

MACS Curriculum Overview (4 Year Sample Path)

Year 1	Fall Term	Winter Term	Spring Term
	CIS 122 Intro to Programming	CIS 210 Computer Science I	CIS 211 Computer Science II
	MATH 112 Elementary Functions	MATH 231 Discrete Math I	MATH 232 Discrete Math II
	WRI 121 College Composition I	WRI 122 College Composition II	General Education Course
	General Education Course	General Education Course	General Education Course
Year 2	CIS 212 Computer Science III	CIS 313 Data Structures	CIS 315 Algorithms
	MATH 251 or 261 Calculus I	MATH 252 or MATH 262 Calculus II	MATH 253 or 263 Calculus III
	Three-term Laboratory Science Sequence in Biology, Chemistry, Physics, Geological Sciences, Geography or Psychology (see list on reverse side), or Computer Science related Minor.		
	General Education Course	General Education Course	General Education Course
Year 3	CIS 314 Computer Organization	CIS 322, CIS 330 or CIS 422	CIS 425 Principle of Programming
	MATH 316, MATH 347 or MATH 391	MATH 341 Elem. Linear Algebra	MATH 342 Elem. Linear Algebra
	General Education Course	General Education or Elective Course	General Education or Elective Course
	Elective or Minor Course	Elective or Minor Course	Elective or Minor Course
Year 4	CIS Elective Course	CIS Elective Course	MATH Elective Course
	MATH 351 or MATH 461	MATH 352 or MATH 462	WRI 320/321 Technical Writing
	Elective Course	Elective Course	Elective Course

Summer Internship
or Research Opportunity

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Math Core Requirements

MATH Elective

MACS majors must take an upper-division MATH elective, excluding 425, 426, or 427.

Laboratory Science Requirements

Students must complete one three-term sequence chosen from the following:

Science Course 1

Science Course 2

Science Course 3

- General Physics: PHYS 201, 202, 203
- Foundations of Physics: PHYS 251, 252, 253
- General Chemistry: CH 221, 222, 223
- Honors General Chemistry: CH 224H, 225H, 226H
- Geological Sciences: GEOL 201, 202, 203
- Geography: GEOG 141, *choose 2: [GEOG 321, GEOG 322, GEOG 323]*
- Biology: *choose 1: [CH 111, CH 113, CH114, CH 221, CH 224H],*
BI 211, then choose 1: [BI 212, BI 213]
- Psychology: PSY 201, *then choose 2: [PSY 301, 304, 305, 348]*