

SUGGESTED FIRST-YEAR COURSE SEQUENCES FOR SCIENCE AND MATH

		<i>IF YOUR INTENDED MAJOR/INTEREST IS...</i>						
		BIOLOGY	CHEMISTRY	COMPUTER SCIENCE	MATH	PHYSICS	PRE-HEALTH PROFESSIONS	3/2 ENGINEERING
YOU SHOULD TAKE THESE COURSES...	Biology 112	Fall or Winter					Fall or Winter	
	Biology 123	Winter or Spring					Winter or Spring	
	Chemistry 110[■]	Fall or Winter	Fall or Winter				Fall or Winter	Fall or Winter
	Chemistry 120	Winter or Spring	Winter or Spring				Winter or Spring	Winter or Spring
	Chemistry 210	Spring	Spring				Spring	
	Comp Sci 105 or 108 (see next page)			Fall		Fall		Fall
	Comp Sci 110 & 210 (see next page)			Winter (110); Spring (210)				Winter
	Math 112[●] (or Math 110 & 111) ^{●●}		Fall or Winter [*]	Fall, Winter or Spring	Fall	Fall [*]	Fall, Winter or Spring [*]	Fall [*]
	Math 113		Winter	Fall, Winter or Spring	Fall or Winter	Fall or Winter		Fall or Winter
	Math 214 and 240				Fall or Spring	Fall or Spring		Fall or Spring
	Physics 150[*]		Winter			Winter	Soph year (or winter) [▲]	Winter
Physics 152		Spring			Spring	Soph year (or spring) [▲]	Spring	

■ Must take placement exam; students with a chemistry AP score of 4 or 5 begin the sequence with Chemistry 120

● Must take placement exam; students with a calculus AP score of 4 or 5 on the AB exam begin the sequence with Math 113, a score of 4 or 5 on the BC exam can begin the sequence with Math 214. Please talk to the department with any concerns regarding placement/AP scores.

●● Math 110 (offered in fall) and Math 111 (offered in winter) cover in two quarters the material covered in Math 112. Completion of the two-term Math 110-111 sequence serves as an alternative pre-requisite for all courses requiring Math 112.

★ Math 112 is a pre-requisite (i.e., it must be taken before or placed out of on the placement exam) for Physics 150

▲ Most students take these courses in the sophomore year, but students who have a strong math background (algebra, trigonometry, and Calculus I) and have had physics in high school are encouraged to take the courses in their first year, if space is available

ADDITIONAL ADVICE FOR SCIENCE AND MATH STUDENTS

- You will take **three courses each quarter** (fall, winter, and spring). In fall, you must take a First-Year Seminar and two additional courses. First-Year Seminars are offered in fall quarter only, so you will take a total of 8 additional courses in your first year (2 in fall, 3 in winter, 3 in spring).
 - *You are registering for fall quarter only at this time.*
- If you are interested in a pre-med focus or intend on a math/science major, it is important to start taking these courses (at least one, possibly two) in fall quarter to stay on track in the sequence. This also allows you to keep options open for study abroad (as a sophomore or junior).
 - Most students interested in math/science will take at least four math/science courses in their first year.
 - For example, students who want to major in biology and are following a pre-med focus need to take two chemistry and two biology courses in the first year. This allows you to complete enough courses in the sequence over your first two years and be able to attend a six-month study abroad program in the junior year.
 - Students who are undecided between majoring in either biology or chemistry or are following a pre-med focus have the option to take both Biology 112 and Chemistry 110 in the fall of the first year.
 - *If these courses are full (closed) when you register, they are also offered in the winter, so it is important that students plan multiple possible schedules for fall.*
- For students interested in Computer Science: COMP 105 (Intro to CS) is a “big picture” introduction to computer science that covers fundamental computer programming concepts and constructs, how computers represent information, limits to what is computable, and other topics. COMP 108 (Intro to Scientific Computing) focuses on scientific modeling and data analysis, and is intended for students with a strong interest or background in science, math, and/or computer science. COMP 210 (Data Structures) is intended for students who have taken COMP 105 and 110 (Java Programming), or their equivalent.
- Students with specific concerns or questions about their science background/preparation or scheduling options should consult the relevant department about which course sequence will best suit them.
 - For more information, see departmental websites or email advising@kzoo.edu.
 - *Please note: students will have many opportunities to talk directly with faculty and their academic advisor during orientation to discuss (and possibly adjust) their fall schedule before classes begin.*