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Bachelor of COMPUTER SCIENCE & Physics (CS)

4-Year Recommended Course Sequence with *Calculus Entry*

Click on the Course Name to access the course in the Undergraduate Catalog 24-25

Updated July 2025

Fall Semester 1	Spring Semester 2	Fall Semester 3	Spring Semester 4	Fall Semester 5	Spring Semester 6	Fall Semester 7	Spring Semester 8
☆INQ 170 [3] Intro to Engineering Design	CIS 260 [4] Intro to Programming (CIS 151)	CIS 265 [4] Data Structures and Algorithms (CIS 260, MTH 181)	CIS 335 [3] Language Processors (CIS 265)	CIS 390|CIS 550 [3] Introduction to Algorithms (CIS 265, MTH 220)	PHY 335 [3] Modern Physics Lab or PHY 461 [3] or PHY 455 [3]	PHY 493 [2] Advanced Topics in Physics	PHY 493 [1] Capstone
CIS 151 [3] Invitation to Computing	PHY 241 [5] Physics I (MTH 181)	MTH 220 [3] Discrete Math (MTH 182- C or better)	MTH 288 [3] Linear Algebra (MTH 182- C or better)	CIS 402 [2] CS Technical Writing (CIS 260, ENG 102 or ESC 102)	PHY 300/400 Elective [3]	PHY 482 [3] Optical Materials	PHY 493 [2] Advanced Topics in Physics
ENG 100 [3] Intensive Writing or ENG 101 [3] College Writing I	ENG 102 [3] College Writing II (ENG 100 or ENG 101) OR ENG 108 [3] AI & Writing (Preferred) (ENG 101)	PHL 216 [3] AI & Data Ethics (ENG 102 or ESC 102)	CIS 340 [3] Systems Programming (CIS 265)	PHY 320 [3] Introduction to Computational Physics (PHY 242)	CIS 300/400 Elective [3]	PHY 300/400 Elective [3]	General Elective [3]
MTH 181 [4] Calculus I	MTH 182 [4] Calculus II (MTH 181- C or better)	PHY 242 [5] Physics II (PHY 241)	American Civic Literacy Elective [3]	PHY 330 [3] Introduction to Modern Physics (PHY 242)	CIS 300/400 Elective [3]	CIS 300/400 Elective [3]	General Elective [3]
Society and Human Behavior Elective [3]		**ESC 130 [1] Engineering & Computer Science Career Preparation	General Elective [3]	PHY 300/400 Elective [3]	Global Human Perspectives Elective [3]	General Elective [3]	General Elective [3]
						General Elective [1]	Complexities of Pluralistic Society Elective [3]
16 Total Credit Hours	16 Total Credit Hours	15 or 16 Total Credit Hours	15 Total Credit Hours	14 Total Credit Hours	15 Total Credit Hours	15 Total Credit Hours	15 Total Credit Hours

Degree Total Hours: 121 or 122 including ESC 130 Engineering Co-op Orientation

(Prerequisites) • (*Pre/co-requisite) • [# of Course Credits] • CIS XXX = Only Offered That Fall/Spring Semester

- Required CIS Courses ** ESC 130 is highly recommended but not required
- Required Science Courses
- Required English Courses
- Required Writing Across the Curriculum (WAC) Courses
- Required CIS Electives **3 semesters of co-op can replace one elective
- Required Math Courses
- Core Curriculum Electives

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