COLLEGE OF ENGINEERING & COMPUTER SCIENCE
DEARBORN | UNIVERSITY OF MICHIGAN-DEARBORN

Student Name: _____ ID#:_____

Sample Pathway to BSE in Mechanical Engineering (128 credits) **Fall 2025**

Semester 1	Semester 2	Semester 3
❑ **CHEM 134 + CHEM 134L** (4) *Chemistry I* (MATH 105* or higher, H.S. chemistry) DDC GENS ❑ **ENGR 126 + ENGR 126L** (2) *Engineering Computer Graphics* (MATH 090* or higher) ❑ **MATH 115** (4) *Calculus I* (MATH 105 'C-' or placement) DDC GECT ☐ **DDC course** (3) GEHA	❑ **CHEM 136 + CHEM 136L** (4) *Chemistry II* (CHEM 134) DDC GENS ❑ **ENGR 100 + ENGR 100L** (3) *Intro. To Engineering* (MATH 105* or higher) ❑ **MATH 116** (4) *Calculus II* (MATH 115 'C-') ❑ **ECON 201 or 202** (3) *Macroeconomics or Microeconomics* DDC GESB ❑ **COMP 105** (3) *Writing & Rhetoric I* (COMP 099 or placement) DDC GEWO	❑ **MATH 215** (4) *Calculus III* (MATH 116 'C-') ❑ **PHYS 150 + PHYS 150L** (4) *Physics I* (Math 115*: recommended as prereq) ❑ **ENGR 250 + ENGR 250R** (3) *Engineering Materials* (CHEM 134, Math 115*, CHEM 136*) ❑ **DDC course** (3) *GEHA* ❑ **DDC course** (3) GESB
Semester 4	**Semester 5**	**Semester 6**
❑ **MATH 228** (4) *Diff Eq w/ Linear Algebra* (Math 116 'C-') ❑ **PHYS 151 + PHYS 151L** (4) *Physics II* (PHYS 150, MATH 116*) DDC GENS ❑ **ENGR 216** (2) *Computer Methods* (ENGR 100, ENGR 126*, Math 228*) ❑ **ME 260 + ME 260R** (4) *Design Stress Analysis* (PHYS 150, ENGR 250*, MATH 215*) ❑ **COMP 270** (3) *Technical Writing (Comp 105 or placement, 35 credits complete) DDC GEWO*	❑ **ME 230 + 230R** (4) *Thermodynamics* (PHYS 150, MATH 116, CHEM 134) ❑ **ME 345** (4) *Engineering Dynamics* (MATH 228, ME 260 'C', ENGR 216*) ❑ **ECE 305 + ECE 305L** (4) *Intro. To Electrical Engineering* (PHYS 151, Math 215, MATH 228*) ❑ **ME 364** (3) *Probability, Statistics & Reliability in Machine Design* (ENGR 216,ME 260, Math 228)	❑ **ME 3601** (4) *Design & Analysis of Machine Elements* (ME 260, ENGR 216) ❑ **ME 349 + ME 349L** (3) *Instrumentation & Measurement Systems* (ECE 305, ME 345) ❑ **ME 381 + ME 381L** (4) *Manufacturing Processes I* (ENGR 250 'C', ME 260) ❑ **ME 325** (4) *Thermal Fluid Sciences I* (ME 230 'C', ME 260, ENGR 216) ❑ **DDC course** (3) GESB

* denotes a corequisite course
Courses listed in parentheses () are prerequisites for the listed course

Semester 7	Semester 8	NOTES
❑ **ME 375** (4) *Thermal Fluid Sciences II* (ME 325, ECE 305*) ☐ **ME 442 + ME 442L** (4) *Control Systems Analysis* (ECE 305, ME 345) ☐ **ME design/tech elective** (3-4), ENMD/ENMT (see Notes section for list of design/tech classes) ☐ **ME design/tech elective** (3-4), ENMD/ENMT (see Notes section for list of design/tech classes)	❑ **ME 4671** (4) *Senior Design* (ME 345, ME 3601, ME 375, ME 379*) DDC GEIN, GECE; not offered in Summer ❑ **ME 379** (3) *Thermal-Fluids Lab* (ME 325, COMP 270, ME 349, ME 375*) fulfills DDC GEIN, GEWI ❑ **ME design / tech elective** (3-4), ENMD/ENMT (check individual courses for pre-reqs), see Notes Section ❑ **ME design / tech elective** (3-4), ENMD/ENMT (check individual courses for pre-reqs), See Notes Section ☐ **General Elective** (3-4)	• The sample pathways were created with Fall and Winter semester enrollment in mind. Summer semesters can be used to lessen the workload, and/or participate in co-op or research. • For DDC requirements, please see the University's guidelines • Each student's pathway is unique and may differ slightly from this one • See DDC master list for GESB/GEHA options

NOTES	ME Design/Tech Electives and General Elective	Possible Tracks/Certificates
• Check the ME elective courses' prerequisites, corequisites, course credit and schedule in DegreeWorks, the Undergrad Catalog and Browse Classes. • Please note the opportunity to earn an accelerated MSE through the 4 + 1 program • Admitted 4+1 students can double-count up to 9 credits of 500-level or above Mechanical Engineering elective, core, or cognate courses taken during their junior or senior years.	***16 credits total - Design (ENMD),Tech (ENMT),Gen Electives*** **DESIGN ELECTIVES *(*3-4 credits in min. 1 course)*:** ME 4191 (4), ME 4202 (4), ME 423 (3), ME 4361 (4), ME 440 (3), ME 445 (3), ME 4461 (4), ME 4471 (4), ME 4500 (3), ME 452 (3), ME 460 (3), ME 469 (1-4), ME 472 (4), ME 483 (3), ME 493 (3), ME 490 (1-3), BENG 370 (4), BENG 426 (3) BENG 451 (3), BENG 470 (3), BENG 481 (3), ENGR 360 (4), ENGR 493 (1-3) **UPPER-LEVEL TECH COURSES - ENMT (8-10 credits in min. 2 courses)** ME 410 (3), ME 4301 (3), ME 481 (3), ME 491 (1-3), ME 492 (1-3), ME 496 (2-3), ME 4981 (4), ENGR 345 (3), ENGR 350 (4), ENGR 399 (1), ENGR 492 (1-3), IMSE 421 (3), IMSE 381 (3), BENG 375 (4), BENG 425 (3), BENG 381 (4), ME 4640 (3), ME 4910, ME 4950, ME 4550 (3) **General Elective (Up to 4 credit hrs if needed to bring total Electives to 16, total degree to 128)** *CECS, CASL, or COB courses may be used here. ENT 400 (3) or ENGR 360 (4) or ENGR 400 (3) may be taken to fulfill CECS experiential Honors program*	***Min. 9 credit hours as part of Design/Tech course choices.*** **Energy and Sustainability** ME 4202, ME 423, ME 4301, ME 4361, ME 4471, ME 452, ME 493, ME 496 **Engineering Design** ME 410, ME 4191, ME 4202, ME 423, ME 4301, ME 4361, ME 4471, ME 452, ME 460, ME 469, ME 472, ME 483, ME 493, ME 490, ENGR 360, BENG 451, ME 440, ME 445, ME 4461, BENG 470, BENG 481, ME 4500, ME 4550 **Engineering Mechanics** ME 410, ME 4191, ME 440, ME 445, ME 4461, BENG 370, BENG 470, ME 4550 **Materials and Manufacturing** ME 460, ME 481, ME 483, ENGR 350, BENG 375, ME 4950, ME 4910, ME 4550 **Vehicles and Mobility** ME 410, ME 472, ME 493, ME 496, ME 4981, ME 4910, ME 4500, ME 4550 **Mechatronics and Robotics** ME 440, ME 445, ME 4461, ME 472, IMSE 381, ME 4640

* denotes a corequisite course

Courses listed in parentheses () are prerequisites for the listed course