



# Major Map: Mechanical Engineering

Catalog Year: \_\_\_\_\_

**STUDENT NAME:** \_\_\_\_\_

**ID #:** \_\_\_\_\_

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.

Course Subject and Title Pre- and Co-requisites are in parenthesis after class listing.	Hrs.	School Code & Semester	Transfer Course	Min. Grade	Substitute Class	Final Grade	Pre-requisites met	Additional Critical Tracking Notes
<b>Fall Semester Year 1: 14 hours</b>								
MATH 210 CALCULUS I	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
CHEM 211/211L GEN CHEM W/LAB	5		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 130 ENGR GRAPHICS W/LAB	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 111 ESSENTIAL ENGINEERING	2		<input type="checkbox"/>	C			<input type="checkbox"/>	
			<input type="checkbox"/>					
<b>Spring Semester Year 1: 15 hours</b>								
MATH 220 CALCULUS II (MATH 210)	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
PHYS 240 ENGINEERING PHYSICS I (Pre-/Co-req MATH 210)	5		<input type="checkbox"/>	C			<input type="checkbox"/>	
ENGL 225 ENGLISH COMPOSITION II	3		<input type="checkbox"/>	C			<input type="checkbox"/>	Can do WEPT after ENGL 225 completed.
COMST 110 FNDMTLS EFF SPKG & LSTNG	3		<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Summer Semester Year 1: hours</b>								
			<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Fall Semester Year 2: 18 hours</b>								
MATH 250 CALCULUS III (MATH 220)	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
PHYS 250 ENGINEERING PHYSICS II (PHYS 240, Pre-/Co-req MATH 220)	5		<input type="checkbox"/>	C			<input type="checkbox"/>	
CE 275 STATICS (PHYS 240, Pre-/Co-req MATH 250)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 219 COMPUTER PROG FOR ENGRS (MATH 210)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
CE 211 THE ENGINEERING ENTERPRISE (ME 111)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
			<input type="checkbox"/>					
<b>Spring Semester Year 2: 16 hours</b>								
MATH 345 ORD DIFFERENTIAL EQS (MATH 250)	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
CE 276 STRENGTH OF MATERIALS (CE 275)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 285 DYNAMICS (CE 275)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 299 THERMODYNAMICS (MATH 220, PHYS 240)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 220 ELECTRIC CIRCUITS (ME 219, PHYS 250, Pre-/Co-req Math 345)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Summer Semester Year 2: hours</b>								
			<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	



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<b>Fall Semester Year 3: 17 hours</b>								
CE 319 ENGR COMPUTATION & STATISTICS (ME 219, MATH 220)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 324 ENGR MATERIALS WITH LAB (CHEM 211/211L, ME 299, CE 276)	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
CE 351 FLUID MECHANICS (ME 285, MATH 345)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 352WI INSTR & MEASUREMENTS LAB I (CE 276, ME 285, MATH 345, ME 220, WEPT PASSED)	4		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 360 THERMAL SYSTEM DESIGN (MATH 250, ME 299, Pre-/Co-req CE 351)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Spring Semester Year 3: 15 hours</b>								
ME 306 COMPUTER AIDED ENGINEERING (MATH 345, CE 319)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 385 SYSTEM DYNAMICS (MATH 345, ME 285)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 362 INSTRU & MEASUREMENTS LAB II (CE 351, ME 352, Pre-/Co-req ME 399)	3		<input type="checkbox"/>				<input type="checkbox"/>	
ME 399 HEAT AND MASS TRANSFER (CE 351, MATH 345, CE 319, Pre-/Co-req ME 306)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
ME 380 MANUFACTURING METHODS (ME 324)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Summer Semester Year 3: ___ hours</b>								
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Fall Semester Year 4: 15 hours</b>								
ME 456 MECH COMPONENT DESIGN (ME 130, ME 324, ME 380)	3		<input type="checkbox"/>	C			<input type="checkbox"/>	Apply for graduation.
ME 415 FEEDBACK CONTROL SYSTEMS (ME 385)	3		<input type="checkbox"/>				<input type="checkbox"/>	
ME 4XX TECHNICAL ELECTIVE* OR ME ESD ENERGY SYS DESIGN REQ** (ME360, ME 399)	3		<input type="checkbox"/>				<input type="checkbox"/>	
CE 311 THE TECHNICAL ENTREPRENEUR (CE 211)	3		<input type="checkbox"/>				<input type="checkbox"/>	
CONST REQ: POLSCI 210, HIST 101/102/360R	3		<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	
<b>Spring Semester Year 4: 16 hours</b>								
ME 496WI MECH DESIGN SYNTHESIS (ME 456, WEPT PASSED)	4		<input type="checkbox"/>				<input type="checkbox"/>	
ME 4XX TECHNICAL ELECTIVE* OR ME ESD ENERGY SYS DESIGN REQ** (ME 360, ME 399)	3		<input type="checkbox"/>				<input type="checkbox"/>	
ME 4XX TECHNICAL ELECTIVE*	3		<input type="checkbox"/>				<input type="checkbox"/>	
ME 4XX TECHNICAL ELECTIVE*	3		<input type="checkbox"/>				<input type="checkbox"/>	
GEN EDUC, 2XX or higher ENGL, COMM ST, PHIL OR FRGN LANG	3		<input type="checkbox"/>				<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	

**\*THREE ME TECHNICAL ELECTIVES REQUIRED AND MUST BE APPROVED BY A FACULTY ADVISOR.**

**\*\*ONE ESD COURSE REQUIRED. ME 451 POWER PLANT DESIGN (FALL) OR ME 440 HVAC (SPRING) FULFILLS THIS REQUIREMENT (PREREQ: ME 360 AND ME 399).**

**Non-course requirements**

Written English Proficiency Test (WEPT)

Educational Testing Service Proficiency Profile (EPP)

Three (3) Applied Skills Electives from the following five:

**Met**

MATE 111A Machine Shop Safety (required)

MATE 111A Lathe

MATE 111A Milling Machine

WELD 100 Welding

**List of School Codes:**

K=UMKC                      R=MS&T (UM Rolla)

M=UM Columbia         S=UMSL (St. Louis)

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_



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STUDENT NAME: \_\_\_\_\_

ID #: \_\_\_\_\_

### Graduation Requirements Summary:

Total Hours (126 minimum)	Totals Hrs at UMKC (30 hours minimum)	Major GPA (2.0 Minimum)	UMKC GPA

All students completing an undergraduate education degree must meet the following conditions in order to graduate and be recommended for graduation or certification:

- **UMKC Exit Exams:** Required for graduation, the Educational Testing Service Proficiency Profile (EPP) is scheduled and administered by Testing Services. Sign up at <http://www.umkc.edu/exitexams/>. If you have any problems with, or questions about, scheduling your exams, please contact [testingservices@umkc.edu](mailto:testingservices@umkc.edu) or call (816) 235-5820.
- **Senior Exit Interview:** You will receive an e-mail to schedule an exit interview with the Department. This is REQUIRED to graduate and will have a survey attached which you should fill out and bring to the exit interview. The interview will take about one hour.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Academic Advisor: \_\_\_\_\_

Date: \_\_\_\_\_

Faculty Advisor/Representative: \_\_\_\_\_

Date: \_\_\_\_\_