



College of Biological Sciences (CBS)

Family Orientation 2019

The CBS Associate Dean is Michele Igo
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We know our students worked hard to join our College

The “right” major is the one a student gladly spends time studying

“Don't ask yourself what the world needs. Ask yourself what makes you come alive and then go do that. Because what the world needs is people who have come alive.”

- Dr. Howard Thurman

Passion for the subjects connects students to faculty and carries students through the difficulty of higher academics.

Each step up the academic ladder from high school to university to graduate or professional school is progressively more difficult. Recognize that students need a lot of study time and that it may take a while to adjust to the new level of difficulty.

The university teaches people how to think and provides opportunities to practice.

Students are given a general foundation, but they also choose the area of biology they want to understand deeply. This area will be their “**major.**”

A “**major**” is a program of courses that the faculty designed to produce this deep understanding. Professors often revise and modernize their majors.

Faculty are housed in departments.

Departments host majors, but have different names from the major.

Department codes help identify classes.

Departments	Majors
Evolution and Ecology (EVE)	Evolution, Ecology and Biodiversity (EEB)
Microbiology and Molecular Genetics (MMG)	Microbiology (MIC)
Molecular and Cellular Biology (MCB)	Biochemistry and Molecular Biology (BMB) Cell Biology (CBI) Genetics (GGN)
Neurobiology Physiology and Behavior (NPB)	Neurobiology Physiology and Behavior (NPB)
Plant Biology (PLB)	Plant Biology (PLB)
College wide major, (so no Dept. code)	Biological Sciences (BIS)
A cross-college major—no Dept code	Coastal and Marine Sciences (CMS) where CBS host the Marine Ecology and Organismal Biology track

College of Biological Sciences Quick Facts

47% of CBS undergraduates participated in research and 71% in an internship (2017-18)

Values
Scientific innovation and discovery
Highest standards of excellence in:
Teaching
Research
Community Involvement

Over 40,000 alumni

9 Majors and
7 Minors

2 Degree
Options: A.B. and
B.S.

5 Departments

Majors differ in the way they ask questions. Do students prefer “how” questions or “why” questions? What sort of research problems are interesting?

Students are choosing a model system for learning how to think, so they should choose a fascinating system.

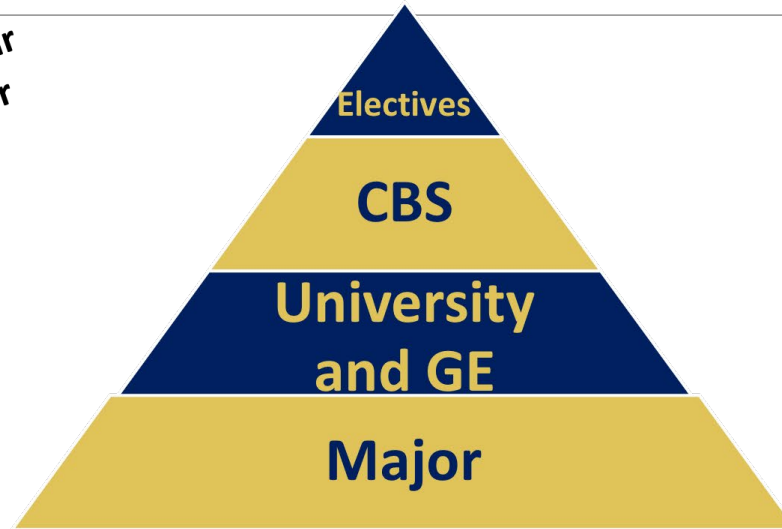
All majors in CBS are “pre-med” majors and students outside biology can apply to medical school if they take the required classes.

CBS wants students to be successful and have degrees that will open doors in the future.

Students can change majors after 1 quarter.

College of Biological Sciences (CBS) Degree Requirements Structure

*There's more to your
degree than major
requirements!*



**Total Units:
180**

**15 units on
average
needed each
quarter to
total 180 units**

**How do students figure out what courses to take?
Talk to a BASC advisor.**

Lower Division CBS STEM Core

Freshmen/Sophomores

Biological Sciences (BIS) 2A, 2B, 2C

Chemistry (CHE) 2A, 2B, 2C

**Mathematics (MAT) 17A, 17B, 17C or
(MAT) 21A, 21B,**

Physics (PHY) 7A, 7B, 7C

You should plan to:

- complete these requirements by the end of your sophomore year. (~2 STEM/quarter).
- take an average of 15 units every quarter.

Fall 2019 Scheduling Preparation: What types of courses should I take?

PLAN A

Major Course

Major Course

GE

- If ELWR is not satisfied, ELWR course; If satisfied, Lower Division Composition or GE

BIS 5 or First Year

Seminar

APPROX. UNITS: 15

PLAN B

Major Course

GE

GE

- If ELWR is not satisfied, ELWR course; If satisfied, Lower Division Composition or GE

BIS 5 or First Year

Seminar

APPROX. UNITS: 15

PLAN C

GE

GE

GE

- If ELWR is not satisfied, ELWR course; If satisfied, Lower Division Composition or GE

Non-Major or GE

BIS 5 or First Year

Seminar

APPROX. UNITS: 15

General Education Classes: CBS students are encourage to select their GE classes based on interest and should sample broadly.

How should A STUDENT approach a program of study?

- Develop an individual description of an educated person. CBS students learn biology but need to decide what else they want to know.
- Should they study art, architecture, music, sociology, or literature? Should they speak another language or study anthropology? What electives suit them to the life they envision?
- Students have 4 years to lay the educational foundation for the person they want to become. They need to make sustained progress toward their degrees by taking majors classes and electives.

CBS encourages students to think carefully about electives.

We contributed to 4 electives that we believe will be helpful:

Classics 30 explains the Greek and Latin roots of language and incorporates a lot of biological terms.

Philosophy 31 introduces freshmen to scientific reasoning and analysis, useful for exams such as the MCAT (other good choices are PHI 5 or 12).

History 2/STS 2 is “Introduction to the History of Science and Technology.” The course has a strong critical reasoning component, useful for exams such as the MCAT. It will be offered in Spring 2018.

Philosophy 15 introduces freshmen to Bioethics.

Students should **select other electives based on interest** and should sample broadly. There are many good choices, including music, dance, art history, languages, and studies of other cultures. **What does the person a student wants to become know about?**

Research the rules, ask questions, seek help:

- **Any grade below a C (2.0 GPA) is not adequate for "good standing."**
- ~~Some professional schools do not accept applications from students with grades below a C in biology, chemistry, math, etc.~~
 - If you get a C- in a class required for professional school, you cannot repeat the course at UC Davis; repeat Ds and Fs
- Look at the application rules for future programs early on.
- Contact information for future careers are in your handbook; see videos on the BASC website.
- Read the course syllabi and understand the grading schemes.
- Read about drop deadlines; incompletes; options for repeating classes; the effect of repeats on GPA; retroactive grade actions & withdrawals. Know your options!!

Students should learn to use OASIS, the GPA calculator, and the what-if function.

Students need to be self-motivated

- The classes are much larger than expected--find study groups.

- The material is challenging (13-15 units is plenty).
- Students should expect to analyze, not memorize.

- Students are responsible for finding course materials on the Canvas site and for seeking help.

- The quarter system moves quickly.
- Organization is extremely important.
- A lot of time should be devoted to studying.
- Any grade below a C (2.0 GPA) is not adequate for "good standing."

Students create and rely on a weekly planner

To manage time, consider:

- The Carnegie rule—a student should spend at least two hours working outside class for every hour in class.
- For 15 units, this means 15-20 hours in class (labs) and 30 hours outside class studying.
- This means students should expect a **45-50 hour work week on school alone!!**

Fill in the planner with 15-20 hours in class.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7:00 AM				Chem 2A			
8:00 AM		Chem 2A 5 units					
9:00 AM							
10:00 AM							
11:00 AM							
12:00 AM	UWP 1		UWP 1				
1:00 PM	4 units		4 units				
2:00 PM		Chem 2A lab					
3:00 PM	Classics 30 3 units		Classics 30 3 units		Classics 30 3 units		
4:00 PM							
5:00 PM	Cohort sem. 1 unit						
6:00 PM							
7:00 PM			Chem 2A discussion				
8:00 PM							
9:00 PM							
10:00 PM							

Add 30 hours per week of high quality study time

- Fill in your extra-curricular activities.

Is the plan is realistic?

Delayed gratification now may ensure future success.

Time management from a successful student

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:00 AM							
			PMI 126		PMI 126		
8:00 AM				NPB 100		UCDMC	
9:00 AM		Work at BASC	NPB 140	Work at BASC	Study		
			Office hours				
10:00 AM	Study	Davis Honors Challenge					Study
			NPB 140		NPB 140		
11:00 AM							
12:00 PM	Lunch	NPB 100	Study	NPB 100	Study	Lunch	Lunch
		Office hours		Office hours			
1:00 PM	Relax	Work at BASC		Lunch		Study	Relax
			NPB 100		NPB 100		
2:00 PM	Study			Study			Study
3:00 PM			Work at BASC		Work at BASC		
4:00 PM		PMI 126		PMI 126			Run
		Office hours		Midterm Review			
5:00 PM		Study	Run		Davis Honors Challenge	Run	
6:00 PM		Dinner		NPB 100			Dinner
	Dinner			Midterm Review			
7:00 PM		Davis HOPE	Dinner		Dinner	Dinner	Study
	Gym	Presentation					
8:00 PM		Gym	Davis HOPE	Dinner	Gym	Relax/Social	Relax/Social
			Meeting				
Evening	Study	Study	Study	Study	Relax		

Professors provide useful learning goals

Lecture 14. More on Genetics

- How are the laws of probability applied to offspring formation?
- How does the genotype influence the phenotype?

Students should be able to:

§explain Mendel's two laws

§predict the frequencies of particular offspring genotypes and phenotypes given parental genotypes

§diagram a test cross and explain possible outcomes

§explain the roles of multiple alleles, pleiotropy, and epistasis in determining the phenotype

§differentiate linked and unlinked genes and explain how crossing over affects linked genes

§explain the genetic basis of polygenic traits

How should a student use study hours?

- After each lecture: Meet each learning goal without looking at your notes.
- Review the notes while listening to the podcast and looking at the lecture slide PDFs. Fix the notes – you hear more the second time around.
 - Mark the places where one is confused.
 - Once a student identifies what he/she does not know, it is easy to find additional information via the textbook, office hours, or other resources.
 - There are study questions and practice tests, but the key is to meet the learning goals without using notes.

There is more advice in the student presentation on the BASC website under the Students tab:

<http://basc.ucdavis.edu/students/>

What information on success is available to parents?

The Family Educational Rights and Privacy Act (FERPA) is a federal law that affords parents the right to have access to their children's education records, the right to seek to have the records amended, and the right to have some control over the disclosure of personally identifiable information from the education records.

When a student turns 18 years old, or enters a postsecondary institution at any age, the rights under FERPA transfer from the parents to the student ("eligible student").

Reference:

<http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

There is **one** location for CBS advising: **BASC**

All staff and peer advising takes place in the Biology Academic Success Center (BASC) in Sciences Lab Building, around the corner from the BioBrew Coffee Shop.

Students are called to mandatory advising in the fall/winter.

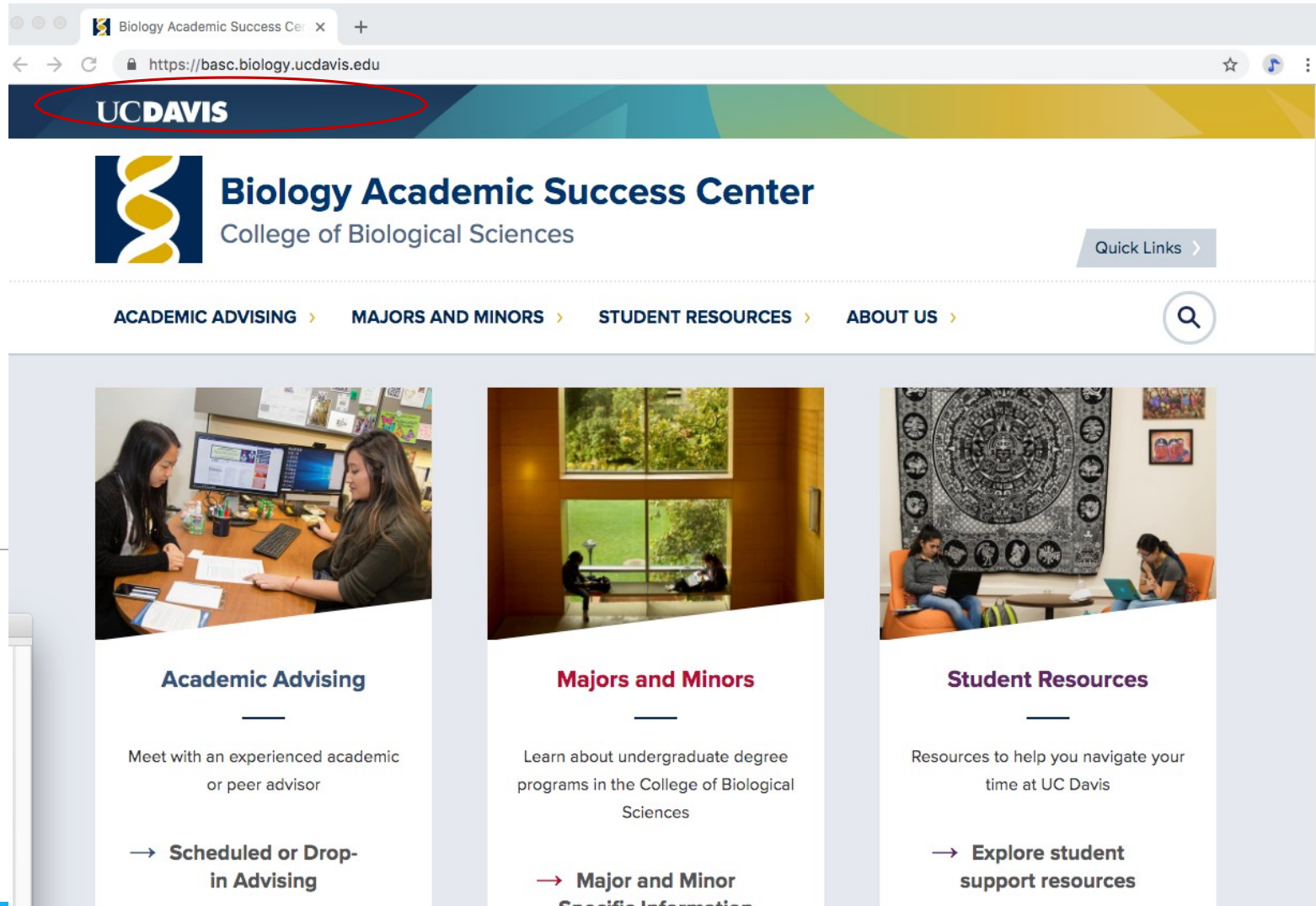
Faculty Master Advisors are associated with each major and can be visited in their departments.



A BASC advisor will help you structure a schedule that works for you and your goals



Check out the BASC website for more information on their many programs



The image shows a screenshot of the Biology Academic Success Center (BASC) website. The browser address bar shows the URL <https://basc.biology.ucdavis.edu>. The website header features the UC Davis logo, the BASC logo (a yellow and blue DNA helix), and the text "Biology Academic Success Center" and "College of Biological Sciences". A "Quick Links" button is visible. The navigation menu includes "ACADEMIC ADVISING", "MAJORS AND MINORS", "STUDENT RESOURCES", and "ABOUT US". The main content area is divided into three columns, each with a photo and a description of a program.

UCDAVIS

Biology Academic Success Center
College of Biological Sciences

Quick Links >

ACADEMIC ADVISING > MAJORS AND MINORS > STUDENT RESOURCES > ABOUT US >

Academic Advising

Meet with an experienced academic or peer advisor

→ **Scheduled or Drop-in Advising**

Majors and Minors

Learn about undergraduate degree programs in the College of Biological Sciences

→ **Major and Minor Specific Information**

Student Resources

Resources to help you navigate your time at UC Davis

→ **Explore student support resources**

Health Professions Advising

Check out the website: hpa.ucdavis.edu

UCDAVIS

UCDAVIS
HEALTH PROFESSIONS ADVISING



[HOME](#) [HEALTH PROFESSIONS >](#) [PRE-HEALTH PROGRAMS >](#) [APPLICATION PREP >](#) [SUCCESS STORIES >](#)



[ABOUT US >](#)



**SUMMER 2019
DROP-IN HOURS**
Tuesday, Wednesday, & Thursday
1090 Orchard Rd | 1 - 5 p.m.



**SCHEDULE AN
APPOINTMENT**

Our Mission

Upcoming Event at HPA



Health Professions Advising presents:

Pre-Med Orientation
Saturday , September 28th
9 am - 1 pm California Hall



Health Professions Advising/@ucd_hpa



hpa.ucdavis.edu



healthprofessionsadvising@ucdavis.edu



1090 Orchard Road


BioLaunch

UC DAVIS COLLEGE OF BIOLOGICAL SCIENCES

BioLaunch: First-Year Experience

https://biology.ucdavis.edu/biolaunch


UC DAVIS

 College of Biological Sciences

Quick Links >

ABOUT > UNDERGRADUATE > GRADUATE > FACULTY > RESEARCH > NEWS > EVENTS >

GIVE >



BioLaunch: First-Year Experience Program

Bio Launch Mentor Collective

How does it work?

- You should have received an email from me providing you with a registration link.
- Once you are registered, you will be asked to complete a survey asking about your background, interests, and what you are looking for in a mentor .
- Based on your answers, you will be connected with a CBS students, who has volunteered to help you learn the ropes at UC Davis.



BIS 005: Exploring Biological Sciences (1) P/NP

Lecture/Discussion class– 1 hour. This course provides students with perspective on CBS and the resources and opportunities that are available at a major research university like UC Davis.

The instructor is Dr. Michele Igo, who is the Associate Dean of the College of Biological Sciences. She will be inviting faculty, researchers, representatives from different campus resources, and other people on campus to talk about the unique opportunities available at UCD.

INCOMING STUDENTS CBS FALL WELCOME

Monday, September 23, 2019: 1:00 - 2:30 p.m.

Life Sciences Building-605 Hutchison Drive

- Dean's Welcome at 1:30 PM
- Desserts and drinks provided.
- *This event takes place just before the Chancellor's New Student Celebration at the UC Davis Pavilion.*

• Pick up your **BioLaunch** T-Shirt

• Meet your **BioLaunch** peers.

• Talk to faculty, post-docs, graduate students, and undergraduates about research opportunities on campus

BIS2 courses are now offered abroad in the summer.



BIS 2A in Ireland in 2019

Beyond the Classroom: Research and Internship Opportunities

There are about **700 biologists** on campus with 125 in CBS.

They offer a wide range of research opportunities **all available to our students.**

There are research and travel grants for students.

- Education Abroad
 - Biology classes are available—BIS 2, BIS 101, etc.
- UCD Washington DC Program
 - Internship e.g. environmental group
- Marine Biology Lab at Bodega Bay (summers)



Rewards: Taste of the field; letter of recommendation(s); expanded skills & contacts

Risks: Time away from studying; balance and time management may be more difficult.

WELCOME TO THE COLLEGE OF BIOLOGICAL SCIENCES!

I am happy to take questions.

To contact the college:

Professor Michele Igo

cbsundergrads@ucdavis.edu

Associate Dean for Undergraduate Academic
Programs