



**Transfer Guide-Precalc Start**  
**Associate of Engineering with Core 42**  
**BS-Mechanical Engineering**  
*(entering UMKC Fall 2021 or later)*



MCC—Fall Semester 1	Hrs	MCC—Spring Semester 1	Hrs	MCC—Summer Semester 1	Hrs
CHEM 111 General College Chemistry I	5	ENGL 102 or 215 Comp II or Technical Writing	3		
ENGL 101 Composition & Reading I	3	MATH 180 Analytic Geometry & Calculus I	5		
ENGR 101 Intro to Engineering Profession	1	Core 42 Humanities/Arts Requirement	3		
MATH 150 Precalculus	5	AE History & Social Sciences Course**	3		
AE Humanities Course*	3				

MCC—Fall Semester 2	Hrs	MCC—Spring Semester 2	Hrs	MCC—Summer Semester 2	Hrs
MATH 190 Analytic Geometry & Calculus II	5	ENGR 229 Statics	3		
PHYS 220 Engineering Physics I	5	MATH 210 Analytic Geometry & Calculus III	5		
ENGR 204 Programming for Eng & Sci	3	PHYS 221 Engineering Physics II	5		
COMM 100 Fundamentals of Speech (AE Comm)	3	Core 42 Humanities/Arts Requirement	3		

MCC—Fall Semester 3	Hrs	MCC—Spring Semester 3	Hrs	UMKC—Summer Semester 3	Hrs
ENGR 240 Mechanics of Materials	3	ENGR 223 Thermodynamics & Heat Transfer	4		
MATH 230 Differential Equations	3	ENGR 230 Dynamics	3		
ENGR 215 Engineering Statistics & Computation	3	Core 42 Social/Behavioral Sciences Requirement	3		
AE History and Social Science Course***	3	ENGR 233 Circuit Analysis I	4		
		ENGR 234 Circuit Analysis Lab	1		

UMKC—Fall Semester 4	Hrs	UMKC—Spring Semester 4	Hrs	UMKC—Summer Semester 4	Hrs
ME 324/324L Engineering Materials/Lab	4	ME 130 Engineering Graphics	3		
ME 351 Fluid Mechanics	3	ME 352 Mechanical Instruments Lab	3		
ME 356 Mechanical Component Design	3	ME 380 Manufacturing Methods	3		
ME 360 Applied Thermodynamics	3	ME 385 System Dynamics	3		
		ME 399/399L Heat Transfer/Lab	4		

UMKC—Fall Semester 5	Hrs	UMKC—Spring Semester 5	Hrs	UMKC—Summer Semester 4	Hrs
ME 492 Mechanical Design Synthesis I	3	ME 306 Numerical Analysis	3		
ME 4XX ME Design Elective	3	ME 496WI Mechanical Design Synthesis II	3		
ME 4XX ME Technical Elective	3	ME 4XX ME Technical Elective	3		
ME 4XX ME Technical Elective	3				

\*Acceptable courses include ART 108, ART 150, ART 151, ENGL 214, ENGL 216, ENGL 240, ENGL 254, ENGL 262, HIST 133, HIST 134, MUSI 108, MUSI 160, PHIL 100, THEA 106

\*\*Acceptable courses include HIST 120, HIST 121, POLS 136

\*\*\*Acceptable courses include HIST 120, HIST 121, ECON 210, ECON 211, POLS 136

Students should consult with an academic advisor to be sure that courses for the MDHE Core 42 satisfy the requirements before enrolling.

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