1: Critical Thinking and Quantitative Literacy (1 Unit from each outcome)					
Outcome 1			GE11		
Only Interdisciplinary Computing (Geography and Journalism needs to take one of these courses)					
ENGL 210 Intro to Poetry	3		LT 204 Intro to Poetry		3
PHIL 140 Intro to Philosophy	3		PL 290 Philosophy		3
PHIL 148 Reason and Argument	3		PL 101 Intro to Logic		3
PHIL 160 Ethics	3		PL 291 Ethics		3
BLAW 301 Legal Aspects of Business	3		BA 115 Business 115		3
PHSX 114 College Physics	4		PH 143 General Physics		5
PHSX 211/216 General Physics I	4		PH 251 Physics		5
SOC 104 Elements of Sociology	3		BS 105 Sociology		3
SOC 160 Social Problems and American Values	3		BS 110 Contemporary Social Problems		3

Goal 2: Communication (3 Units) -two from outcome 1 and one from outcome 2					
Outcome 1			GE21		
ENGL 101 Composition	3		EG 101 English Composition		3
ENGL 101 Composition	3		EG 100 English Composition with Review		5
ENGL 102 Critical Reading and Writing	3		EG 102 English Composition 2		3
ENGL 210 Intro to Poetry	3		LT 204 Intro to Poetry		3
Outcome 2			GE22		
COMS 130 Speaker-Audience Communication	3		SP 100 Public Speaking		3

Goal 3: Breadth of Knowledge (3 Units) -one from each category					
Arts & Humanities			GE3H		
ENGL 210 Intro to Poetry	3		LT 204 Intro to Poetry		3
			LT 205 Intro to the Short Story		3
			LT 211 British Literature I		3
			LT 212 British Literature II		3
			LT 215 American Literature I		3

		LT 216 American Literature II	3
		LT 218 Shakespeare	3
ART 101 Drawing I	3	AR 141 Drawing and Composition	3
		AR 100 Art Appreciation	3
HIST 128 History of the US through the Civil War	3	HS 131 U.S. History I	3
HIST 129 History of the US after the Civil War	3	HS 132 U.S. History II	3
		HS 201 History of World Civilization	3
		HS 202 History of World Civilization II	3
		RG 190 New Testament	3
		RG 191 Old Testament	3
REL 104 Intro to Religious Studies	3	RG 210 Comparative Religions	3
PHIL 140 Intro to Philosophy	3	PL 290 Philosophy	3
PHIL 148 Reason and Argument	3	PL 101 Intro to Logic	3
PHIL 160 Ethics	3	PL 291 Ethics	3
THR 100 Intro to the Theater	3	TA 206 Intro to Theater Art	3
THR 106 Intro to Acting	3	TA 110 Acting	3
		TA 120 Film Appreciation: American Cinema	3
HSES 244 Intro PE and Sports Science	3	PE 120 Intro to Physical Education	3
PHMD 101 Fund of Photography	3	MC 100 Photography I	3
Social Sciences		GE3S	
PRE 305 Development/Learning of the Child	3	BS 270 Child Psychology	3
METL 211 Intro to Jewelry	3	AR 118 Jewelry Design	3
COMS 244 Intr Personal Comm	3	SP 102 Interpersonal Communication	3
ECON 142 Princ of Microeconomics	3	EC 200 Principles of Microeconomics	3
ECON 144 Princ of Macroeconomics	3	EC 201 Principles of Macroeconomics	3
POLS 110 Intro to US Politics	3	PO 141 American Federal Government	3
POLS 170 Intro to International Politics	3	PO 201 International Relations	3
PSYC 104 General Psychology	3	BS 160 General Psychology	3
SOC 104 Elements of Sociology	3	BS 105 Sociology	3
ANTH 100 General Anthropology	3	BS 106 Intro to Anthropology	3
		BS 260 Developmental Psychology	3
BLAW 301 Legal Aspects of Business		BA 115 Business Law	3
JOUR 101 Media and Society	3	MC 161 Intro to Mass Communication	3

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

Outcome 1		AE41	
SOC 104 Elements of Sociology	3	BS 105 Sociology	3
SOC 160 Social Problems and American Values	3	BS 110 Contemporary Social Problems	3
Outcome 2		AE42	
REL 104 Intro to Religious Studies	3	RG 210 Comparative Religions	3
POLS 170 Intro to International Politics	3	PO 201 International Relations	3
		RG 210 Comparative Religion	3
SPAN 212 Intermediate Spanish	3	FL 201 Intermediate Spanish	3
GERM 104 Elementary German I	4	FL 117 Intro to German 2	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