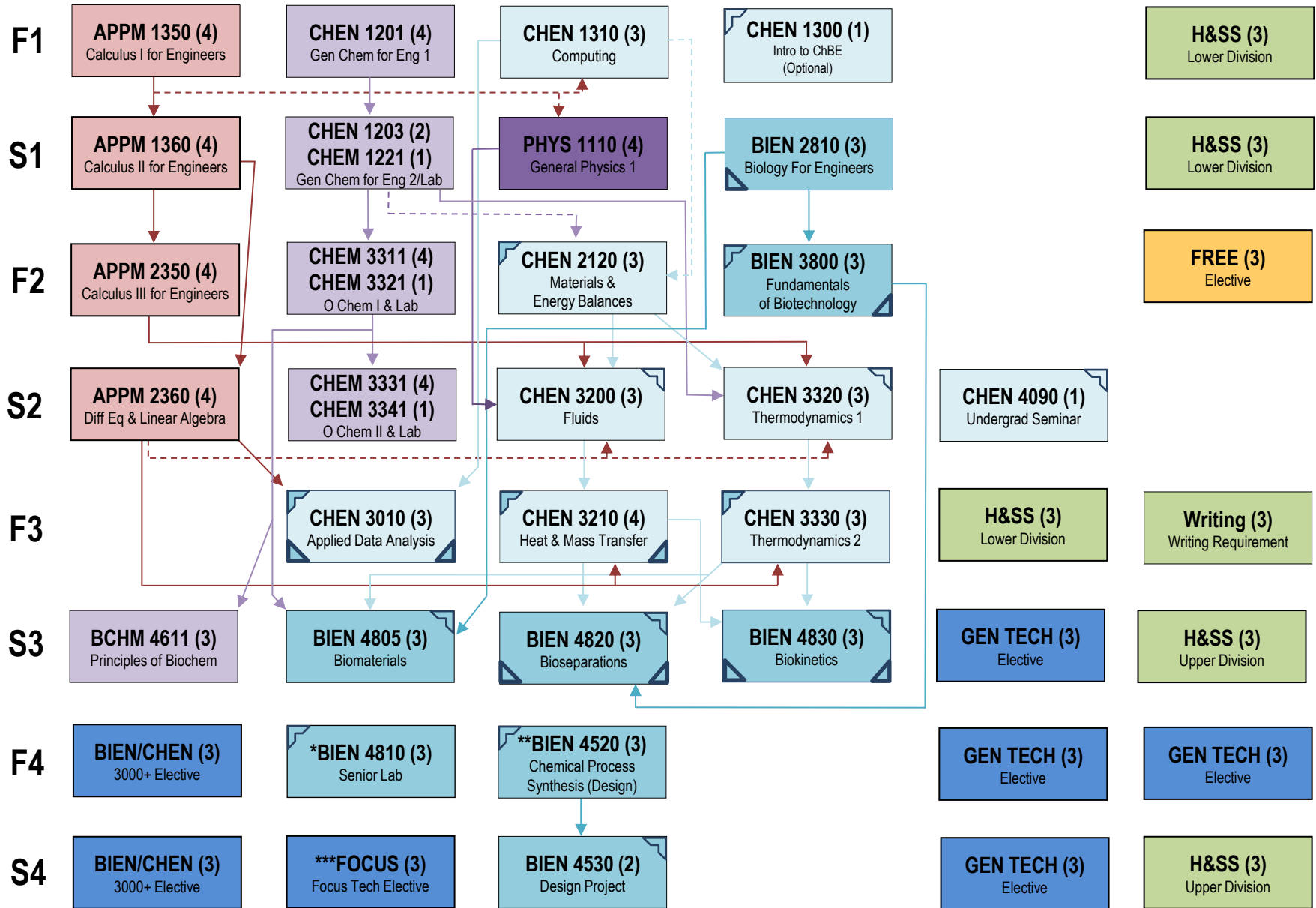








# BIOLOGICAL ENGINEERING CURRICULUM (4-Year Plan)



\*Complete  courses before BIEN 4810    \*\*Complete  courses before BIEN 4520     Denotes prerequisite sequence     Denotes prereq/coreq sequence     Denotes Spring Only Course     Denotes Fall Only Course

## Accepted Course Substitutions

BIEN 2810 – MCDB 1150 or EBIO 1210 AND 1220

BIEN 3800 – MCDB 2150

CHEN 3200 – MCEN 3021

## Writing Requirement

The Writing Requirement can be fulfilled by ENES 1010 (first-year students only), ENES 2000, ENES 3100, PHYS 3050, WRTG 3030, WRTG 3035, or ENLP 3100.

## Humanities & Social Science Electives

Please refer to the ChBE Undergraduate Advising page at <http://www.colorado.edu/chbe/academics/undergraduate-program/current-students>.

## General Technical Electives

Please refer to the ChBE Undergraduate Advising page at <http://www.colorado.edu/chbe/academics/undergraduate-program/current-students>.

## \*\*\*Focus Tech Elective

BIEN-BS students can take one of the below

- BIEN 4801 (3) – Pharmaceutical Biotechnology (P/C: BIEN 4830 or CHEN 4330)
- BIEN 4802 (3) – Tissue Engineering & Biomedical Devices (P: BIEN 2810 or equivalent, Department restrictions apply)
- BIEN 4803 (3) – Metabolic Engineering (P: BCHM 4611)
- BIEN 4804 (3) – Protein & Enzyme Engineering (P: BIEN 2810, BIEN 4820, and BCHM 4611)
- BIEN 4806 (3) – Immunoengineering (P: BIEN 2810 or MCDB 1150 and CHEN 4330 or BIEN 4830)
- BIEN 4838 – Special Topics courses will be added to the options intermittently

These courses are offered on a rotating basis. Please note that this means you may not always be able to take the specific course you want. If possible, we recommend completing the pre-requisites well in advance.

## Grade Requirements

The minimum passing grade for prerequisite and corequisite classes in our curriculum is a C-. This includes courses completed outside the department (APPM, PHYS, etc.).

In addition, students need to have a cumulative and major GPA of at least 2.0 in order to graduate from the College of Engineering.