

Sample Pathway to Bachelor of Science in *Software Engineering*, 120 total credits **Fall 2024**

Semester 1	Semester 2	NOTES
<input type="checkbox"/> <b>CIS 150</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	<input type="checkbox"/> <b>CIS 200</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	<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>A course may have multiple requirements; however, <b>credit is only applied once</b>. Using one course to multiple requirements may result in a deficiency in total credits.</p> <p>Each student's pathway is unique and may differ slightly from this one</p> <p>See DDC master list for GESB/GEHA options</p>
Semester 3	Semester 4	NOTES
<input type="checkbox"/> <b>Lab Science Sequence I</b> (4) Choose from: BIOL 130, GEOL 118, CHEM 134, PHYS 125, PHYS 150; DDC GENS <input type="checkbox"/> <b>CIS 3501</b> (4) <i>Data Structures for SE</i> (MATH 115, CIS 200 'C-', CIS 275) <input type="checkbox"/> <b>CIS 306</b> (4) <i>Discrete Structures II</i> (CIS 275) <input type="checkbox"/> <b>MATH 227</b> (3) <i>Intro to Linear Algebra</i> (MATH 116 'C-')	<input type="checkbox"/> <b>Lab Science Sequence II</b> (4) Same subject area as Sequence I: BIOL 320, GEOL 218, CHEM 136, PHYS 126, PHYS 151; DDC GENS <input type="checkbox"/> <b>CIS 285</b> (3) <i>Software Engineering Tools</i> (CIS 200*) <input type="checkbox"/> <b>IMSE 317</b> (3) <i>Eng probability and Stats</i> (MATH 116) <input type="checkbox"/> <b>ECON 201</b> <i>Macroeconomics</i> (3) (MATH 105 recommended); DDC GESB <input type="checkbox"/> <b>COMP 270</b> (3) <i>Technical Writing</i> (COMP 105 or placement); DDC GEWO	<p>CIS Technical Electives and Application Area must total at least <b>14 credits</b></p> <p>TECHNICAL ELECTIVES            CIS 316 (3), CIS/IMSE 381 (4), CIS 387 (4), CIS 400 (4), CIS 405 (3), CIS 411 (3), CIS 412 (3), CIS 421 (4), CIS 422 (3), CIS 423 (3), CIS 425, CIS 435 (3), CIS 436 (3), CIS 439 (3), CIS 437 (3), CIS 446 (3), CIS 447 (3), CIS 449 (3), CIS 451 (3), CIS 452 (3), CIS 467 (4), CIS 474 (3), CIS 479 (3), CIS 482 (3), CIS 4851 (3), CIS 487 (3), CIS 488 (3), CIS 490H (3), ECE 372 (4), ECE 473 (4), ENGR 360 (4), ENGR 399 (1), ENGR 492 (1-3), ENGR 493 (1-3)</p>

\* denotes a corequisite course

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

Semester 5	Semester 6	NOTES
<input type="checkbox"/> <b>CIS 310</b> (4) <i>Assembly Language</i> (MATH 115, CIS 200, CIS 275) <input type="checkbox"/> <b>CIS 375</b> (4) <i>Software Engineering I</i> (COMP 270, CIS 3501); DDC GEUW <input type="checkbox"/> <b>Intersections</b> (3) GEIN CIS 479, ENGR 400, or ENT 400 See individual courses for pre-reqs <input type="checkbox"/> <b>DDC course</b> (3) GESB	<input type="checkbox"/> <b>CIS 427</b> (4) <i>Computer Networks</i> (IMSE 317, CIS 3501) <input type="checkbox"/> <b>OB 354</b> (3) <i>Organizational Behavior</i> (55 credits); DDC GESB <input type="checkbox"/> <b>CIS 376</b> (4) <i>Software Engineering II</i> (CIS 375) <input type="checkbox"/> <b>Additional Science Course</b> (4) Choose course in different subject area from Lab Science Sequence on the previous page. Options include: ASTR 130 + 131, GEOL 118, GEOL 218, CHEM 134, PHYS 125, PHYS 150	<p><b>Only one of the following three courses can count towards your 120 credit hours for the Software Engineering Program:</b> CIS 296 (3) CIS 297 (3) CIS 298 (3)</p> <p><b>Only one of the following three courses can count towards your technical electives:</b> ENGR 360 (4) Design Innovations ENGR 400 (3) Applied Bus Tech ENT 400 (3) Intro to Entrepreneurship</p>
Semester 7	Semester 8	NOTES
<input type="checkbox"/> <b>CIS 4961</b> (2) <i>Senior Design I</i> (CIS 376); DDC GECT <input type="checkbox"/> <b>CIS 476</b> (3) <i>Softw Arch &amp; Design Patterns</i> (CIS 375) <input type="checkbox"/> <b>General Elective</b> (3) <input type="checkbox"/> <b>Application Area</b> (3) <input type="checkbox"/> <b>CIS Technical Elective</b> (4) See individual courses for pre-reqs	<input type="checkbox"/> <b>CIS 4962</b> (2) <i>Senior Design II</i> (CIS 4961, CIS 476*); DDC GECT, GECE <input type="checkbox"/> <b>CIS 450</b> (4) <i>Operating Systems</i> (CIS 310, CIS 3501, IMSE 317*) <input type="checkbox"/> <b>General Elective</b> (3) <input type="checkbox"/> <b>Application Area</b> (4) <input type="checkbox"/> <b>CIS Technical Elective</b> (3) See individual courses for pre-reqs	<p><b>Application Area:</b> Pick ONE application sequence</p> <p><b>Web Engineering:</b> CIS 421 (4) CIS 435 OR CIS 436 (3)</p> <p><b>Game Design</b> CIS 297 (3) CIS 487 (3) CIS 488 (3)</p> <p><b>Information Systems Sequence</b> CIS 425 (4) CIS 447 (3)</p> <p><b>Artificial Intelligence Sequence</b> CIS 411 (3) CIS 479 (3) CIS 481 (3)</p> <p>CIS Technical Electives and Application Area must total at least <b>14 credits</b></p>