

Sample Pathway to Bachelor of Science in *Data Science and Economics*, 135 total credits

**FALL 2025**

Semester 1	Semester 2	Semester 3
<input type="checkbox"/> <b>CIS 1501</b> (4) <i>Computer Science for DS I</i> (MATH 115*) <input type="checkbox"/> <b>COMP 105</b> (3) <i>Writing &amp; Rhetoric I</i> DDC GEWO <input type="checkbox"/> <b>MATH 115</b> (4) <i>Calculus I</i> (MATH 105 'C-' or placement); DDC GEQT <input type="checkbox"/> <b>DDC course</b> (3) GEHA See DDC master list for options	<input type="checkbox"/> <b>CIS 2001</b> (4) <i>Computer Science for DS II</i> (CIS 1501 'C-', MATH 115) <input type="checkbox"/> <b>MATH 116</b> (4) <i>Calculus II</i> (MATH 115 'C-') <input type="checkbox"/> <b>ECON 201</b> (3) GESB <input type="checkbox"/> <b>DDC course</b> (3) GEHA See DDC master list for options	<input type="checkbox"/> <b>MATH 215</b> (4) <i>Calculus III</i> (MATH 116 'C-') <input type="checkbox"/> <b>ECON 202</b> (3) GESB <input type="checkbox"/> <b>Foreign Language (4)</b> Options-ARC 101, CHIN 101, FREN 101, GER 101, LAT 101 OR SPAN 101 <input type="checkbox"/> <b>CIS 275</b> (4) <i>Discrete Structures I</i> (MATH 115, CIS 200*), or <b>MATH 276</b> (4) <i>Discrete Math</i> (MATH 116 'C-'), or <b>MATH 315</b> (4) <i>Applied Combinatorics</i> (MATH 227)
Semester 4	Semester 5	Semester 6
<input type="checkbox"/> <b>STAT 305</b> (3) <i>Intro to Data Science</i> <input type="checkbox"/> <b>MATH 227</b> (3) <i>Intro to Linear Algebra</i> (MATH 116 'C-') <input type="checkbox"/> <b>Foreign Language</b> (4) Options-ARC 102, CHIN 102, FREN 102, GERM 102, LAT 102 OR SPAN 102 <input type="checkbox"/> <b>ECON 301</b> (4) <i>Intermediate Economics</i> (ECON 201, ECON 202, MATH 105)	<input type="checkbox"/> <b>STAT 325</b> (4) <i>Applied Statistics</i> (MATH 115 'C-'), or <b>IMSE 317</b> (3)** <i>Probability &amp; Statistics</i> (MATH 116) <input type="checkbox"/> <b>COMP 270</b> (3) <i>Technical Writing</i> (COMP 105 or placement); DDC GEWO <input type="checkbox"/> <b>CIS 350</b> (4) <i>Data Structures</i> (MATH 115, CIS 2001 'C-', and 275) <input type="checkbox"/> <b>ECON Elective (3-4)</b> See note	<input type="checkbox"/> <b>ENT 400</b> (3) <i>Entrepreneurship</i> (55 credits); DDC GEIN, or <b>ENGR 400</b> (3) <i>Applied Business Techniques</i> (85 credits); DDC GEIN <input type="checkbox"/> <b>ECE 3100 Fall</b> (4) <i>Data Science I</i> (CIS 1501, MATH 227, STAT 325* or IMSE 317*) <input type="checkbox"/> <b>CIS 422 Fall</b> (4) <i>Big Data Management</i> (CIS 350) <input type="checkbox"/> <b>ECON Elective (3-4)</b> See note

\* denotes a corequisite course

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

Semester 7	Semester 8	Semester 9
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 375</b> (4) <i>Software Engineering I</i> (COMP 270, CIS 350)</li> <li><input type="checkbox"/> <b>STAT 430</b> Fall (3) <i>Applied Regression Analysis</i> (STAT 325 or IMSE 317)</li> <li><input type="checkbox"/> <b>ECONOMICS FOUNDATIONS</b> (4) <i>See FNDS/CPBL List</i></li> <li><input type="checkbox"/> <b>ECON 302</b> (4) <i>Intermediate Economics</i> (ECON 201, ECON 202, MATH 105)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>HHS 470</b> Winter (3) <i>Info Science &amp; Ethics</i></li> <li><input type="checkbox"/> <b>CIS 3200</b> Winter (4) <i>Data Science II</i> (CIS 2001, ECE 3100)</li> <li><input type="checkbox"/> <b>Intersections</b> (3) GEIN ENGR 400, ENT 400, or IMSE 421 See individual courses for pre-reqs</li> <li><input type="checkbox"/> <b>Lab Science Sequence I</b> (4) Choose from: BIOL 130, GEOL 118, CHEM 134, PHYS 125, PHYS 150; DDC GENS</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Lab Science Sequence II</b> (4) Choose from same subject area as Sequence I: BIOL 320, GEOL 218, CHEM 136, PHYS 126, PHYS 151; DDC GENS</li> <li><input type="checkbox"/> <b>DDC course</b> (3) GESB See DDC master list for options</li> <li><input type="checkbox"/> <b>ECON Elective</b> (3-4) <i>See note</i></li> <li><input type="checkbox"/> <b>ECON Elective</b> (3-4) <i>See note</i></li> </ul>
Semester 10	Semester 11	ECON Elective Notes
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 4971</b> (2) <i>Senior Design I</i> (CIS 3200 and STAT 325 or IMSE 317); DDC GEWI, GECT, GECE</li> <li><input type="checkbox"/> <b>ECON Elective</b> (3-4) <i>See note</i></li> <li><input type="checkbox"/> <b>ECON Elective</b> (3-4) <i>See note</i></li> <li><input type="checkbox"/> <b>Data Science Elective</b> (3-4) See Data Science Elective List for course options and check course descriptions for prereqs</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 4972</b> (2) <i>Senior Design II</i> (CIS 4971); DDC GEWI, GECT, GECE</li> <li><input type="checkbox"/> <b>ECON Elective</b> (3-4) <i>See note</i></li> </ul>	<p><b>ECON Electives</b>—Take a total of 20 credit hours of ECON 300/400/4000 electives, <b>not counting</b> the core classes ECON 301, ECON 302, ECON 305. Only 4 credits of ECON 398 can count towards electives.</p>

Notes	Notes	Notes
<p><b>DATA SCIENCE ELECTIVES (3-4 credits required)</b></p> <p>Approved Electives: CIS 306 (4) CIS 411 (3), CIS 412 (3), CIS 425 (4), CIS 439 (3), CIS 446 (3), CIS 449 (3) CIS 479 (3) CIS 481 (3), CIS 482 (3), CIS 483 (3), CIS 489 (3), CIS 4851 (3), DS 426 (3), ECE 427 (4), ECE 428 (3), ECE 434 (4), ENGR 399 (1), ENGR 492 (1-3),ENGR 493 (1-3), IMSE 3005 (4), IMSE 421 (3), IMSE 440 (3), IMSE 4585 (4), IMSE 4795 (4), MATH 325 (3), MATH 420 (3), MATH 425 (3), MATH 435 (3), MATH 462 (3), MATH 472 (3), MATH 473 (3), STAT 327 (3), STAT 431 (4), STAT 440 (3), STAT 450 (3), STAT 460 (3)</p>	<p>A course may have multiple requirements; however, credit is only applied once. Using one course to multiple requirements may result in a deficiency in total credits.</p>	<p>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.</p> <p>For DDC requirements, please see the University's <a href="#">guidelines</a></p> <p>Each student's pathway is unique and may differ slightly from this one</p> <p>See <a href="#">DDC master list</a> for GESB/GEHA option</p>