

# Plant Biology Major 4-year plan

## Fall of your first year

Course title	Course number	Former number	Credits
Putting Down Roots in Plant Biology (introductory seminar)	PBIO 1990	(PBIO 095)	1
Exploring Biology (1st half)	BCOR 1400	(BCOR 011)	4
General Chemistry 1	CHEM 1400	(CHEM 031)	4
Foundations: Communication Methods	CALS 1010	(CALS 001)	3
Additional Course – Your Choice: Start your Math sequence: Fundamentals of Calculus I MATH 1212 (formerly MATH 19)* OR take a humanities OR social science course**			3

## Spring of your first year

Course title	Course number	Former number	Credits
Exploring Biology (2 <sup>nd</sup> half)	BCOR 1450	(BCOR 012)	4
General Chemistry 2	CHEM 1450	(CHEM 032)	4
Foundation: Information Technology OR Intro to Programming	CALS 1020 OR CS 1210	(CALS 002) OR (CS 021)	3
Additional Course – Your Choice: Continue your Math sequence (MATH 1212 and 1224) OR take a Diversity D1 or D2 course** OR Written Expression ENGL 1001 (formerly ENGS 001)			3

\*If you would like a firmer foundation before starting Calculus, please take College Algebra MATH 1012, which prepares students for Fundamentals of Calculus I MATH 1212.

\*\*You need to complete 2 courses in Humanities and 2 in Social Science before you graduate. Starting in Fall 2023, these will be called the “Catamount Core” and you will need to choose courses that are specifically marked as Catamount Core to fulfill this requirement. Most Diversity courses (D1 or D2) will also fulfill your breadth requirement in the humanities or social sciences. Check that your Diversity courses are approved for the Catamount Core! Then they can count for both requirements!

**Note:** You will take Sustainability courses as part of your Plant Biology curriculum, so you do not need to fill that requirement your first year.

→ Use your Diversity or your Humanities and Social Science courses as a way to explore new areas! Sometimes these lead to minors. You are not required to complete a minor, but many students do.

**Fun fact:** you can take a minor outside your college!

Popular minors for PBIO majors include Food Systems, Agroecology, English, Molecular Genetics, and Statistics, but students take many others, such as Philosophy, History, Spanish, Gender and Women’s studies, or Health and Society!

## Fall of your second year

Course title	Course number	Former number	Credits
Putting Down Roots in Plant Biology (introductory seminar) – if you did not take it in your first year	PBIO 1990	(PBIO 095)	1
Genetics	BCOR 2300	(BCOR 101)	3
Organic Chemistry 1	CHEM 2580	(CHEM 141)	4
Plant Systematics	PBIO 2090	(PBIO 109)	4
Additional Course – Your Choice: Complete your Math sequence if you have not OR take another PBIO course, OR a D1 or D2 course OR ENGL 1001 OR pick a Catamount Core course			3

## Spring of your second year

Course title	Course number	Former number	Credits
Ecology and Evolution OR Cell and Molecular Biology	BCOR 2100 OR BCOR 2500	(BCOR 102) OR (BCOR 103)	4
Organic Chemistry 2	CHEM 2585	(CHEM 142)	4
Plant Physiology	PBIO 2040	(PBIO 104)	4
Additional Course – Your Choice: Complete your Math sequence if you have not OR take STAT 1410 OR complete your other Diversity or Catamount Core requirements OR another PBIO course			3

**Note:** BCOR 2100, 2300, and 2500 can be taken in any order. If you need to cut something out of either semester in your second year to provide room for something else, or just to decrease your course load, you can save BCOR 2100, 2300, or 2500 for another semester. BCOR 2100 and 2300 are taught in both Fall and Spring; BCOR 2500 is taught only in Spring.

## Goals to complete by the end of Year 2

- Introductory seminar: Putting Down Roots in Plant Biology (PBIO 1990)
- Intro Bio sequence (BCOR 1400/BCOR 1450 or BIOL 1400/BIOL 1450)
- Plant Physiology (PBIO 2040) and Plant Systematics (PBIO 2090)
- 2<sup>nd</sup> year BCOR courses: Genetics (BCOR 2300) and either Ecology and Evolution (BCOR 2100) or Cell and Molecular Biology (BCOR 2500)
- 4-semester Chem sequence: General (CHEM 1400, 1450) and Organic (CHEM 2580, 2585)
- Calculus (MATH 1212 and 1224)
- Communication requirements: Foundations (CALC 1010) and Written Expression (ENGL 1001)
- Information Technology requirements: Foundation: Information Technology (CALC 1020) or Intro to Programming (CS 1210)

## Third and Fourth Years

Your final two years are more flexible. There are two requirements for specific semesters:

- Physics (1400) in the Fall of your third year
- **Plant Biology Capstone (P BIO 4899)** in the Spring of your fourth year

Apart from these two prescribed courses, you can design your schedule to meet the following goals:

### Remaining requirements to complete before graduation:

- STAT 1410 (if you have not already taken it)
- D1 or D2 courses to complete your Diversity requirement
- Humanities and Social Science requirements (2 each) – “Catamount Core”
- Any “Goals to complete by the end of Year 2” that you haven’t yet met

### Electives!

This is also your time to take Electives! These are 100-level or 200-level Plant Biology courses or other courses related to your Plant Biology interests and goals. They fall into 3 groups:

- P BIO courses at the 2000-level or above (6 credits) (Note: this can include 3000-level P BIO)
- P BIO courses at the 3000-level or above (6 credits) (Note: this can include 5000-level P BIO graduate courses with instructor permission)
- 12 credits of additional upper-level coursework. These can be P BIO courses OR can be courses in other departments related to your P BIO interests.

→ Be sure to check the prerequisites before taking an upper-level course! Make sure you have the background you need to be successful!

#### Examples of non-P BIO electives:

- MMG 2010 (formerly 101) Intro to Microbiology (yes, plants interact with bacteria too!)
- BIOL 3100 (formerly 269) Plant-Animal Interactions
- PSS 2610 (formerly 161) Fundamentals of Soil Science
- BIOL 4260 (formerly 254) Population Genetics
- MMG 3310 (formerly 231) Bioinformatics
- Take a different BCOR than the one you applied to your requirements. Ex: if you chose BCOR 2100, you could now take BCOR 2500 and apply it to your electives
- And many others!

**Note: Undergraduate Research (P BIO 2995 and 3995)** can count to fill the P BIO electives. These can be started at any time – you just need to find a faculty mentor to work with. Students conduct research under faculty supervision on one of their projects or on a related project. Students often do only 1 or 2 credits of research a semester, but sometimes as many as 3 or 4. Be sure to discuss with your faculty mentor how many hours of work they expect for a credit → 3 or 4 hours a week per credit is a common expectation.

*Keep going with your electives! Complete your Catamount Core requirements! Complete a minor! Do research or an internship! Have fun following your interests!*