Welcome to UCSC MCD Biology!
Housekeeping items:

1. The presentation will take about 40-45 minutes, so if you have questions, please write them in the Q&A section (you are muted). We’ll review questions at the end of the presentation and answer the ones that weren’t addressed.
2. Please keep your camera off during the presentation to help the internet connection of the hosts.
3. If you have a very personal question, please double check your privacy settings before asking (FERPA law).
4. You don’t need to take notes; this presentation will be sent to you so you have access to all the links.
5. Please be mindful that this is a supportive space for students to learn more about the MCD-BIO department. The University of California, Santa Cruz is committed to promoting and protecting an environment that values and supports every person in an atmosphere of civility, honesty, cooperation, professionalism and fairness. UC Santa Cruz expects that every campus member will practice these Principles of Community: [https://www.ucsc.edu/about/principles-community.html#:%3A:text=We%20strive%20to%20be%3A%20consideration%20for%20our%20differences](https://www.ucsc.edu/about/principles-community.html#:%3A,text=We%20strive%20to%20be%3A%20consideration%20for%20our%20differences).
6. You can also review the POLICY ON STUDENT CONDUCT AND DISCIPLINE: [https://deanofstudents.ucsc.edu/student-conduct/student-handbook/100.003.pdf](https://deanofstudents.ucsc.edu/student-conduct/student-handbook/100.003.pdf)
Who are your major advisers?

Olivia, Brenna, Dianne and Carrie want to ensure your success at UCSC! Aaron can help Human Biology declared majors find internships!
First, a note about COVID-19

We are still in Stage 2 of the California Resilience Roadmap to Recovery, so as we know now, courses offered during fall quarter will be remote. Please watch emails from ucsc for further updates.

For always-current information, check out the UCSC Covid-19 Information page!

Remote Learning Resources for Students
Second, Recommendations for Success!

We polled seniors who graduated this spring with honors and asked them what they would tell incoming students:

★ Go to advising early and read emails from advising!

★ Attend office hours. Even for professors not in your major. This is one of the best ways to get research opportunities, and to get letters of recommendation. No one ever goes to office hours, so don't think that you're above that.

★ Stay connected to your professors, ALWAYS attend office hours and have ANY question ready to ask, as it pays a lot and your name is remembered by the end of the quarter.

★ Engage with your professors and peers, and make connections. UCSC is a world class research facility and you have access to both current and future leaders in multiple fields, which is a rarity outside of academia. Realize that your professors know you are not an expert, and also that your professors are people too; office hours are a way to sit and talk with someone about their research, your interests, and what their experiences were like as an undergrad. This will also help open the doors to research opportunities and joining a lab, which is key to rounding out your undergraduate experience; classes and good grades are only a part of being a student. Usually the hardest part for a new student is the first time going to office hours; go with a friend, bring homework or class notes, read their papers on their lab website, whatever will make you comfortable. Doing this early on will help make it easier as you continue your undergraduate experience.

★ The first quarter is the most difficult, so take time to get used to the campus and learn the layout of the campus; you will learn new things about UCSC the whole time you are here, so don't worry too much about learning everything. During that first quarter, absorb not only what you are learning but how the courses are taught; this might be different than what you are used to but there is a general flow to courses here that you will learn, which helps with planning a schedule. And on planning, be sure to find a structure that works for you and stay ahead as much as possible of the material.
Recommendations for Success (cont.)!

★ Join as many clubs as possible! I joined 4 clubs my senior year and I met so many people. My freshman year, I didn't join that many clubs and didn't get to know many people. It's the best way to find friends!

★ UCSC also has tons of amazing classes outside of STEM that you can't find anywhere else. Most impactful for me were Monsters, The History & Culture of Espionage, Campus Architecture, and Harry Potter. Don't neglect your GE's or the opportunity to broaden your mind!

★ I recommend checking out the book An Unnatural History of UCSC, available at the Bay Tree Bookstore. It's a student-written guide to everything wacky and cool around campus, including secret spots in the forest, beautiful look-out points, and interesting histories. It will make you look at campus a bit differently :)  

★ The city itself has a lot to explore. The UCSC orientation website has a list of 140 Things to Do Before You Graduate, and I referenced it often during my 4 years. College would not be the same without trips to the boardwalk, tea ceremonies with friends, outrigger paddling lessons, and fire-themed art festivals!

★ Also, don't forget about the Recreation Office offerings. Beyond fitness classes, they have weekend camping adventures, mushroom foraging, kayaking, surfing, and so much more.

★ Basically, TAKE ADVANTAGE of your resources! Because there are plenty :)
Next, and more importantly: What do I enroll in for the fall?

The Department of Molecular, Cell, and Developmental (MCD) Biology has 4 majors and a minor. Use the Academic Planning Website to work on planning your qualification classes. Click on the tabs at the bottom of the to see the checklists for each major.

Here are the Learning Outcomes for each major.

Always consult with the UCSC 2020-21 Course Catalog for policy information!
The good news is that the qualification policy to declare are nearly identical for all four majors!

1. **COURSES** - 8 TOTAL:
   - CHEM 1A, 1B, 1C, and 8A
   - BIOL 20A, BIOE 20B, BIOL 20L
   - MATH 11A or 19A

2. **TIMING:**
   - These courses must be **completed** by the end of your 5th quarter so that you can declare in your 6th.
Qualification Policy Continued

3. GRADES:

- Grades of C or better in these 8 courses for MCD, Neuroscience, & Biology BS majors
- Grades of C+ or better in these 8 courses for Human Bio majors
- No more than 1 non-passing grade in any qual course

4. LOCATION:

- Once matriculated at UCSC, BIOL 20A, BIOL 100, BIOL 101, BIOL 105 and BIOL 110 must be completed at UCSC (or with permission from the MCD faculty adviser)
We strongly recommend taking a math class first quarter

If you have Math AP Credit:

<table>
<thead>
<tr>
<th>AP Exam:</th>
<th>Score:</th>
<th>Credit for:</th>
<th>Enroll in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calc AB</td>
<td>3</td>
<td>Math 3</td>
<td>11A/19A</td>
</tr>
<tr>
<td>Calc AB</td>
<td>4 or 5</td>
<td>11A/19A</td>
<td>11B/19B</td>
</tr>
<tr>
<td>Calc BC</td>
<td>3</td>
<td>11A/19A</td>
<td>11B/19B</td>
</tr>
<tr>
<td>Calc BC</td>
<td>4 or 5</td>
<td>11B/19B</td>
<td></td>
</tr>
</tbody>
</table>
If you need to take the ALEKS online assessment and learning tool:

- ALEKS is an online assessment and learning tool that provides math instruction.
- After your first assessment, you can continue to use ALEKS to work on improving your math skills.
- You can even improve your math placement for fall enrollment.
- Take up to 5 assessments; your highest score will be used to satisfy your math enrollment prerequisites.
More about ALEKS

Places you into MATH 2, or MATH 3, or MATH 11A/19A/20A

Math 11 series – standard Calculus series that most Bio majors take

Math 19 series – Calculus series required by Physics and Engineering; this series is more challenging

Math 20 series – Honors level Calculus

<table>
<thead>
<tr>
<th>ALEKS Score</th>
<th>MP Tier</th>
<th>Math Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 60</td>
<td>100</td>
<td>MATH 2</td>
</tr>
<tr>
<td>60-69</td>
<td>200</td>
<td>MATH 3</td>
</tr>
<tr>
<td>70-74</td>
<td>300</td>
<td>MATH 11A</td>
</tr>
<tr>
<td>75-84</td>
<td>400</td>
<td>MATH 11A or MATH 19A</td>
</tr>
<tr>
<td>85-100</td>
<td>500</td>
<td>MATH 11A, 19A, or 20A</td>
</tr>
</tbody>
</table>
Chemistry

- Chem 1A
  - Pre-reqs: previous or concurrent enrollment in MATH 3 (or equivalent), or a math placement score of 300+

- Chem 1B
  - no pre-reqs, some high school chem recommended

- Optional Chemistry Self-Assessment
Chemistry Self Assessment

Students who want to make sure they are prepared for the introductory general chemistry sequence are encouraged to take the Chemistry Self-Assessment offered in Canvas (Online Learning Management System utilized by UCSC to create and manage lessons, courses, quizzes and other course materials). Your score on the exam will help you determine when to take general chemistry.

Assessment Guidelines:

- You may use a calculator and periodic table when taking the assessment.
- The exam consists of 42 multiple choice questions.
- There is no time limit, you may take as long as needed to complete the exam.
- You will receive immediate feedback after submitting your exam.
- The assessment is advisory, not required to enroll.
- Any UCSC student with an active CruzID Gold password may take the assessment.

https://www.chemistry.ucsc.edu/academics/undergraduates/First%20Year%20Students/chemistry_self_assessment.html
So, what classes should I enroll in this Fall?
# Qualification Sample Schedules for student placing into MATH 2

<table>
<thead>
<tr>
<th>1st &amp; 4th Quarters</th>
<th>2nd &amp; 5th Quarters</th>
<th>3rd &amp; 6th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MATH 2</td>
<td>1. MATH 3</td>
<td>1. MATH 11A or 19A</td>
</tr>
<tr>
<td>2. GE/Major Exploration (ME) or writing</td>
<td>2. CHEM 1B (+1M for Human Bio)</td>
<td>2. CHEM 1A</td>
</tr>
<tr>
<td>3. COLL 1 (core)</td>
<td>3. GE/Writing or ME</td>
<td>3. GE/Writing or ME</td>
</tr>
<tr>
<td><strong>1st Year</strong></td>
<td><strong>2nd Year</strong></td>
<td></td>
</tr>
<tr>
<td>1. CHEM 1C &amp; N</td>
<td>1. CHEM 8A &amp; L</td>
<td>1. CHEM 8B</td>
</tr>
<tr>
<td>2. BIOL 20A</td>
<td>2. BIOE 20B</td>
<td>2. BIOE 20C or MATH 11B or 19B</td>
</tr>
<tr>
<td>3. GE or ME</td>
<td>3. BIOL 20L (2 units)</td>
<td>3. GE or ME</td>
</tr>
<tr>
<td><strong>2nd Year</strong></td>
<td><strong>3rd Year</strong></td>
<td>DECLARE MAJOR!</td>
</tr>
</tbody>
</table>

For sample 4-year plans, check out our [Academic Planning website](#) and click on your proposed major under #5: Sample Plans
### Qualification Sample Schedules for student placing into MATH 3

<table>
<thead>
<tr>
<th>1st &amp; 4th Quarters</th>
<th>2nd &amp; 5th Quarters</th>
<th>3rd &amp; 6th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MATH 3</td>
<td>1. MATH 11A or 19A</td>
<td>1. BIOL 20A</td>
</tr>
<tr>
<td>2. GE or Major Exploration (ME)</td>
<td>2. CHEM 1A (prerequisite = MATH 3)</td>
<td>2. CHEM 1C/N</td>
</tr>
<tr>
<td>3. COLL 1 (core)</td>
<td>3. GE or ME or writing</td>
<td>3. GE or ME</td>
</tr>
</tbody>
</table>

1. CHEM 1B (+ 1M for Human Bio)
2. BIOE 20B
3. BIOL 20L (2 units)
4. GE or ME

1. CHEM 8A & L
2. MATH 11B or 19B
4. GE or ME

1. CHEM 8B
2. BIOL 105
3. GE or ME

DE Mandate!

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For sample 4-year plans, check out our [Academic Planning website](#) and click on your proposed major under #5: Sample Plans
# Qualification Sample Schedule for students placing into MATH 11A or 19A

<table>
<thead>
<tr>
<th>1st &amp; 4th Quarters</th>
<th>2nd &amp; 5th Quarters</th>
<th>3rd &amp; 6th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MATH 11A or 19A</td>
<td>1. BIOL 20A</td>
<td>1. BIOE 20B</td>
</tr>
<tr>
<td>2. CHEM 1A</td>
<td>2. CHEM 1C/N</td>
<td>2. BIOL 20L (2 units)</td>
</tr>
<tr>
<td>3. COLL 1 (core)</td>
<td>3. GE or Writing or Major Exploration (ME)</td>
<td>3. CHEM 1B (+ 1M for Human Bio)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. GE or Writing or ME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st Year</th>
<th>2nd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MATH 11B or 19B</td>
<td>1. BIOL 105</td>
</tr>
<tr>
<td>2. CHEM 8A &amp; L</td>
<td>2. CHEM 8B</td>
</tr>
<tr>
<td>3. GE or ME</td>
<td>3. GE or ME DECLARE MAJOR!</td>
</tr>
</tbody>
</table>

For sample 4-year plans, check out our [Academic Planning website](#) and click on your proposed major under #5: Sample Plans
To see the checklists for each major: https://mcd.ucsc.edu/academics/undergraduate/advising/academic-planning1/index.html

All MCD-sponsored majors have similar math, bio, chem, and physics requirements. No need to choose your major in your first year!
Sample MCD Biology Prerequisite Chain

Organization of MCD Biology majors

All MCD majors have similar lower-division math, chem, bio & physics requirements

Same upper-division biochem, genetics, cell and molecular biology requirements

No need to choose major in your first year!

To see the checklists for each major:
https://mcd.ucsc.edu/academics/undergraduate/advising/academic-planning1/index.html

PUT JOHN’S COLORFUL CHART HERE!
Once matriculated, a student must receive permission from the department to satisfy the BIOL 20A, BIOL 100, BIOL 105, BIOL 101, and BIOL 110 requirements with courses taken at other institutions. Use the Exception to Policy form.

Other lower division courses can be completed at California Community Colleges by using Assist.org to determine if the course articulates. Make sure to have an official transcript sent once the course is completed.

Other Upper division courses will need to be reviewed by a faculty adviser. Use the MCD Articulation Request form.
What else do I need to know about my major?
1. Biological Sciences Majors are rewarding and RIGOROUS! Expect to spend 3 hours **per unit** each week STUDYING! For Example: CHEM 1A = 5 units x 3 hours = **15 hours per week per class.** (X 3 classes = 45 hours!)

2. We recommend taking no more than 2 STEM courses (10-12 units) each quarter!

3. And remember: You must take ALL major courses for a letter grade.
When do I declare my major?

How will I know I am qualified?
MCD Qualification Policy Review

- **CHEM 1A, 1B, 1C, 8A, BIOL 20A, BIOE 20B, BIOL 20L, MATH 11A or 19A**
- Grades of **C or better** in these 8 courses for MCD, Neuroscience, & Biology BS majors. Grades of **C+ or better** in these 8 courses for Human Bio majors
- Freshmen must **complete** all qualifying classes by their 5th quarter so they can petition to declare by their **6th quarter**.
- BIOL 20A, BIOL 100, BIOL 105, BIOL 101, and BIOL 110 must be taken at UCSC
- Check our [MCD Major Qualification page](#) for details and to get the declaration link
1. Check out websites first - there is a lot of information on our department website:
   a. For help planning your major, check out the MCD department’s planning page. You can open a blank electronic four-year academic plan, find the checklist for your chosen major, and find sample plans
   b. You can research MCD Biology faculty to see what their specialties are and see what kind of scientific research is being conducted

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### UCSC Academic Planning Form

<table>
<thead>
<tr>
<th>Name:</th>
<th>Moo Cowbell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student ID:</td>
<td>1010101</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:mcowbell@ucsc.edu">mcowbell@ucsc.edu</a></td>
</tr>
<tr>
<td>Major(s)/Minor(s):</td>
<td>Biology BS</td>
</tr>
<tr>
<td>Major Adviser:</td>
<td></td>
</tr>
</tbody>
</table>

This form is being completed for the following purpose: For students' own use (no signature required).

<table>
<thead>
<tr>
<th>College:</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1st year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>2nd year</th>
<th></th>
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</thead>
</table>

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### Biology BS (2020-21)

<table>
<thead>
<tr>
<th>Lower Division Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus:</td>
</tr>
<tr>
<td>General Chem:</td>
</tr>
<tr>
<td>Biology:</td>
</tr>
<tr>
<td>Statistics:</td>
</tr>
<tr>
<td>Physics:</td>
</tr>
</tbody>
</table>

*Course offerings are subject to change.*

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After passing the above qualification courses shaded green with a C- or better, you can submit a Petition to Decline. All qualification courses must be completed by the end of the 5th quarter and students must petition to decline by the 6th quarter deadline.

Declared
2. If you can’t find the answers to your questions on a website, each student has at least **two** staff advisers available to them after arriving at UCSC:
   a. **College advisers**
   b. **Major or Department Advisers**

3. If you need help, there are MANY **Academic Support Resources** available on campus and virtually!

4. Starting next week, you can fill out a **Newly Admitted Student Questions Webform**
Remember that any of our four majors can lead to careers in:

- Healthcare
- Biochemical Science
- Education
- Research
- Biotechnology
- Bioinformatics
- Business
- Organismal/Ecology Biology
- Communication
- Legislation/Law

For more information on post-UCSC careers or graduate school, visit the Career Center!
Human Biology Internship Program

- The Human Biology major includes an 80-hour internship related to the medical or public health field and requires:
  - approximately 10 hours per week
  - 10 weekly journal reflections
- There’s also a separate writing course, meeting once a week alongside the internship that is taught by a faculty member
- The internship program is available to declared Human Biology majors in their junior or senior year
- Any other questions, contact the Health Sciences Internship Coordinator, Aaron McPherson: hsintern@ucsc.edu
So You Want to be Pre-Health?

- What is Pre-Health??
  - Anybody that thinks they want to go into a healthcare field: medicine (physician), physician assistant, nursing, dentistry, optometry, occupational therapy, physical therapy, etc.

- Do I have to do the Human Biology Major if I want to be a doctor?
  - No!
  - Many of the MCD Biology majors allow students access to classes they would need to get into a health professional school (prerequisites)

- What should I do if I want to plan out a pre-health “track”?
  - Meet with Pre-Health Advising at the Career Center
    - careers.ucsc.edu/health
  - Email Aaron McPherson with any questions you may have!
Holistic Counseling Focusing On:

- Academic Support
- Time Management Strategies
- Balancing between academics, work and family obligations
- Financial budgeting and planning
- Campus navigation and resources
- Advocacy and referrals
- STEM resources and opportunities (research, internships, pre-health)

Meet the Team:

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Danay Weldegabriel
Engineering
dweldega@ucsc.edu

Maya Woolfe
PBSci
mwoolfe@ucsc.edu

See us on Zoom:
Appointments Available Through Slug Success

https://eop.ucsc.edu/
Check your EOP Status
ACADEMIC EXCELLENCE PROGRAM (ACE): We are an academic support program dedicated to increasing the diversity of UCSC students earning bachelor's degrees in science, technology, engineering, and mathematics. We are a community of scholars who strive for and commit to academic excellence. [https://ace.ucsc.edu/](https://ace.ucsc.edu/)

Learning Support Services (LSS): provides course-specific academic support services for all UCSC undergraduate students. The goal of LSS is to enable all UCSC students to maximize their intellectual potential and demonstrate academic excellence. Therefore, we work closely with the University faculty to design and implement academic support programs that foster peer-guided interactive learning. There is no additional cost to use LSS' services. LSS programs are a part of the undergraduate student's experience at UCSC and each student pays quarterly fee to help support LSS. [https://lss.ucsc.edu/](https://lss.ucsc.edu/)
Frequently Asked Questions!

What if I can’t get into the class I want?

➔ First check prerequisites. Keep in mind, undergraduate advisers cannot waive prerequisites to help you enroll. Instructor permission is the only way to enroll in a class for which you do not have prerequisites!
➔ Then, check for any restrictions regarding first or second pass enrollment appointments. Sometimes classes are restricted to certain majors during first and/or second pass.
➔ If you’ve met all requirements, but can’t get into a class because it’s full, you must attend the first day of class, sign-in and get instructor permission to add the class.

What if I’m struggling with a class?

➔ Talk to the instructor and TA! You are your best advocate, so take the initiative and go to your instructor’s office hours, have an honest chat and get their advice on how to get things moving in the right direction again.
➔ Meet with your college and major advisors! They can help you identify success strategies, and assist you in devising a plan to succeed.
➔ Learning Support Services offers academic support such as tutoring and MSI (Modified Supplemental Instruction) to help you do well in your classes.
FAQ’s Continued:

How can I get into a research lab? Get knowledgeable about the work our faculty are doing and see what piques your interest:
https://mcd.ucsc.edu/faculty/index.html

➔ https://www.eeb.ucsc.edu/research/index.html
➔ https://oceansci.ucsc.edu/research/index.html
➔ https://www.metx.ucsc.edu/research/index.html
➔ https://www.chemistry.ucsc.edu/research/biomedical.html
➔ You can find other undergraduate research opportunities here:
https://ugr.ie.ucsc.edu/database

How do I meet with an adviser?

➔ You can access the MCD Advising schedule by looking at our calendar:
https://mcd.ucsc.edu/academics/undergraduate/advising/index.html
➔ Schedule an appointment through Slug Success once Fall 2020 quarter begins. Appointments become available two weeks in advance, so check back frequently!
➔ During peak enrollment times MCD Advisers make themselves available for drop-in advising to provide enrollment support for over 2000 students. Appointments may not be possible at these times, so plan early!
➔ Ask enrollment questions or other important questions by filling out the Newly Admitted Student Questions Webform. (opens 8am 7/27)
From all of us in the MCD Biology Department, we wish you a happy summer and we’ll “see” you in the fall!