

University of Missouri

Bachelor of Science in Computer Engineering

Transfer Guide for Mineral Area College

This plan is intended only as a general guide based on requirements in the 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 degree:

- 1) College Catalog (<http://majors.missouri.edu>)
- 2) Transfer Admission (<http://transfer.missouri.edu>)
- 3) Transfer Equivalencies (<https://www.transferology.com/school/missouri> or <http://transfercourses.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		Mineral Area College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
Mathematics (22 credits)		
MATH 1500 Analytic Geometry and Calculus I	5	MAT 1650 Analy Geom & Calc I (MRP) (5)
MATH 1700 Calculus II	5	MAT 2150 Analy Geom & Calc II (MRP) (5)
MATH 2300 Calculus III	3	MAT 2250 Analy Geom & Calc III (5)
MATH 4100 Differential Equations	3	MAT 2330 Differential Equations (3)
STAT 4710 Intro to Mathematical Statistics	3	No Equivalent
Math 2320 Discrete Mathematical Structures	3	No Equivalent
Physics and Chemistry (14 credits)		
CHEM 1320 College Chemistry I	4	PHS 1350 Gen Chemistry I (5)
PHYSCS 2750 University Physics I	5	PHS 2230 Gen Physics I (4)
PHYSCS 2760 University Physics II	5	PHS 2240 Gen Physics II (4)
English Exposition and Argumentation (3 credits)		
ENGLSH 1000 Exposition and Argumentation	3	ENG 1340 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 on page 3.
Social or Behavioral Science Elective	3	Select social or behavioral sciences from the general education list on page 3.
Social or Behavioral Science Elective	3	Select social or behavioral sciences from the general education list on page 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 on page 3.
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	4	Select foreign language courses from the general education list on page 3.
Foreign Language 2	4	
Foreign Language 3	4	
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 <input checked="" type="checkbox"/> 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 on page 3. 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	4	No Equivalent
CS 2050 Algorithm Design and Programming II	4	No Equivalent
Select one of the following:		
ENGINR 1200 Statics and Elementary Strength of Materials ENGINR 2300 Engineering Thermodynamics IMSE 2710 Engineering Economic Analysis	3	EGN 2130 Eng Mech-Stat (3)
Engr 1000 Intro to Engineering	1	No Equivalent
ECE 1210 Intro to Logic Systems	3	No Equivalent
ECE 2100 Circuit Theory I	4	No Equivalent
ECE 3210 Microprocessor Engineering	4	No Equivalent
ECE 3220 Computing for Embedded Systems	3	No Equivalent

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ECE 3810 Circuit Theory II	4	No Equivalent
ECE 3410 Electronic Circuits and Signals I	4	No Equivalent
ECE 3830 Signals and Linear Systems	3	No Equivalent
ECE 4220 Real Time Embedded Systems	3	No Equivalent
ECE 4250 VHDL and Programmable Logic Devices	4	No Equivalent
ECE 4270 Microcomputer Architecture and Interfacing	4	No Equivalent
ECE 3110 Electrical and Computer Engineering Projects	3	No Equivalent
ECE 4970 Senior Capstone Design(<i>Writing Intensive</i>)	3	No Equivalent
Technical Elective (9 credits)		
ECE or CS 3000+ or Math, Physics, Chemistry, BioE, ChemE, Civil, IMSE, MAE Engr.2000+	9	No Equivalent
ECE Electives (6 credits)		
ECE Electives (4000+)	6	No Equivalent
Total Hours for BS in Computer Engineering	126	

General Education Courses Mineral Area College

Mineral Area College Course	MU Equivalent	Mineral Area College Course	MU Equivalent
Behavioral Sciences			
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EDU 1300 Child Dev (3)	PSYCH 2410	SOC 1130 Gen Sociology (3)	SOCIOL 1000
ENG 1670 Interpers Comm I (3)	COMMUN 3561	SOC 1230 Social Problems (3)	SOCIOL 1650
PSY 1130 Gen Psychology I (3)	PSYCH 1000	SOC 1240 Substance Abuse (3)	SOCIOL BEH
PSY 1140 Gen Psychology II (3)	PSYCH BEH	SOC 1540 Intro Cultural Anthro (3)	ANTHRO 2030
PSY 1160 Applied Psych (3)	PSYCH 1020	SOC 1600 Ethnic & Cult Diff in Am (3)	SOCIOL BEH
PSY 1250 Hum Growth & Devel (3)	PSYCH BEH	SOC 1620 Human Diversity (3)	SOCIOL BEH
PSY 2000 Abnormal Psych (3)	PSYCH 2510		
Humanities			
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ART 1400 History of Western Art (2)	AR_H_A HUM	ENG 2580 Poetry and the Human Experience (3)	ENGLISH LIT
ART 1490 History of Art I (3)	AR_H_A 1110	MFL 1290 Cult of Fren Spkng World (3)	FRENCH 2310
ART 1500 History of Art II (3)	AR_H_A HUM	MFL 2380 Euro/Latin Amer Cult (1)	MISC HUM
ART 1510 History of Art III (3)	AR_H_A HUM	MSC 1201 Music Theo I (3)	MUS_THRY 1220
ART 1530 Intro to Humanities (3)	MISC HUM	MSC 1202 Music Theo II (3)	MUS_THRY 1221
COM 1000 Intro Mass Comm (3)	COMMUN 2100	MSC 1801 Apprec of Music (3)	MUSIC_NM 1310
COM 1060 Intro to Cinema (3)	FILM_S HUM	MSC 1811 Apprec of Jazz (3)	MUSIC_NM 1312
ENG 1440 Public Speaking (3)	COMMUN 1200	MSC 1821 Hist&Form of Rock Music (3)	MUSIC_NM 1311
ENG 1570 Intro Lit: Prose&Poetry (3)	ENGLISH LIT	PHI 1400 Intro to Phil (3)	PHIL 1000
ENG 2330 English Lit I (3)	ENGLISH 2200	PHI 1410 Comparative Religion (3)	REL_ST 2110
ENG 2340 English Lit II (3)	ENGLISH 2200	PHI 1420 Intro to Ethics (3)	PHIL 1100
ENG 2430 American Lit I (3)	ENGLISH 2300	THE 1000 Intro to Theater (3)	THEATR 1100
ENG 2440 American Lit II (3)	ENGLISH 2300	THE 1040 Begin Acting (3)	THEATR 1400
ENG 2500 Multicultural Lit (3)	ENGLISH 2155	THE 1200 Intro Lit: Drama (3)	THEATR 2800
ENG 2530 Young Adult Literature (3)	ENGLISH LIT	THE 2120 World Drama (3)	THEATR 3700
ENG 2560 Creative Nonfiction (3)	ENGLISH LIT		
Social Sciences (◆=State Requirement)			
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BUS 2930 Prin of Macroeconomics (3)	ECONOM 1015	◆HIS 1230 American Hist I (3)	HIST 1100
BUS 2940 Prin of Microeconomics (3)	ECONOM 1014	◆HIS 1240 American Hist II (3)	HIST 1200
EDU 2040 Foundations of Education (3)	LTC 2040	HIS 1350 Directed Stds in Hist-Hon (1)	HIST SSC
GEO 1130 Regional World Geograpy I (3)	GEOG SSC	HIS 1360 Intro Latin Amer Hist (3)	HIST 1850
HIS 1100 World Civ I (3)	HIST SSC	HIS 1520 World Civ II (3)	HIST SSC
HIS 1130 West Civ I (3)	HIST 1500	◆POS 1180 American Political Syst (3)	POL_SC 1100
HIS 1140 West Civ II (3)	HIST 1510	◆POS 1230 Intro to Pol Sc (3)	POL_SC 1700
HIS 1190 Hist of Christianity (3)	HIST 1580		
Foreign Language			
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MFL 1170 Elem French (3)	FRENCH 1100A	MFL 2140 French Reading (3)	FRENCH 2100
MFL 1270 Intermed French (3)	FRENCH 1100B	MFL 2230 Intermediate Spanish I (3)	SPAN 1200
MFL 1370 Elem Spanish (3)	SPAN 1100A	MFL 2250 Intermediate Spanish II (3)	SPAN 2100
MFL 1470 Intermed Spanish (3)	SPAN 1100B	MFL 2350 Adv Germ Gram&Read (3)	GERMAN 1200
MFL 1560 Germ Lang&Cult I (4)	GERMAN 1100	MFL 2460 Germ Lang&Cult II (4)	GERMAN 1200
MFL 2130 French Comp&Conv (3)	FRENCH 1200		