

# BIOLOGY CORE CURRICULUM HONORS, CERTIFICATE

Biology Core Curriculum (Biocore (<http://www.biocore.wisc.edu/>)) is an undergraduate Honors biology certificate program for students who are motivated to learn biology within a small community of students, peer mentors, and faculty instructors. The four-semester curriculum of lecture and laboratory courses provides an integrated foundation of knowledge and skills applicable to any area of bioscience.

Biocore is not a major but fulfills requirements for a variety of biological science majors including those in the College of Agricultural and Life Sciences, College of Letters & Science, College of Engineering, and School of Pharmacy. See the Biocore website and video (<http://www.biocore.wisc.edu/about/>) to learn more.

Biocore includes:

- Small classes and high faculty/instructor contact
- Emphasis on research, problem solving, science reasoning, group learning, and communication
- Inclusive, collaborative community of students and faculty
- Peer mentoring, outreach, and directed study opportunities
- Biocore Honors certificate.

## HOW TO GET IN

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Biocore is an application-based Honors program that starts in the fall. While any UW–Madison student admitted to Biocore can take courses and complete the program, only students in the College of Agricultural and Life Sciences, the College of Engineering, the School of Human Ecology, the College of Letters & Science, the School of Education, the School of Pharmacy and the School of Business will be eligible to have the certificate noted on their transcript.

Application options:

Applications are available through the Biocore website (<https://biocore.wisc.edu/biocore-admissions/>) starting in mid-December. Most students apply during the spring of freshman year and begin fall of sophomore year.

- Early application deadline on first Friday of January for notification prior to beginning of spring semester
- Regular application deadline in mid-March prior to April registration
- Rolling application review after March deadline right up to the start of fall classes

## PREREQUISITES

Please inquire about course equivalents.

Code	Title	Credits
<b>Introductory Chemistry</b>		
Complete one of the following:		5

CHEM 104	General Chemistry II
CHEM 109	Advanced General Chemistry
CHEM 115	Chemical Principles I

**Total Credits** 5

## REQUIREMENTS

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Code	Title	Credits
<b>Complete the following lecture courses (in sequence):</b>		
BIOCORE 381	Evolution, Ecology, and Genetics	3
BIOCORE 383	Cellular Biology	3
BIOCORE 485	Principles of Physiology	3
BIOCORE 587	Biological Interactions	3
<b>Complete two of the following lab courses (in any order):</b>		<b>4</b>
BIOCORE 382	Evolution, Ecology, and Genetics Laboratory	
BIOCORE 384	Cellular Biology Laboratory	
BIOCORE 486	Principles of Physiology Laboratory	
<b>Total Credits</b>		<b>16</b>

## RESIDENCE AND QUALITY OF WORK

- Minimum 3.3000 University GPA
- Grade of B or better in all BIOCORE and courses used for the certificate

## CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

## LEARNING OUTCOMES

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1. Demonstrate a learning mindset and intellectual curiosity for biology.
2. Demonstrate advanced level scientific reasoning and integration of biological concepts and processes – from molecules to the biosphere, across different forms of life, through space and time.
3. Generate novel scientific questions, formulate hypotheses, carry out experiments, and make logical conclusions based on evidence.
4. Demonstrate advanced scientific communication skills, oral and written, and the ability to translate their understanding to the broader community.
5. Actively engage in and practice group learning, collaboration, and teamwork.
6. Reach for and achieve high standards in the quality of learning.
7. Articulate the value of the Biocore Honors experience.

## ADVISING AND CAREERS

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Some majors require students to complete the whole program, but others do not. Check on your major requirements and with an academic advisor in your major. Review sample four-year schedules (<https://biocore.wisc.edu/four-year-schedules/>) for how Biocore fits into many different bioscience majors. Students who plan to study abroad during their junior year can plan to start Biocore as sophomores and complete coursework as seniors.

### SUCCESSWORKS

SuccessWorks (<https://successworks.wisc.edu/>) at the College of Letters & Science helps you turn the academic skills learned in your classes into a fulfilling life, guiding you every step of the way to securing jobs, internships, or admission to graduate school.

Through one-on-one career advising, events, and resources, you can explore career options, build valuable internship and research experience, and connect with supportive alumni and employers who open doors of opportunity.

- What you can do with your major (<https://successworks.wisc.edu/what-you-can-do-with-your-major/>) (Major Skills & Outcomes Sheets)
- Make a career advising appointment (<https://successworks.wisc.edu/make-an-appointment/>)
- Learn about internships and internship funding (<https://successworks.wisc.edu/finding-a-job-or-internship/>)
- Try “Jobs, Internships, & How to Get Them,” (<https://successworks.wisc.edu/canvas/>) an interactive guide in Canvas for enrolled UW–Madison students

“Taking Biocore made other advanced courses in biology/biochemistry/genetics so much easier because I gained such solid background knowledge.”

“Biocore has been my most valuable academic experience yet. It has helped me develop my scientific writing skills, ability to problem solve as a member of a team, and to think like a scientist.”

“The great staff and teaching teams are excellent—they really care and invest a huge amount of time to benefit our learning.”

See Biocore Experience video (<https://youtu.be/YavNVg7eXaA/>), recent Biocore Honors graduate profiles (<https://biocore.wisc.edu/biocore-graduates/>), and alumni profiles (<http://www.biocore.wisc.edu/alumni/>).

In addition to courses, Biocore offers co-curricular and leadership opportunities. Students are also able to engage in Biocore peer advising (<https://biocore.wisc.edu/biocore-peer-advisors/>), Biocore peer mentoring (<https://biocore.wisc.edu/biocore-peer-mentors/>), undergraduate TAs, as well as engage in directed study and research opportunities in the Biocore Prairie (<https://biocore.wisc.edu/biocore-prairie/>), go outside the classroom with Biocore Adventure Club, and in K–12 outreach through the Biocore Outreach Ambassadors (<https://biocore.wisc.edu/biocore-outreach-ambassadors/>).

## WISCONSIN EXPERIENCE

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The Biocore Experience is aligned with the Wisconsin Experience, supporting students’ development of knowledge, intellectual skills, and social responsibilities.

Biocore is an Honors biology program, a *community*, and a *curriculum* that challenges students to discover and reach their academic potential within an inclusive and supportive biology education program. The Biocore Honors community of highly motivated students works with dedicated faculty to extend opportunities for scientific research, communication, integrative learning, and collaboration in the context of a four-semester undergraduate biology curriculum.

### STUDENTS SAY:

“Biocore has helped me think about science in a completely different way.”

“I have never been so challenged, nor so excited about learning, as during my time in Biocore.”

“Biocore taught me how to think critically and how to question. I learned to be part of a team and made some great friendships.”