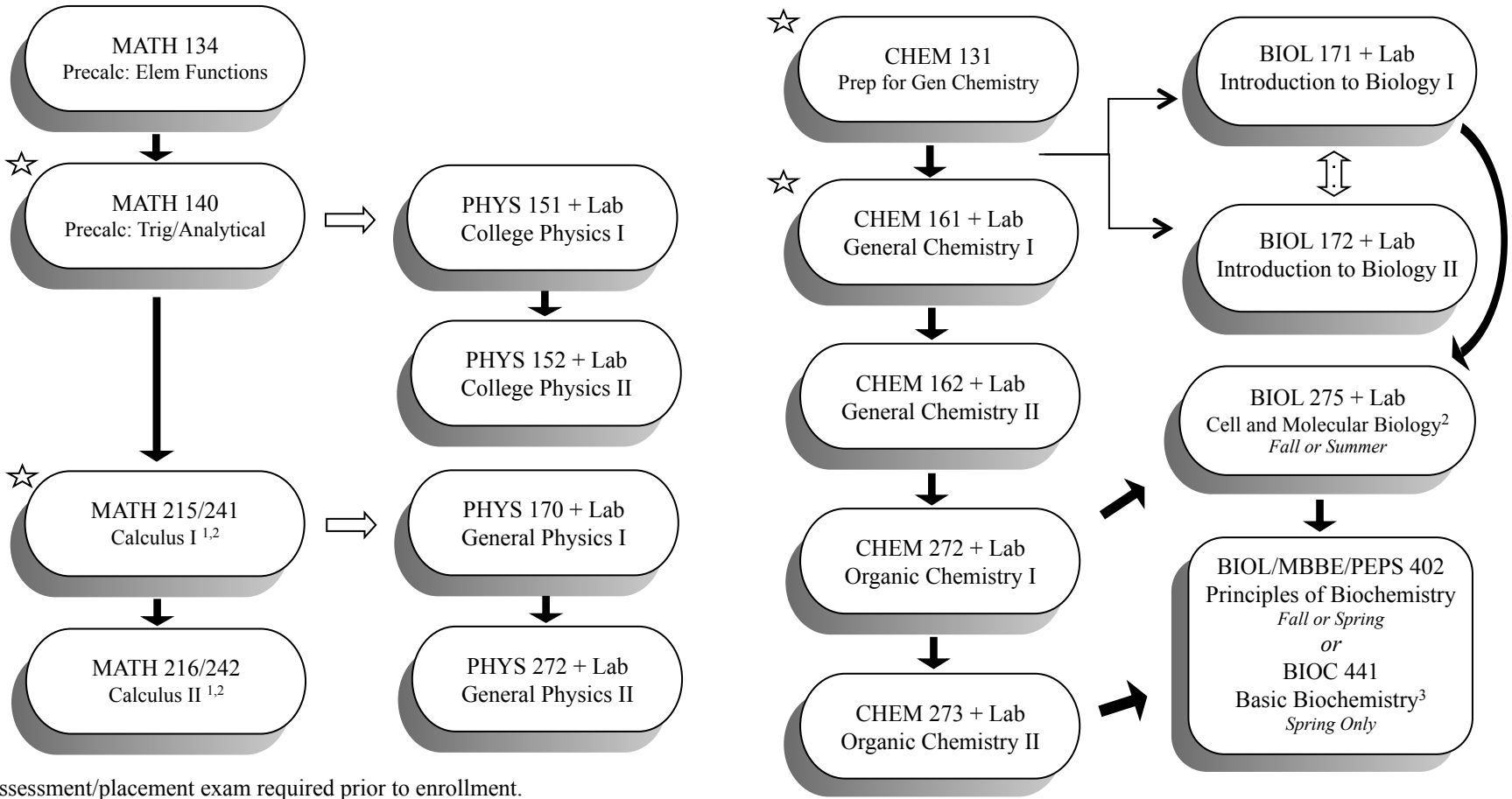


Getting on Track with Pre-Health Courses

Be sure to research the requirements of the schools you plan to apply to!



★ Assessment/placement exam required prior to enrollment.

➔ Required pre-requisite sequencing.

↕ BIOL 171 and 172 may be taken in any order.

➔➔ BIOL 171 and 172 must be completed *after or concurrently* with CHEM 131 or 161.

⇨ MATH 140 or Math Assessment is a pre-requisite for PHYS 151.

PHYS 151-152 are trigonometry-based. PHYS 170-272 are calculus-based.

MATH 215-216 and PHYS 151-152 have been developed for life science majors.

MATH 241-242 and PHYS 170-272 have been developed for majors in chemistry, math, physics, and engineering.

Check the Catalog and Registration Guide for pre-requisites, placement exams, and/or approval codes.

Notes:

- 1 Certain majors have specific calculus and physics course requirements; see your major advisor for more information
- 2 These pre-requisites are not required by most programs; be sure to research the requirements of the schools you plan to apply to.

First-Semester Science and Math Courses for Pre-Health Students

- Be sure you have the *pre-requisites and a placement/assessment* for courses you choose.
- Check to see if you need to take a *placement/assessment exam* before enrolling.
- Take courses in the correct *sequence*.
- Consider *availability*: not all courses are offered every semester.
- Consider *course load per semester*: for the first semester, under-load rather than over-load.

Less-----12 cr. -----15-16 cr. -----19 cr. -----More
(part-time) (min. full time) (to graduate in 4 years) (max.) (overload)

Mathematics

Pre-requisite(s) or an assessment exam needed.

Note: If you do not place into calculus, consult an academic advisor or the Math Department about preparatory courses.

Sequencing is flexible; consult the catalog, an advisor, or the Math Department.

Recommended for the health sciences:

MATH 215 Applied Calculus I (4 cr.)

Pre: C (not C-) or better in 140 or assessment exam.

OR

MATH 241 Calculus I (4 cr.)

Pre: C (not C-) or better in 140 or 215 or assessment exam.

☆ Quick tips for the assessment exam:

- **Take the practice exams:** Available on the Math Department website; note the problems you missed and review similar problems in high school algebra or geometry textbooks.
- **Remember to take the official exam:** The online Math Practice Exam is an unofficial assessment. You must take an official exam in person.
- **Think carefully:** Questions are designed to test common errors.
- **Do your best:** You will only be allowed to take the exam once per semester.
- **Be patient:** Wait for the questions to fully load before answering.
- **Come prepared:** Bring your UH ID **or** an official picture ID and a pencil.
- **Visit:** <http://www.math.hawaii.edu/home/Placement.html>

Physics

Check for math pre-requisite(s) or a Math Assessment.

Sequencing: 151/L + 152/L or 170/L + 272/L or 170A/L + 272A/L (Honors).

Recommended for the health sciences:

PHYS 151 College Physics I (3 cr.)

Pre: C in MATH 140 or 215 or higher; or Math Assessment.

PHYS 151L College Physics Lab I (1 cr. 3-hr Lab)

Pre: 151 (or concurrent).

OR

PHYS 170 General Physics I (4 cr.)

Pre: MATH 242 (or concurrent) or MATH 252A (or concurrent);
MATH 216 may be substituted with consent.

PHYS 170L General Physics I Lab (1 cr. 3-hr Lab)

Pre: 170 (or concurrent) or 170A (or concurrent).

Chemistry

All students who wish to enroll in CHEM 131 or 161 for the first time must take the Pre-Chemistry Assessment and obtain a passing score.

Sequencing: 161/L + 162/L *or* 171/L (accelerated: 2 semesters in 1) *or* 181A/L (Honors).

Note: The accelerated courses, 171/L and 181/L, may cause difficulties when applying to schools that require a year of General Chemistry.

Recommended for the health sciences:

CHEM 161 General Chemistry I (3 cr.)

Pre: C (not C-) in 131 or 151, successful completion of placement exam, or consent.

CHEM 161L General Chemistry Lab I (1 cr. 3-hr Lab)

Pre: 161 (or concurrent).

☆ Quick tips for the placement exam:

- **Take sample questions:** Available on chemistry department website. Review stoichiometry, algebra, and general chemistry concepts.
- **Think carefully:** Questions are designed to test common errors.
- **Do your best:** You will only be allowed to take the exam twice (not on the same day) before the semester begins.
- **Visit:** <http://manoa.hawaii.edu/chem/index.php?id=29> for further information and the link to the online exam.

Biology

Pre-requisite(s) needed but no placement/assessment exam.

Sequencing: BIOL 171/L and 172/L may be taken in any order.

Recommended for the health sciences:

BIOL 171 Introductory Biology I (3 cr.)

Pre: CHEM (131, 151, 161, 171, or 181A), concurrently, or consent.
Co-requisite: 171L.

BIOL 171L Introductory Biology I Lab (1 cr. 3-hr Lab)

Pre: CHEM (131, 151, 161, 171, or 181A), concurrently, or consent.
Co-requisite: 171.

OR

BIOL 172 Introductory Biology II (3 cr.)

Pre: CHEM (131, 151, 161, 171, or 181A), concurrently, or consent.
Co-requisite: 172L.

BIOL 172L Introductory Biology II Lab (3 cr.)

Pre: CHEM (131, 151, 161, 171, or 181A), concurrently, or consent.
Co-requisite: 172.