University of Missouri
Bachelor of Science in Computer Engineering
Transfer Guide for North Central Missouri 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		North Central Missouri College	
COURSE	**CREDITS**	**EQUIVALENT COURSE (CREDITS)**	
Mathematics *(22 credits)*			
MATH 1500 Analytic Geometry and Calculus I	5	MT 150 Geom & Calc I (5)	
MATH 1700 Calculus II	5	MT 250 Geom & Calc II (5)	
MATH 2300 Calculus III	3	MT 260 Geom & Calc III (5)	
MATH 4100 Differential Equations	3	None	
STAT 4710 Intro to Mathematical Statistics	3	None	
Math 2320 Discrete Mathematical Structures	3	MT 222 Discrete Math (MRP) (4)	
Physics and Chemistry *(14 credits)*			
CHEM 1320 College Chemistry I	4	CH 110 Gen Chemistry I (5)	
PHYSCS 2750 University Physics I	5	PS 210 Gen Physics I (5)	
PHYSCS 2760 University Physics II	5	PS 212 Gen Physics II (5)	
English Exposition and Argumentation *(3 credits)*			
ENGLSH 1000 Exposition and Argumentation	3	EN 102 English 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 transcripted 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	None	
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*(Writing Intensive)*	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
North Central Missouri College

North Central Missouri College Course	MU Equivalent	North Central Missouri College Course	MU Equivalent
Behavioral Sciences		**Social Sciences (◆=State Requirement)**	
PY 121 Gen Psychology (3)	PSYCH 1000	AG 148 Agric Sales	AG EC 2223
PY 214 Social Psych (3)	PSYCH 2310	BA 103 Consumer Finance (3)	FINPLN 2183
PY 219 Adult Dev & Aging (2)	PSYCH BEH	EC 223 Agric Econ (3)	AG_EC 1041
PY 225 Child Psych (3)	PSYCH 2410	EC 252 Microeconomics (3)	ECONOM 1014
PY 226 Adolescent Psych (3)	PSYCH BEH	EC 253 Macroeconomics (3)	ECONOM 1015
PY 230 Abnormal Psych (3)	PSYCH 2510	GE 106 Intro World Geog (3)	GEOG SSC
PY 233 Human Growth & Dev (3)	PSYCH BEH	HI 101 West Civ to 1700 (3)	HIST 1500
PY 245 Adv Gen Psych (3)	PSYCH BEH	HI 102 West Civ Since 1700 (3)	HIST 1510
SO 107 Gen Sociology (3)	SOCIOL 1000	◆HI 103 Amer Hist to 1877 (3)	HIST 1100
SO 201 Marriage & the Family (3)	SOCIOL 3420	◆HI 104 Amer Hist Since 1877 (3)	HIST 1200
		PE 220 Intro to Recreation (3)	P_R_TR 1010
Humanities		PL 105 Missouri Constitution (1)	POL_SC SSC
AR 102 Apprec of the Arts (1-3)	ART GNR 1020	◆PL 116 State & Local Govt (3)	POL_SC 2100
AR 104 Art Appreciation (3)	ART_GNR1020	◆PL 216 National Government (3)	POL_SC 1100
EN 196 Lit for Children (3)	ENGLSH LIT	SO 210 Social Problems (3)	SOCIOL 3010
EN 211 Studies in Literature (3)	ENGLSH 1160		
EN 230 English Lit I (3)	ENGLSH 2200	**Foreign Language**	
EN 240 English Lit II (3)	ENGLSH 2200	FL 100 Elem Spanish I (3)	SPAN 1100A
EN 251 World Lit I: Beg to Renaiss (3)	ENGLSH LIT	FL 101 Elem Spanish II (3)	SPAN 1100B
EN 252 World Lit II: Enlight to Pres (3)	ENGLSH LIT	FL 110 Elem German (4)	GERMAN 1100A
EN 261 Amer Lit Before 1865 (3)	ENGLSH 2300	FL 111 Elem Germ II (3)	GERMAN 1100B
EN 262 Amer Lit After 1865 (3)	ENGLSH 2300	FL 120 Elem French I (3)	FRENCH 1100A
EN 280 Intro to Literature (3)	ENGLSH LIT	FL 122 Elem French II (3)	FRENCH 1100B
HU 110 Hum: Pre-Renaiss (3)	MISC HUM		
HU 111 Hum: Renaiss to Pres (3)	MISC HUM		
MU 109 Music Apprec (3)	MUSIC_NHUM		
PH 101 Ethics (3)	PHIL 1100		
PH 102 Intro to Philosophy (3)	PHIL 1000		
RL 101 Intro to Religion (3)	REL_ST 1100		
RL 110 Intro Old Testament (3)	REL_ST 2500		
RL 131 New Testament Survey (3)	REL_ST 2510		
SP 175 Speech Comm (3)	COMMUN 1200		
TH 111 Intro Theatre (3)	THEATR 1100		
TH 113 Begin Acting (2)	THEATR 1400		