COLLEGE OF BIOLOGICAL SCIENCES (CBS)
FAMILY ORIENTATION

Associate Dean Susan Keen
slkeen@ucdavis.edu
WE KNOW OUR STUDENTS HAVE WORKED HARD TO JOIN US IN CBS AND WE WANT THEM TO SUCCEED.

SUCCESS REQUIRES PASSION FOR THE SUBJECT

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.

If students do not enjoy the work, it will be hard to succeed.

“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
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. Some departments have more than one major.
Departments host majors, but have different names from the major: department codes help identify classes

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

• Differ in the way they ask questions. Do you prefer “how” questions to “why” questions? How do you approach research problems?

• All majors in CBS are considered “pre-med” majors. Visit the Health Professions Advising (HPA) website to see what additional information is available.

• Medical schools and professional schools are increasingly interested in students having a broad outlook so majors such as Plant Biology or Evolution, Ecology and Biodiversity may be ideal choices (or even a major in Music!).

• A backup plan for one’s future is always encouraged.

* Students may change their majors.
All CBS majors have a core curriculum

<table>
<thead>
<tr>
<th>Major:</th>
<th>EEB</th>
<th>PLB</th>
<th>MIC</th>
<th>BIS</th>
<th>NPB</th>
<th>GGN</th>
<th>CBI</th>
<th>BMB</th>
<th>MCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees:</td>
<td>BS and AB degrees possible</td>
<td>BS degree only</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper division</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td>Depth classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>Stats 100, or 102, or 130 A + 130B</td>
<td>Stats 100 or 102</td>
<td>Stats 100</td>
<td>Stats 100 or 130 A + 130 B</td>
<td>Stats 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper division core</td>
<td>BIS 101 + 105</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: BIS 105 may be replaced by BIS 102 + 103 BIS 101 + 105.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: BIS 105 (Biochemistry) may be replaced by BIS 102 + 103. * check professional schools for number of biochemistry courses.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper division cell biology</td>
<td>BIS 104</td>
<td>NPB 110A, + 110B, + 110C.</td>
<td>BIS 104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry series</td>
<td>Chemistry (CHE) 8A + 8B or CHE 118A + 118B + 118C</td>
<td>CHE 118A + 118B + 118C</td>
<td>CHE 8A + 8B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower division core</td>
<td>Biological Sciences (BIS) 2A + 2B + 2C Chemistry (CHE) ) 2A + 2B + 2C Mathematics (MAT) 17A + 17B + 17C or MAT 21A + MAT 21B Physics (PHY) 7A + 7B + 7C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chem 3ABC is an option; 3A for Fall 17
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.

• Consider targeted electives such as Classics 30, Philosophy 15 or 31, or History 2.
SOME PRACTICAL STEPS TO APPROACH A MAJOR:

• Read the campus, college, general education, and major requirements and make a list of what is needed.
• Read the prerequisites for each course and use them to order classes.
• Experiment with the number of science classes each quarter. Start with a small number but be sure to make progress toward your degree.
• Come to mandatory advising with a sense of how the studies are going to obtain individualized advice.
• Consider summer school and the timing for exams such as MCATs or GREs.
• Recognize that a C- is below the acceptable standard of a 2.0 GPA.

Students are responsible for their own education. Each student should think about combining their unique interests to create a future career.
SUCCEEDING REQUIRES HONESTY ABOUT SKILLS & THE DISCIPLINE TO STUDY FOR CLASSES

- The quarter system moves quickly.
- Organization is extremely important.
- A lot of time should be devoted to studying.
- Students should expect to analyze, not memorize.
- The classes are larger than expected so meeting people takes effort.
- Students are responsible for seeking help.
- Students need to find the course materials on the Smartsite or Canvas.
- The material is challenging (13-15 units is plenty).

Students should keep track of their GPAs and use the "what if" function to see how future grades will impact the GPA.
STUDENTS CREATE & RELY ON A WEEKLY PLANNER

When managing time, be aware of the college plans:

• 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.

• Expect a 45-50 hour work week on school alone!!

Using your planner:

• Fill in the 15-20 hours in class and 30 hours per week of high quality study time

• Fill in your scheduled extra-curricular activities around school and see if your plan is realistic.
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM</td>
<td></td>
<td>Chem 2A</td>
<td></td>
<td>Chem 2A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td></td>
<td>5 units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 AM</td>
<td>UWP 1</td>
<td></td>
<td>UWP 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td>4 units</td>
<td></td>
<td>4 units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 PM</td>
<td>Chem 2A lab</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Classics 30</td>
<td>Classics 30</td>
<td>Classics 30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 units</td>
<td>3 units</td>
<td>3 units</td>
<td>3 units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM</td>
<td>Cohort sem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 PM</td>
<td>Chem 2A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>discussion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Sunday</td>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
<td>Saturday</td>
</tr>
<tr>
<td>----------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>7:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SCHEDULE OF A SUCCESSFUL STUDENT**

- **Monday**:
  - PMI 126
  - NPB 100
  - UCDMC

- **Tuesday**:
  - Work at BASC
  - Office hours
  - Study

- **Wednesday**:
  - NPB 140
  - Work at BASC

- **Thursday**:
  - Study

- **Friday**:
  - Lunch
  - Study

- **Saturday**:
  - Study
HOW SHOULD A STUDENT USE STUDY HOURS?

After each lecture:

• 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.

• Start with the textbook
  • Textbooks aren’t novels – you need a reading plan.
  • Read the chapter to confirm knowledge of a topic.
  • Abstract the chapter via headings, main points, and examples.
  • Interrogate the book to find out something.

There is more advice in the student presentation on the BASC website under the Students tab: http://basc.ucdavis.edu/students/
Where should students go for advising?

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. CBS, first-year students are required to complete a mandatory advising session at BASC by February 3rd, 2017.

Faculty Master Advisors are associated with each major and can be visited in their respective departments.
Who should students see for advising?

**Staff & Peer Advisors:**
All our advisers want to help our students succeed, so students should take advantage of the resources.

**Staff advisors at BASC can help in many ways:**
- Mandatory advising
- Academic advice on particular majors
  - Making an academic plan and choosing courses
  - Advice on changing majors
  - Progress toward degrees and GE
- Academic difficulties
  - Leave of absence from school
  - Student petitions
  - Special situations
  - Referrals to other campus services
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").

Beyond the Classroom: Research and Internship Opportunities

There are about 700 biologists on campus with 120 in CBS. They offer a wide range of research opportunities all available to our students.

- **Education Abroad**
  - Study Abroad Program Office is located at 207 Third St.; Ste. 120

- **UCD Washington DC Program**
  - Internship e.g. environmental group

- **Marine Biology Lab at Bodega Bay** (spring and summer quarters)

**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.
COHORT PROGRAM
THE CBS FIRST-YEAR EXPERIENCE
Cohort Grouping – Learning Communities

Freshmen are divided among 6 Cohorts to allow students to meet a smaller core group of CBS peers
Students are grouped by dorm assignment

Tercero and Off-Campus – Bacteria & Archaea (FALL BIS 005)
Segundo – RAS & Excavata (WINTER BIS 005)
Cuarto – Unikonta & Plantae (SPRING BIS 005)

_Housing is assigned in mid-august, stay tuned for BIS 005 class registration info_
BIS 005: EXPLORING BIOLOGICAL SCIENCES (1) P/NP

Lecture – 1 hour. Introduction to UC Davis biology faculty, biology industry, and medical professionals. This course provides students with perspective on the scope of biology and the opportunities that are available at a major research university. To be taken one quarter during first year. Required course materials: i>clicker2.

If you can’t take BIS 005 with your dorm and during your designated quarter, email Karyn O’Hearn <kohearn@ucdavis.edu>

Students should attend the Fall Welcome Breakfast on September 25th, 10-11:30 in the CBS courtyard
STUDENT-FACULTY LUNCHES WILL OCCUR THROUGHOUT THE QUARTER

Discuss biology and life with a CBS faculty member over lunch

• Lunches occur, on average, once a week.
• Stay tuned for emails with available times/dates, and registration instructions
• Any CBS freshman can attend these meetings (Non-Cohort Specific).
• Lunches are limited to the first 15 students who sign-up.
• Lunch is catered to a UC Davis conference room
BIS 2A ACCELERATED COURSE

• Only offered Fall Quarter to students who have an exceptionally strong foundation in the basics of metabolism, heredity & cell structure.
  
  • Admission to BIS 2A Accelerated course:
    • 4 or 5 on AP Biology exam
    • 6 on IB Higher Level Biology exam
    • Pass Placement Exam at UCD offered the week prior to instruction
    • To take Placement Exam, email Erin Easlon: bistwoa@ucdavis.edu
SPECIAL CO-CLASS OPTION: FOR STUDENTS PLACING INTO WORKLOAD CLASSES (ALEKS, WORKLOAD ENGLISH OR WORKLOAD MATH)

- Eligible students will receive an email invitation.
- Students enroll in workload classes, an Introductory Biology or chemistry class, and a special co-class (BIS 98) designed to support them in higher academics.
- There are limited number of places in this co-class program, so students indicated interest at my presentation. If we have too many applicants we will select entrants at random and keep a wait list of those not selected.
WELCOME TO THE COLLEGE OF BIOLOGICAL SCIENCES!

I WILL BE HAPPY TO TAKE QUESTIONS