

Major Course Requirements

A minimum of 91 hours (30-40 upper-division hours)

► **Required Core Courses (64 hours):**

BIOL 111-112-113	Biological Foundations I,II,III	5+5+5
BIOL 221 + 222	Intro to Research Methods I, II	2+2
BIOL 412	Research	2
CNTC 201	Principles of Conservation Tech (+lab)	3
CNTC 301	Applications of Conservation Tech	2
CNTC 301L	Applied Conservation Tech Lab	2
CNTC 490	Conservation Technology Capstone	1
CNTC 494	Internship	4
DTSC 101	Intro to Data Science (+Lab)	4
DTSC 201	Fundamentals of Data Science (+Lab)	4
DTSC 215	Frmwrks & Libs for Data Sci	4
DTSC 323L	Statistical Methods in Data Sci Lab	1
DTSC 420	Machine Learning	3
ENVR 360	Conservation Biology (+lab)	3(+1)
INFS 115	Intro to Programing	4
INFS 240	Intro to GIS	2
INFS 340	Intermediate GIS	2
STAT 322	Statistical Methods	2

► **Required Core Electives (30 hours):**

At least four classes from the following list:

BIOL 233	Ecology	4
BIOL 323	Vertebrate Biology	4
BIOL 325	Flowering Plants	3
BIOL 331	Marine Biology	4
BIOL 338	Field Biology	3
ENVR 361	Energy and Climate Change (+lab)	3(+1)
ENVR 362	Pollution and Env Quality (+lab)	3(+1)
DTSC 425	Legal and Ethical Aspects of Data	3
MATH 131	Calculus I	4
PLSC 329	Environmental Policy	3

► **Required Cognate Courses (15 hours)**

CHEM 111+L	General Chemistry I+Lab	4+1
CHEM 112+L	General Chemistry II+Lab	4+1
CHEM 113+L	General Chemistry III+Lab	4+1

Student Learning Outcomes

Students can:

- Students will understand what conservation technology is, how it can be used to address big environmental issues, and how it translates into professional employment
- Students will gain hands-on experience using different conservation technologies in the field and laboratory and will develop in-demand skills
- Students will gain insight into how conservation technologies are being developed by the environmental and conservation world itself, and will be on the cutting edge of technology development and application
- Students will understand and use conservation technology to address key PUC management and sustainability issues

Occupational Information

What can I do with this major?

Jobs in Environmental, Conservation, and Sustainability fields, including for-profit, nonprofit, academic, and government.

Additional Education Required?

No, but will prepare students for advanced training in Conservation Technology if they desire to continue their education.

Job Outlook

In an emerging field, Students will be immediately competitive in the job market after completion of this Major.

General Education Requirements

To view general education requirements for this major, please refer to page A-01, Summary of General Education Requirements: B.S. Degree.

How to Construct Your Own Program

1. Consult with your academic advisor.
2. Consider your aptitudes, interests, and available courses.
3. Schedule major courses and cognates first.
4. Fill the rest of your schedule with G.E. requirements.
5. For the freshman year include College English I and II and Religion courses. Also include Basic Algebra I+II unless waived by previous work.

What the Degree Includes

- A total of 192 quarter hours including:
1. A minimum of 60 upper division hours.
 2. General Education requirements.
 3. Major requirements.
 4. Minimum 2.0 GPA, overall and major.

For More Information

Visit our website: www.puc.edu/academics/departments/biology
 email: biology@puc.edu

Sample Four-Year Program

This sample curriculum shows you how a program may be constructed, emphasizing the science components. Your program may differ, but be sure to consult your advisor.

First Year	F	W	S
Biological Foundations I,II,III*	5	5	5
Intro Data Science	4	-	-
Religion Courses	3	3	-
College English I, II	4	4	-
Intro to Statistics	-	-	4
Intro to Programming	-	-	4
Excercise Science Activity	-	-	1
General Education/Electives	-	11	2
	16	16	16
Second Year	F	W	S
Principles of Con Tech (+lab)	3	-	-
General Chemistry I,II,III*	5	5	5
Intro to GIS	2	-	-
Introduction to Research Methods I,II	2	2	-
Frameworks and Libraries	4	-	-
Foundations of Data Science	-	-	4
General Educaiton/Electives	-	9	7
	16	16	16
Third Year	F	W	S
Conservation Biology+Lab	4	-	-
Intermediate GIS	-	-	2
Applications of Conservation Tech	-	2	-
Applied Conservation Tech Lab	-	-	2
Statistical Methods	-	3	-
Statistical Methods in Data Sci Lab	-	1	-
General Education/Electives	12	10	12
	16	16	16
Fourth Year	F	W	S
Biology Research*	-	4	-
Machine Learning	-	3	-
Conservation Tech Internship*	4	-	-
Conservation Tech Capstone	-	-	1
General Education/Electives	12	9	15
	16	16	16

* Biological Foundations or General Chemistry should be taken during the first two years, but only in the same year by students who are well prepared, highly motivated and disciplined. If taking more chemistry than biology electives, General Chemistry should be taken first and Biological Foundations later.

** Needed only if High School chemistry is weak.

*** See the front of this sheet for a list of Environmental Studies electives.