Major Map: BS Electrical & Computer Engineering
Catalog Year: 2011-2012

The following is a sample course of study. It is the Student's responsibility to ensure that all program requirements are met. This guide is not a substitute for academic advisement.

Your path to graduation may vary slightly based on factors such as college credit you earned while in high school, transfer work from other institutions of higher learning and placement in Mathematics. You are responsible for checking prerequisites to any courses.

Course Subject and Title	Hrs.	Pre-req met	Transfer Course Info	Transfer Course	Min Grade if Reqd	Date Completed	Final Grade	Satisfy	Additional Critical Tracking Notes
Fall Semester Year 1: _14_ hours									
ComSt 110, Fun Effect Speaking & List	3	☐		☐	C			☐	
CS 101, Problem Solving & Prog I	3	☐		☐	C			☐	
Constitution Requirement [1]	3	☐		☐	C			☐	
ECE 110, Intro to ECE	1	☐		☐	C			☐	
Engl 110, English I [2]	0	☐		☐	C			☐	
Math 210, Calculus I [3]	4	☐		☐	C			☐	
Spring Semester Year 1: _15_ hours									
CS 201, Problem Solving & Prog II	3	☐		☐	C			☐	
Math 220, Calculus II	4	☐		☐	C			☐	
Phys 240, Physics for Sci & Engr I	5	☐		☐	C			☐	
ME 130 or Hum & Fine Arts elective [4]	3	☐		☐	C			☐	
Summer Semester Year 1 ___ hours									
									Complete WEPT [2]
Fall Semester Year 2: _17_ hours									
CE 211, Engineering Enterprise [5]	3	☐		☐	C			☐	
CS 394R, Applied Probability	3	☐		☐	C			☐	
ECE 241, Applied Engr Analysis I	3	☐		☐	C			☐	
Phys 250, Physics for Sci & Engr II	5	☐		☐	C			☐	
ENGL 225, English Composition II [2]	3	☐		☐	C			☐	
Spring Semester Year 2: _17_ hours									
ME 130 or Hum & Fine Arts elective [4]	3	☐		☐	C			☐	
ECE 226, Logic Design	3	☐		☐	C			☐	
ECE 227, Logic Design Lab	1	☐		☐	C			☐	
ECE 250, Engr Mechanics/Thermo	3	☐		☐	C			☐	
ECE 276, Circuit Theory I	3	☐		☐	C			☐	
ECE 277, Circuit Theory I Lab	1	☐		☐	C			☐	
ECE 341R, Applied Engr Analysis II	3	☐		☐	C			☐	
Summer Semester Year 2: __ hours									
May use summer semester to lighten fall and spring course loads when courses are offered.									
Fall Semester Year 3: _15_ hours									
ECE 228, Intro to Computer Design	3	☐		☐	C			☐	
ECE 229, Intro to Computer Design Lab	1	☐		☐	C			☐	
ECE 330, Electronic Circuits	3	☐		☐	C			☐	
ECE 331, Electronic Circuits Lab	1	☐		☐	C			☐	
ECE 376, Circuit Theory II	2	☐		☐	C			☐	
ECE 377, Circuit Theory II Lab	1	☐		☐	C			☐	
ECE 426, Microcomputer Arch	3	☐		☐	C			☐	
ECE 427, Microcomputer Arch Lab	1	☐		☐	C			☐	
Spring Semester Year 3: _17_ hours									
ECE 302, EM Waves & Fields	4	☐		☐	C			☐	
ECE 380, Signals and Systems	4	☐		☐	C			☐	
ECE 381, Signals and Systems Lab	1	☐		☐	C			☐	
ECE 428R, Embedded Systems	3	☐		☐	C			☐	
ECE 429, Embedded Systems Lab	1	☐		☐	C			☐	
ECE 430, Microelectronic Circuits	3	☐		☐	C			☐	
ECE 431, Microelectronic Circuits Lab	1			☐	C			☐	
Summer Semester Year 3: ___ hours									

Course Subject and Title	Hrs.	Pre-req met	Transfer Course Info	Transfer Course	Min Grade if Reqd	Date Completed	Final Grade	Satisfy	Additional Critical Tracking Notes
Fall Semester Year 4: _14__ hours									
ECE 358/474, Intro Control Sys/Intro Communication Systems[4]	3	☐		☐	C			☐	Apply for graduation
ECE 402WI, Senior Design I	2	☐		☐	C			☐	
ECE 466, Power Systems I	3	☐		☐	C			☐	
ECE 4XX, Senior Area Elective[5]	3	☐		☐	C			☐	
ECE 4XX, Senior Area Elective[5]	3	☐		☐	C			☐	
Spring Semester Year 4: _16__ hours									
BIOL 102 , Biology and Living w/lab[7]	4	☐		☐	C			☐	
CE 311 or SBS, Social Behavioral Science elective[8]	3	☐		☐	C			☐	
ECE 403, Senior Design II	3	☐		☐	C			☐	
ECE 4XX, Senior Area Elective (can be waived if admitted into Fastrack)[6,9]	3	☐		☐	C			☐	
ECE 4XX, Senior Area Elective (can be waived if admitted into Fastrack)[6,9]	3	☐		☐	C			☐	
Total: _126__ hours									

[1]Constitution requirement may be satisfied by taking either HIST 101 or 102 or 306 or POLSC 210

[2] Requirement may be waived if students have an ACT English score of 30; or SAT verbal score of 630; or AP English Lang/Com score of 4.2. Students may take ENGL 225 during the summer to offset a regular semester course load. WEPT or Written English Proficiency Test should be taken following the successful completion of ENGL 225, but must be taken the semester before enrolling in ECE 402WI.

[3] Students must have successfully passed (with a "C" or better) Pre-calculus or a combination of a College Algebra and Trigonometry or have taken four (4) units of high school mathematics including trigonometry. Note: Enrollment is restricted. Students must pass the online Math Entrance Test prior to enrolling. See http://cas.umkc.edu/math/ for more details.

[4]Students may take two Humanities and Fine Arts (HFA) electives or one HFA and one ME 130 course. HFA electives include Art, Communication Studies, Conservatory, English (beyond composition), Foreign Language (not native to student), Philosophy or Theater

[5]Students may select to take either ECON 201 or ECON 202 in place of CE 211.

[6]Students need to select between ECE 358, Intro to Control Systems or ECE 474, Intro to Communications Systems, but only take one.

[7]Three of the four senior electives must be from either the Electrical Engineering or Computer Engineering track. Students may take an additional four courses beyond the bachelor's degree for a special concentration area. Other courses, such as special topics courses, might fall in a concentration area as determined by the ECE - undergraduate curriculum committee. These are a special area grouping of the courses known to be taught on a regular basis. Other courses are available when there is sufficient demand.

[8]Biology 102 may be taken anytime during the student's course of study and is not restricted to the senior year. With permission, students may chose to take Chemistry 211 with its lab instead of Biology 102.

[9]Students may chose to take a Social and Behavioral Science Elective instead of CE 311. SBS electives include: Criminal Justice, Geography, Economics, History, Political Science, Psychology, or Sociology

[10]Qualified students might be able to participate in the Fast-Track Program taking graduate level courses-see graduate advisor.

Non-course requirements   Met
Written English Proficiency Test (WEPT)   ☐
ETS Proficiency Profile (EPP) exam   ☐

The School reserves the right to make changes in courses, degree requirements, and course schedules without notice.

Students are expected to maintain a quality of achievement significantly above minimum UMKC standards for degree work. Individual student progress will be monitored throughout the program. Satisfactory progress is required of all students for retention in the program. Students are expected to maintain academic standards, perform satisfactorily in courses, refrain from academic dishonesty, comply with the established University and teacher education timetables and requirements, and refrain from unethical or unprofessional behavior or behaviors that obstruct the training process or threaten the welfare of the student or others. Other circumstances involving student behavior will be addressed by the faculty on an individual basis.

Graduation Requirements Summary:

Total Hours (125 minimum)	Totals Hrs at UMKC (30 hours min)	Major GPA (2.0 min)	UMKC GPA (2.0 min)

Academic Advisor: _____ Date: _____

Faculty Advisor: _____ Date: _____