

University of Missouri

Bachelor of Science in Computer Engineering

Transfer Guide for East Central College

This plan is intended only as a general guide based on requirements in the 2013-2014 University of Missouri undergraduate catalog. Check the following web sites for current course descriptions, prerequisites, course equivalencies and other specific details about the Computer Engineering major:

- 1) College Catalog (<http://registrar.missouri.edu/>)
- 2) Transfer Equivalencies (<http://transfercourses.missouri.edu>)
- 3) General Education (<http://generaleducation.missouri.edu>)
- 4) Electrical Engineering (<http://engineering.missouri.edu/ece/degree-programs/>)

For more information, contact the Department of Electrical and Computer Engineering at 573-882-2648 or Beattyt@missouri.edu.

University of Missouri		East Central College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
Mathematics (22 credits)		
MATH 1500 Analytic Geometry and Calculus I	5	MT 1605 Analy Geom & Calc I (5)
MATH 1700 Calculus II	5	MT 2105 Analy Geom & Calc II (5)
MATH 2300 Calculus III	3	MT 2205 Analy Geom & Calc III (5)
MATH 4100 Differential Equations	3	MT 2303 Differential Equations (3)
STAT 4710 Intro to Mathematical Statistics	3	None
Math 2320 Discrete Mathematical Structures	3	None
Physics and Chemistry (14 credits)		
CHEM 1320 College Chemistry I	4	CH 1305 Gen Chemistry I Lec & Lab (5)
PHYSCS 2750 University Physics I	5	PH 2103 & PH 2112 Gen Physics I (5)
PHYSCS 2760 University Physics II	5	PH 2203 & PH 2212 Gen Physics II (5)
English Exposition and Argumentation (3 credits)		
ENGLISH 1000 Exposition and Argumentation	3	EN 1333 English Comp II (3)
Behavioral & Social Science (9 credits) Courses from at least two different departments.		
State Requirement in Government or History	3	Select state requirement from the general education list.
Social or Behavioral Science Elective	3	Select social or behavioral sciences from the general education list.
Social or Behavioral Science Elective	3	
Humanities/Fine Arts (Option 1 – Conventional Track) (9 credits) ▪ Only one humanities/fine arts track (Conventional or Foreign Language) must be completed ▪ Courses from at least two different departments ▪ A maximum of 3 credit hours for skills classes ▪ No foreign language courses may be used for this option		
Humanity 1	3	Select humanities from the general education list.
Humanity 2	3	
Humanity 3	3	
Humanities/Fine Arts (Option 2 - Foreign Language Track) (12 credits) ▪ Only one humanities/fine arts track (Conventional or Foreign Language) must be completed ▪ Minimum of 12 college transcribed hours in a single foreign language ▪ Satisfies the 2000-level requirement		
Foreign Language 1	5	Select foreign language courses from the general education list.
Foreign Language 2	5	
Foreign Language 3	3	
Upper Level General Education (3 credits)		
At least 3 credit hours of behavioral science, social science or humanity must be at the 2000-level or above		
☒ Upper-level general education courses may also count toward behavioral sciences, social sciences, or humanities.		
Upper Level Course	3	Select 200/2000-level behavioral science, social science, or humanity from the general education list. Level is based upon the community college course number, NOT the MU equivalent.
Writing Intensive (6 credits)		
Writing intensive course (humanity, social or behavioral science or technical elective)	3	Must be taken at MU
ECE 4970 Capstone Design	3	Must be taken at MU
Engineering (59 credits)		
CS 1050 Algorithm Design and Programming	3	None
CS 2050 Algorithm Design and Programming II	3	None
Select one of the following:		
ENGINR 1200 Statics and Elementary Strength of Materials ENGINR 2300 Engineering Thermodynamics IMSE 2710 Engineering Economic Analysis	3	EG 2003 Engin Mech-Statics (3)
ECE 1000 Intro to Electrical and Computer Engineering	2	None
ECE 1210 Intro to Logic Systems	3	None

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COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
ECE 2100 Circuit Theory I	4	None
ECE 3210 Microprocessor Engineering	4	None
ECE 3220 Computing for Embedded Systems	3	None
ECE 3810 Circuit Theory II	4	None
ECE 3410 Electronic Circuits and Signals I	4	None
ECE 3830 Signals and Linear Systems	3	None
ECE 4220 Real Time Embedded Systems	3	None
ECE 4250 VHDL and Programmable Logic Devices	4	None
ECE 4270 Microcomputer Architecture and Interfacing	4	None
ECE 3110 Electrical and Computer Engineering Projects	3	None
ECE 4970 Senior Capstone Design(<i>Writing Intensive</i>)	3	None
Technical Elective (9 credits)		
ECE or CS 3000+ or Math, Physics, Chemistry, BioE, ChemE, Civil, IMSE, MAE Engr.2000+	9	None
ECE Electives (6 credits)		
ECE Electives (4000+)	6	None
Free Electives (1 credit)		
Total Hours for BS in Computer Engineering	126	

General Education Courses

East Central College

<u>East Central College Course</u>	<u>MU Equivalent</u>	<u>East Central College Course</u>	<u>MU Equivalent</u>
Behavioral Sciences		Social Sciences (◆= State Requirement)	
AN 1003 Intro to Cult Anthro (3)	ANTHRO 2030	BU 1043 Prin of Finance (3)	FINANC 1000
AN 1103 Intro Phy Anth & Arch (3)	ANTHRO BEH	CV 1003 American Civilization (3)	HIST SSC
PY 1103 Gen Psychology (3)	PSYCH 1000	CV 2103 European Civil I (3)	HIST 1500
PY 2103 Pers & Social Adjust (3)	PSYCH BEH	CV 2203 European Civil II (3)	HIST 1510
PY 2203 Child Psychology (3)	PSYCH 2410	CV 2303 Latin Amer Civil (3)	HIST 1850
PY 2213 Abnormal Psychology (3)	PSYCH 2510	CV 2613 East Asian Civ to 1800 (3)	HIST SSC
PY 2303 Social Psychology (3)	PSYCH 2310	CV 2623 East Asian Civ Since 1800 (3)	HIST 1830
PY 2403 Human Development (3)	PSYCH BEH	EC 2103 Prin of Macroecon (3)	ECONOM 1015
PY 2503 Adolescent Psych (3)	PSYCH BEH	EC 2203 Prin of Microecon (3)	ECONOM 1014
SO 1103 Gen Sociology (3)	SOCIO 1000	GE 1003 World Geography (3)	GEOG SSC
SO 2103 Human Relations (3)	SOCIO 3310	◆HI 1001 US & State Constitution Competency (1)	POL SC SSCST
SO 2203 Marriage & Family (3)	SOCIO 3420	◆HI 1103 US Hist to 1865 (3)	HIST 1100
		◆HI 1203 US Hist 1865-1945 (3)	HIST 1200
		HI 1303 US Hist 1945-Present (3)	HIST SSC
		HI 1403 MO & Miss Valley Hist (3)	HIST SSC
		HI 2802 Heritage Studies Lec (3)	HIST SSC
		HI 2903 World Since 1945 (3)	HIST SSC
		◆PS 1103 Intro Political Sci (3)	POL_SC 1700
		◆PS 1203 US Govt I: Natl & St (3)	POL_SC 1100
		◆PS 1303 State and Local Government (3)	POL_SC 2100
		PS 2103 Internat Relations (3)	POL_SC 1400
		SO 1203 Amer Social Prob (3)	SOCIO 3010
Humanities		Foreign Language	
AR 1203 Art Appreciation I (3)	ART_GNR1020	AB 1104 Elem Standard Arabic I (4)	ARABIC 1100A
AR 1703 Art History I (3)	AR_H_A 1110	AB 1204 Elem Standard Arabic II (4)	ARABIC 1100B
AR 1713 Art History II (3)	AR_H_A 1120	FR 1104 Elem French I (4)	FRENCH 1100
CT 1033 Intro to Mass Comm (3)	COMMUN 2100	FR 1204 Elem French II (4)	FRENCH 1200
CT 1103 Public Speaking (3)	COMMUN 1200	FR 2104 Interm French I (4)	FRENCH 2100
CT 1303 Theatre Appreciation (3)	THEATR 1100	GR 1003 Beg German I (3)	GERMAN 1100A
CT 1403 Beginning Acting (3)	THEATR 1400	GR 1103 Elem German I (3)	GERMAN 1100A
CV 2023 Islamic Civilization (3)	REL_ST 2700	GR 1104 Elem German I (4)	GERMAN 1100
CV 2603 Japanese Civil (3)	JAPNSE 2320	GR 1203 Elem German II (3)	GERMAN 1100B
EN 1413 World Lit I (3)	ENGLISH LIT	GR 1204 Elem German II (4)	GERMAN 1200
EN 1423 World Lit II (3)	ENGLISH LIT	GR 2113 Interm German I (3)	GERMAN 1100B
EN 1503 Poetry (3)	ENGLISH LIT	GR 2114 Interm German I (4)	GERMAN 2100
EN 1603 Fiction (3)	ENGLISH LIT	SP 1104 Elem Spanish I (4)	SPAN 1100
EN 1613 World Fiction (3)	ENGLISH LIT	SP 1204 Elem Spanish II (4)	SPAN 1200
EN 1703 Drama as Lit (3)	ENGLISH LIT	SP 2114 Interm Spanish I (4)	SPAN 2100
EN 1803 Art of the Novel (3)	ENGLISH LIT		
EN 1813 Fiction into Film (3)	ENGLISH 2870		
EN 1903 Classical Mythology (3)	CL_HUM 1060		
EN 2033 Lit for Children (3)	ENGLISH LIT		
EN 2103 Survey Brit Lit: Beg 1784 (3)	ENGLISH 2200		
EN 2113 Sur Brit Lit: Romntcsm-Pr (3)	ENGLISH 2200		
EN 2203 Sur Amer Lit: Colnl-1865 (3)	ENGLISH 2300		
EN 2213 Surv Amer Lit: 1865-Pres (3)	ENGLISH 2300		
EN 2223 Lit of Mystery (3)	ENGLISH 2150		
EN 2303 Latino/a Literature (3)	ENGLISH 2000		
EN 2323 Women's Literature	ENGLISH 2180		
EN 2403 Lit of Fantasy (3)	ENGLISH 2150		
EN 2503 Lit of Sci Fict (3)	ENGLISH 2150		
EN 2603 Introduction to Shakespeare (3)	ENGLISH 2160		
MU 1503 World Music (3)	MUSIC_N1313		
MU 1603 Music Appreciation (3)	MUSIC_N1310		
PR 1003 Intro Philosophy (3)	PHIL 1000		
PR 1203 Hist of Mod Phil (3)	PHIL 3200		
PR 1303 Living World Religions (3)	REL_ST 2110		
PR 2103 Cont Ethical Prob (3)	PHIL 1100		
PR 2403 Biblical Lit I: Old Test (3)	REL_ST HUM		
PR 2503 Bibl Lit II: Old Test (3)	REL_ST 2500		
PR 2603 Bibl Lit III: New Test (3)	REL_ST 2510		