

Transfer Guide Associate of Engineering with Core 42 BS-Mechanical Engineering



| 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 | COMM 100 Fundamentals of Speech (AE Comm) | 3 |
| ENGL 101 Composition & Reading I | 3 | MATH 190 Analytic Geometry & Calculus II | 5 | Core 42 Humanities/Arts Requirement | 3 |
| ENGR 101 Intro to Engineering Profession | 1 | PHYS 220 Engineering Physics I | 5 | AE History and Social Science Course*** | 3 |
| MATH 180 Analytic Geometry & Calculus I | 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 |
|--|-----|---|-----|---------------------------------------|
| ENGR 229 Statics | 3 | ENGR 204 Programming for Eng & Sci | 3 | Core 42 Humanities/Arts Requirement 3 |
| MATH 210 Analytic Geometry & Calculus III | 5 | ENGR 223 Thermodynamics & Heat Transfer | 4 | Core 42 Elective (if needed) 3 |
| PHYS 221 Engineering Physics II | 5 | ENGR 230 Dynamics | 3 | |
| Core 42 Social/Behavioral Sciences Requirement | 3 | ENGR 240 Mechanics of Materials | 3 | |
| | | MATH 230 Differential Equations | 3 | |

| UMKC—Fall Semester 3 | Hrs | UMKC—Spring Semester 3 | Hrs | UMKC—Summer Semester 3 | Hrs |
|--|-----|-----------------------------------|-----|------------------------|-----|
| ME 324 Engineering Materials | 3 | ME 306 Numerical Analysis | 3 | | |
| ME 351 Fluid Mechanics | 3 | ME 352 Mechanical Instruments Lab | 3 | | |
| ME 360 Applied Thermodynamics | 3 | ME 380 Manufacturing Methods | 3 | | |
| ME 130 Engineering Graphics [^] | 3 | ME 385 System Dynamics | 3 | | |
| MATH 300 Linear Algebra I | 3 | ME 399/399L Heat Transfer/Lab | 4 | | |

| UMKC—Fall Semester 4 | Hrs | UMKC—Spring Semester 4 | Hrs | UMKC—Summer Semester 4 | Hrs |
|--------------------------------------|-----|---|-----|------------------------|-----|
| ME 492 Mechanical Design Synthesis I | 3 | ME 496WI Mechanical Design Synthesis II | 3 | | |
| ME 4XX ME Design Elective | 3 | ECE 276 Circuit Theory I [^] | 3 | | |
| ME 4XX ME Technical Elective | 3 | ECE 277 Circuit Theory I Lab^ | 1 | | |
| ME 415 Control Systems Theory | 3 | ME 4XX ME Technical Elective | 3 | | |
| ME 356 Mechanical Component Design | 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 may reverse transfer this course back to MCC to complete the Associate of Engineering degree.

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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