

## Chart of Introductory Course Sequences for Science and Math Programs 2023-2024

	If your intended program is							
You should take these introductory courses See links below for full course sequences	Biology (f)	Biochemistry	Chemistry	Pre-Health/Health Science (e, i)	Physics	3/2 Engineering	Math	Computer Science
<b>BIOL-112</b> Evolution and Genetics	Fall or Winter	Fall or Winter (g)		Fall or Winter				
<b>BIOL-123</b> Form and Function	Fall or Spring			Fall or Spring				
<b>CHEM-110 (c)</b> Composition & Structure		Fall	Fall	Fall		Fall		
<b>CHEM-120</b> Chemical Reactivity		Winter or Spring	Winter or Spring	Winter or Spring				
<b>MATH-110/111 (a)</b> Calculus with Review		Fall/Winter or Winter/Spring	Fall/Winter or Winter/Spring		Fall/Winter	Fall/Winter	Fall/Winter or Winter/Spring	Fall/Winter or Winter/Spring
<b>MATH-112 (a)</b> Calculus 1		Fall, Winter, or Spring	Fall, Winter, or Spring	(i)	Fall	Fall	Fall	Fall, Winter, or Spring
<b>MATH-113 (a)</b> Calculus 2					Winter or Spring as soon as possible after MATH110/111 or MATH112	Winter or Spring as soon as possible after MATH110/111 or MATH112	Winter or Spring as soon as possible after MATH110/111 or MATH112	
<b>MATH-214 (b)</b> Calculus 3 <b>MATH-240</b> Linear Algebra					Spring as soon as possible after MATH113	Spring as soon as possible after MATH113	Spring as soon as possible after MATH113	
<b>PHYS-150 (d)</b> Intro Physics 1					Winter	Winter		
<b>PHYS-152</b> Intro Physics 2					Spring following PHYS150	Spring following PHYS150		
<b>COMP-101 + COMP-102/103/104 (h)</b> Intro to Computers, Programming Basics						Fall		Fall
<b>COMP-150</b> Object-Oriented Programming								Winter
<b>COMP-210</b> Data Structures								Spring

- (a) Take the Calculus Placement Exam. Students with previous calculus work in high school and/or AP Credit may place out of MATH-110/111, MATH-112 and/or MATH-113. Please note that completion of the two-term Calculus with Review sequence MATH-110/111 is equivalent to completion of MATH-112 Calculus 1.
- (b) MATH-214 and MATH-240 are offered every fall and spring and can be taken in any order. They require MATH-112 and MATH-113 (or equivalent placement).

- (c) Take the Chemistry Placement Exam. Students with previous chemistry work in high school and/or AP Credit may place out of CHEM-110.
- (d) MATH-112 or equivalent (AP score, placement exam, or transfer credit) is a prerequisite for PHYS-150. For students who placed into MATH-110, completing MATH-110 and concurrent enrollment in MATH-111 and PHYS-150 also meets the prerequisite.
- (e) There isn't a "pre-med" major at Kalamazoo College. The courses listed here form part of the traditional preparatory coursework needed for application to health professions post-graduate programs. Students interested in preparing for postgrad training in health science can have majors outside the science fields.
- (f) Students interested in studying biology are often interested in preparing for post-graduate programs related to biomedicine and allied health professions. Please see "Health Science" above for additional courses recommended for the first year of study.
- (g) Students interested in majoring in Biochemistry are strongly encouraged to complete BIOL112 during either fall or winter terms of the first year.
- (h) COMP-101, 102, 103, and 104 are .5 unit courses. A combination of COMP-101/102, COMP-101/103, or COMP-101/104 should be taken to equal a full 1.0 unit course.
- (i) The chosen pre-health profession track will determine required math courses. Some health professions will need Calculus (MATH-112) as a pre-requisite to Physics, but Calculus may not necessarily be required for the health profession, while some other professions only require a statistics course. See the website link below for full details.

**Full details for each program can be found at the links below:**

Biology: <https://biology.kzoo.edu/requirements/>

Chemistry or Biochemistry: <https://www.kzoo.edu/catalog/academic-programs/chemistry-and-biochemistry/>

Health Science/Careers in Health: <https://careersinhealth.kzoo.edu/> and <https://careersinhealth.kzoo.edu/explore-health-and-medicine-tracks/>

Physics: <https://physics.kzoo.edu/major-sequence/>

3/2 Engineering: <https://physics.kzoo.edu/major-sequence/>

Math: <https://mathematics.kzoo.edu/requirements-for-the-major-or-minor/>

Computer Science: <https://computerscience.kzoo.edu/requirements/majorminor/> and <https://computerscience.kzoo.edu/advising-information/>

**These concentrations, which contain courses from more than one department, may also be of interest:**

Biological Physics: <https://physics.kzoo.edu/biological-physics-requirements/>

Community & Global Health: <http://www.kzoo.edu/programs/community-global-health/>

Environmental Studies: <https://environmentalstudies.kzoo.edu/requirements/>

Neuroscience: <http://www.kzoo.edu/programs/neuroscience/?id=44&type=1>