

Dual Degree Program

BS Manufacturing Engineering Technology BS Mechanical Engineering 2025-2026

| MWSU—Fall Semester 1 | Hrs | MWSU—Spring Semester 1 | Hrs | UMKC—Summer Semester 1 | Hrs |
|---|-----|--|-----|---|-----|
| UNV 101 The University Experience | 1 | EGT 215 Computer-Aided Drafting II | 3 | PHYSICS 240 Physics for Sci & Engineers I | 5 |
| EGT 220 Engineering Materials | 3 | MET 101 Electronic Instrumentation for Manufacturing | 3 | MATH 250 Calculus III | 4 |
| EGT 205 Computer Aided Drafting I | 3 | MET 111 Manufacturing Processes | 2 | Humanities & Fine Arts Course | 3 |
| ENG 104 College Writing/Rhetoric | 3 | MET 132 Manufacturing Methods | 3 | | |
| MAT 167 Calculus w/Analytical Geometry I | 5 | MAT 177 Calculus w/Analytical Geometry II | 5 | | |
| MET 100 Electrical Circuits for Manufacturing | 3 | | | | |

| MWSU—Fall Semester 2 | Hrs | MWSU—Spring Semester 2 | Hrs | UMKC—Summer Semester 2 | Hrs |
|--|-----|---|-----|--|-----|
| EGT 265 [^] Engineering Statics | 3 | MET 260 Mechanics of Materials | 4 | PHYSICS 250 Physics for Sci & Engineers II | 5 |
| MET 232 Automated Manufacturing | 2 | MET 325 Machine Parts and Mechanical Design | 3 | MEC-ENGR 285 Engineering Dynamics | 3 |
| MET 242 CNC Machining Processes | 2 | EGT 350 Engineering Documentation | 3 | Social & Behavioral Sciences Course | 3 |
| MET 315 Mechanical Systems | 3 | Constitution Course (History or Pol Sci) | 3 | | |
| COM 104 Oral Communication | 3 | Humanities & Fine Arts Course | 3 | | |
| Social & Behavioral Sciences Course | 3 | | | | |

| MWSU—Fall Semester 3 | Hrs | MWSU—Spring Semester 3 | Hrs | UMKC—Summer Semester 3 | Hrs |
|--|-----|--|-----|---------------------------------|-----|
| ENG 108 or ETC 200 College Writing/Res or Intro to Technical Communication | 3 | EGT 370 Financial Aspects for Engineering Projects | 3 | MATH 345 Differential Equations | 3 |
| MET 452 Automation & Process Control Tech | 4 | EGT 440 Thermodynamics* | 3 | Humanities & Fine Arts Course | 3 |
| MET 462 Production Planning & Control | 3 | MET 422 Electrical Power Technology** | 4 | | |
| CHE 111 General Chemistry I | 5 | MET 322 Adv. Electrical Circuits for Manufacturing | 4 | | |
| CHE 112 Problem Solving for General Chem I | 1 | MET 372 Programmable Logic Controllers | 4 | | |

| UMKC—Fall Semester 4 | Hrs | UMKC—Spring Semester 4 | Hrs | UMKC—Summer Semester 4 | Hrs |
|--------------------------------------|-----|--|-----|------------------------|-----|
| MECH-ENGR 324 Engineering Materials | 3 | MECH-ENGR 306 Numerical Analysis | 3 | | |
| MECH-ENGR 351 Fluid Mechanics** | 3 | MECH-ENGR 352 Mechanical Instrumentation Lab | 3 | | |
| MECH-ENGR 360 Applied Thermodynamics | 3 | MECH-ENGR 380 Manufacturing Methods | 3 | | |
| MECH-ENGR 219 Computer Prog for Eng | 3 | MECH-ENGR 385 System Dynamics | 3 | | |
| MATH 300 Linear Algebra | 3 | MECH-ENGR 399/399L Heat Transfer/Lab | 4 | | |

| UMKC—Fall Semester 5 | Hrs | UMKC Spring Semester 5 | Hrs | UMKC—Summer Semester 5 | Hrs |
|--|-----|--|-----|------------------------|-----|
| MECH-ENGR 356 Mech Component Design | 3 | MECH-ENGR 469WI Mechanical Design Synthesis II | 3 | | |
| MECH-ENGR 415 Control Systems Theory | 3 | E&C-ENGR 276/277 Circuit Theory I/Lab | 4 | | |
| MECH-ENGR 492 Mech Design Synthesis I | 3 | MECH-ENGR Technical Elective (400 level) | 3 | | |
| MECH-ENGR Design Elective (400 level) | 3 | MECH-ENGR Technical Elective (400 level)* | 3 | | |
| MECH-ENGR Technical Elective (400 level) | 3 | | | | |

[^]If EGT 265 is not offered, students must work with MWSU dual degree coordinator to take EGT 260 and complete additional material via independent study.

* Can petition for one upper-level MWSU elective to count as one UMKC MECH-ENGR Technical Elective.

** MECH-ENGR 351 reverse transfers as EGT 356 at MWSU.

PROGRAM NOTE: Dual Degree students are exempt from EGT 490 (Engineering Technology Internship-1CR)

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