

Sample Pathway to BSE in Industrial Systems Engineering (128 credits) **Fall 2026**

Semester 1	Semester 2	NOTES
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CHEM 134 + CHEM 134L (4) Chemistry I</b> (MATH 105* or higher, H.S. chemistry)</li> <li><input type="checkbox"/> <b>ENGR 100 + ENGR 100L (3) Intro to Engineering</b> (MATH 105* or higher)</li> <li><input type="checkbox"/> <b>MATH 115 (4) Calculus I</b> (MATH 105 'C-' or placement by exam)</li> <li><input type="checkbox"/> <b>DDC Course (3) GESB</b></li> <li><input type="checkbox"/> <b>COMP 105 (3) Writing Rhetoric</b> DDC GEWO</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CHEM 136 + CHEM 136L (4) Chemistry II</b> (CHEM 134)</li> <li><input type="checkbox"/> <b>ENGR 126 + ENGR 126L (2) Engineering Computer Graphics</b></li> <li><input type="checkbox"/> <b>MATH 116 (4) Calculus II</b> (MATH 115 'C-')</li> <li><input type="checkbox"/> <b>ECON 201 or 202 (3) Macroeconomics or Microeconomics</b> (MATH 105 recommended) DDC GESB</li> <li><input type="checkbox"/> <b>COMP 270 (3) Technical Writing</b> (COMP 105, 35 completed credits) DDC GEWO</li> </ul>	<ul style="list-style-type: none"> <li>● 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.</li> <li>● For DDC requirements, please see the University's <a href="#">guidelines</a></li> <li>● Each student's pathway is unique and may differ slightly from this one</li> </ul>
Semester 3	Semester 4	Focus Area Notes
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>MATH 215 (4) Calculus III</b> (MATH 116 'C-')</li> <li><input type="checkbox"/> <b>PHYS 150 + PHYS 150L (4) Physics I</b> (MATH 115*: recommended as pre-req) DDC GENS</li> <li><input type="checkbox"/> <b>ENGR 250 (3) Engineering Materials</b> (MATH 115*, CHEM 136*)</li> <li><input type="checkbox"/> <b>IMSE 255 (3) C Programming</b> (MATH 105, ENGR 100*) - Fall only</li> <li><input type="checkbox"/> <b>IMSE 317 (3) Engr. Probability Statistics</b> (MATH 116 'C-')</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>MATH 228 (4) Diff. Equations w/ Linear Algebra</b> (MATH 116 'C-')</li> <li><input type="checkbox"/> <b>PHYS 151 + PHYS 151L (4) Physics II</b> (PHYS 150, MATH 116*) DDC GENS</li> <li><input type="checkbox"/> <b>DDC Course (3) GEHA</b></li> <li><input type="checkbox"/> <b>ME 260 (4) Design Stress Analysis</b> (PHYS 150, ENGR 250*, MATH 215*) <b>OR</b> <b>ME 265 (4) Applied Mechanics</b> (PHYS 150, MATH 215*)</li> </ul>	<ul style="list-style-type: none"> <li>● IMSE Focus Area Electives must total at least 8 credits</li> <li>● Focus Area and General Electives must total at least 11 credits.</li> <li>● General Electives can be anything as long as it is not on the <a href="#">no credit list</a></li> </ul>

\* denotes a corequisite course

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

Semester 5	Semester 6	Focus Area Elective Courses
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>IMSE 4425</b> (4) <i>Human Factors &amp; Ergonomics</i> (IMSE 317) - <b>Fall only</b></li> <li><input type="checkbox"/> <b>IMSE 3005</b> (4) <i>Operations Research</i> (MATH 228, IMSE 317*) - <b>Fall only</b></li> <li><input type="checkbox"/> <b>IMSE 382 + IMSE 382L</b> (4) <i>Manufacturing Proc. I</i> (ENGR 250, ME 260 'C' or ME 265)</li> <li><input type="checkbox"/> <b>DDC course</b> (3) <i>GEHA</i></li> <li><input type="checkbox"/> <b>IMSE 421</b> (3) <i>Engr. Economy &amp; Decision Analysis</i> (Junior or Senior) DDC GEIN</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>IMSE 4675</b> (4) <i>Six Sigma &amp; Statistical Process Improvement</i> (IMSE 317) - <b>Winter only</b></li> <li><input type="checkbox"/> <b>IMSE 440</b> (3) <i>Applied Statistical Models Engr.</i> (IMSE 317) - <b>Winter only</b></li> <li><input type="checkbox"/> <b>IMSE 4795</b> (4) <i>Production, Inventory Control, Lean Manufac.</i> (IMSE 317) - <b>Winter only</b></li> <li><input type="checkbox"/> <b>ECE 305 + ECE 305L</b> (4) <i>Intro. To Electrical Engineering</i> (PHYS 151, MATH 215, MATH 228*)</li> </ul>	<p>IMSE 351 (3), IMSE 381 (4), IMSE 456 (4), IMSE 4545 (4), IMSE 4825 (4), IMSE 4835 (4), IMSE 486 (3), ENGR 360 (4) (DDC GEIN), ENGR 400 (DDC GEIN, GECT), ACC 298 (3), ACC 299 (3), OB 354 (3), OB 401 (3), OB 402 (3), LE 452 (3), ENT 400 (3) (DDC GEIN), MKT 352 (3), ENGR 299 (1), ENGR 399 (1), ENGR 499 (1)</p> <p>ENGR 492 (1-3), ENGR 493 (1-3) - CECS Experiential Honors Program</p>
Semester 7	Semester 8	NOTES
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>IMSE 4585</b> (4) <i>Simulation System Design</i> (IMSE 317, IMSE 255, IMSE 3005*) - <b>Fall only</b></li> <li><input type="checkbox"/> <b>IMSE Focus Area Elective</b> (3-4) (check individual courses for pre-reqs)</li> <li><input type="checkbox"/> <b>IMSE Focus Area Elective</b> (3-4) (check individual courses for pre-reqs)</li> <li><input type="checkbox"/> <b>DDC course</b> (3) <i>GESB</i></li> <li><input type="checkbox"/> <b>IMSE 4951</b> (2) <i>Senior Design I</i> IMSE 421 and (IMSE 4795 or IMSE 4585 or IMSE 4835), and COMP 270 or equivalent</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>IMSE 4745</b> (4) <i>Facilities Design</i> (IMSE 3005*) - <b>Winter only</b></li> <li><input type="checkbox"/> <b>IMSE 4952</b> (2) <i>Senior Design II</i> (IMSE 4951, IMSE 4425*, IMSE 440*, and IMSE 4675*) DDC GEWI, GECE</li> <li><input type="checkbox"/> <b>IMSE Focus Area Elective</b> (3-4) (check individual courses for pre-reqs)</li> <li><input type="checkbox"/> <b>General elective</b> (3) - <i>Only needed if student still needs to reach 128 credits</i></li> <li><input type="checkbox"/> <b>IMSE 4555</b> (3) <i>Systems Eng: Proc, Meth &amp; Pract</i> (IMSE 3005, IMSE 4425*, IMSE 4585*) <b>Winter only</b></li> </ul>	<p>Check focus area courses' prerequisites, corequisites, course credit and schedule in <a href="#">DegreeWorks</a>, the <a href="#">Undergrad Catalog</a> and <a href="#">Browse Classes</a>.</p> <p>A course may fulfill multiple requirements; however, credit is only applied once. Using one course to fulfill multiple requirements may result in a deficiency in total credits. Classes that can double fulfill DDC Critical &amp; Creative Thinking and other DDC course/focus area/general electives: ENGR 400, HUM 240, HUM 248, CRJ 200, ARTH 101, ARTH 102, ENGL 200, PHIL 233</p> <p>If program course requirements are all met but total credits applied from those courses does not equal 128, General Elective credit may be required.</p>

\* denotes a corequisite course

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