

Sample Pathway to Bachelor of Science in *Computer & Information Science*, concentration in Information Systems  
(120 credits) **Fall 2026**

SEMESTER 1	SEMESTER 2	Notes
<input type="checkbox"/> <b>CIS 150 +CIS 150L</b> (4) <i>Computer Science 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 200+CIS 200L</b> (4) <i>Computer Science II</i> (CIS 150 'C-', MATH 115) <input type="checkbox"/> <b>CIS 275</b> (4) <i>Discrete Structures I</i> (CIS 200*, MATH 115) <input type="checkbox"/> <b>MATH 116</b> (4) <i>Calculus II</i> (MATH 115 'C-') <input type="checkbox"/> <b>DDC course</b> (3) GEHA See DDC master list for options	<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> </ul>
SEMESTER 3	SEMESTER 4	Notes
<input type="checkbox"/> <b>Lab Science Sequence I</b> (4) Choose from: <i>BIOL 130, GEOL 118</i> (Fall only), <i>CHEM 134, PHYS 125, PHYS 150</i> ; DDC GENS <input type="checkbox"/> <b>CIS 350</b> (4) <i>Data Structures</i> (MATH 115, CIS 200 'C-', CIS 275) <input type="checkbox"/> <b>ECON 201</b> <i>Macroeconomics</i> or <b>ECON 202</b> <i>Microeconomics</i> (3) (MATH 105 recommended); DDC GESB <input type="checkbox"/> <b>MATH 227</b> (3) <i>Intro to Linear Algebra</i> (MATH 116 'C-') <input type="checkbox"/> <b>DDC course</b> (3) GESB See DDC master list for options	<input type="checkbox"/> <b>Lab Science Sequence II</b> (4) Same subject from Sequence I: <i>BIOL 320</i> (Summer only), <i>GEOL 218</i> (Winter only), <i>CHEM</i> <i>136, PHYS 126, PHYS 151</i> ; DDC GENS <input type="checkbox"/> <b>CIS 310</b> (4) <i>Assembly Language</i> (MATH 115, CIS 200, CIS 275) <input type="checkbox"/> <b>IMSE 317</b> (3) <i>Eng probability and Stats</i> (MATH 116) <input type="checkbox"/> <b>COMP 270</b> (3) <i>Technical Writing</i> (COMP 105 or placement); DDC GEWO	<ul style="list-style-type: none"> <li>Each student's pathway is unique and yours may differ slightly from what you see here</li> <li>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.</li> </ul>

\* denotes a corequisite course

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

SEMESTER 5	SEMESTER 6	Notes
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>IMSE 3005</b> Fall (4) <i>Operations Research</i> (MATH 227, IMSE 317*)</li> <li><input type="checkbox"/> <b>CIS 450</b> (4) <i>Operating Systems</i> (CIS 310, CIS 350, IMSE 317*)</li> <li><input type="checkbox"/> <b>CIS 375</b> (4) <i>Software Engineering I</i> (COMP 270, CIS 350); DDC GEWI</li> <li><input type="checkbox"/> <b>Intersections</b> (3) GEIN CIS 479, ENGR 400, ENT 400, or IMSE 421 See individual courses for pre-reqs</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 427</b> (4) <i>Computer Networks</i> (IMSE 317, CIS 350)</li> <li><input type="checkbox"/> <b>OB 354</b> (3) <i>Organizational Behavior</i> (55 credits); DDC GESB</li> <li><input type="checkbox"/> <b>CIS 296</b> Fall <i>Java Programming</i>, or <b>297</b> Winter <i>Intro to C#</i>, or <b>298</b> Winter <i>Intro to Python</i> (3) (CIS 200)</li> <li><input type="checkbox"/> <b>CIS Technical Elective</b> (4) See individual courses for pre-reqs</li> </ul>	<p>The Computer and Information Science (CIS) 4+1 option allows undergraduate Computer and Information Science students to earn both the BS in CIS and the MS in Computer and Information Science (MS-CIS), MS in Software Engineering (MS-SWE), MS in Artificial Intelligence (MSAI), MS in Cybersecurity and Information Assurance (MSCIA) or MS in Data Science (MS-DATA) in an accelerated format.</p> <p>Admitted students can double-count up to 9 credits of 500-level Computer and Information Science, Software Engineering, Artificial Intelligence, Cybersecurity and Information Assurance, and Data Science core, concentration/specialization/application or elective courses taken during their junior or senior years.</p>
SEMESTER 7	SEMESTER 8	Notes
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 4951</b> (2) <i>Senior Design I</i> (CIS 375, 427, 450); DDC GECE, GECC</li> <li><input type="checkbox"/> <b>*CIS 421</b> (4) <i>Database Systems</i> (CIS 350)</li> <li><input type="checkbox"/> <b>CIS 425</b> Fall (4) <i>Information Systems</i> (CIS 375, CIS 421*)</li> <li><input type="checkbox"/> <b>CIS Technical Elective</b> (4) See individual courses for pre-reqs</li> <li><input type="checkbox"/> <b>ACC 298</b> (3) <i>Financial Accounting</i> (MATH 105, 25 credits)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>CIS 4952</b> (2) <i>Senior Design II</i> (CIS 4951); DDC GECC, GECE</li> <li><input type="checkbox"/> <b>CIS 476</b> (3) <i>Software Architecture &amp; Design Patterns</i> (CIS 375)</li> <li><input type="checkbox"/> <b>Intersections</b> (3) GEIN CIS 479, ENGR 400, ENT 400, or IMSE 421 See individual courses for pre-reqs</li> <li><input type="checkbox"/> <b>CIS Technical Elective</b> (3)</li> <li><input type="checkbox"/> <b>CIS Technical Elective</b> (3) See individual courses for pre-reqs</li> </ul>	<p><b>APPROVED LIST OF TECHNICAL ELECTIVES</b> <b>14 credits required</b> CIS 285 (3), CIS 316 (3), CIS 376 (4), CIS 381 (4), CIS 387 (4), CIS 400 (4), CIS 405 (3), CIS 411 (3), CIS 412 (3cr), CIS 421 (4), *CIS 422 (3)*, CIS 425 (4), CIS 435 (3), CIS 436 (3), CIS 437 (3) CIS 439 (3), CIS 446 (3), CIS 447 (3) CIS 449 (3), CIS 451 (3), CIS 452 (3) CIS 467 (3), CIS 474 (3), CIS 476 (3), CIS 479 (3), CIS 481 (3), CIS 482 (3cr) CIS 483 (3), CIS 4851 (3), CIS 487 (3), CIS 488 (3), CIS 489 (3), CCM 404 (3), CCM 472 (3), ENGR 299 (1cr), ENGR 399 (1), ENGR 499 (1cr), ENGR 400 (3), CIS 490H (3), ENGR 492 (1-3), ENGR 493 (1-3), ENT 400 (3)</p> <p>* Credit cannot be earned for both CIS 421 and CIS 422</p> <p>Check design/tech 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>