

# **BIO 100:** The Living World

# **Overview**

Can we find life elsewhere in the Universe? This is one of the big questions at the forefront of scientific endeavor. It compels us to explore our celestial neighborhood, searching for signs of life in the Solar System and Earth-like planets beyond. In The Living World, you will learn about the search for life as you master concepts in general biology, including key aspects of biodiversity, evolution, cellular biology, molecular biology, ecology, and human anatomy and physiology.

# What You'll Learn

- Evolution: The diversity of life changed and diversified over time by processes of mutation, selection, and isolation
- Structure and Function: Basic units of structure establish the function of all living things
- Information Flow, Exchange, and Storage: The macro and microscopic features of organisms result from the expression of genetic information in context
- Pathways of Energy and Matter: Biological systems are built and maintained by chemical transformation pathways that are governed by the laws of thermodynamic
- Biological Systems: Living systems are interconnected and interacting
- Nature of Science: Science proceeds by developing and testing explanations for patterns observed in nature



# How to Succeed

To be successful in this course, we recommend English language fluency and computer literacy. We also encourage you to make sure your laptop or desktop computer meets the technical requirements.

Given the advanced nature of this course, please note that some lessons, namely the Into the Cell unit (an interactive, virtual, fly-through), are graphically intensive and require a good internet connection and adequate graphics hardware to perform well.

# Earn College Credit

This course appears on your transcript identically to how it appears on the transcript of an enrolled ASU student.

This course includes a lab and satisfies 4 credit hours toward the Natural Science -Quantitative (SQ) General Studies requirement at Arizona State University. It is strongly encouraged that you consult with your institution of choice to determine how these credits will be applied.

In order to receive academic credit for this course, you must earn a grade of "C" or better. You have one year to add the course to your transcript.

### Exams and Grading

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752 pts	1000 pts	1055 pts	<mark>484 pts</mark>
Biology	Biodiversity	Journey to	Time Traveler's
Bootcamp	Expedition	the Galapagos	Guide to Earth
850 pts	1483 pts	1422 pts	954 pts
Into the Cell	Searching for	Blue Planet	A Mission
	Signatures		Beyond

# **BIO 100: Continued**

## **Materials**

This course makes use of open educational resources (OERs) provided within the course, no purchase necessary.

## **Course Structure**

The Living World uses a scoring system that allows you to earn points as you complete your lessons. While your professor or instructor may elect to add quiz or test material, The Living World lessons are not broken down into a learning portion and a testing portion. You'll interact and answer questions or perform tasks on nearly every screen you see in your course, and those screens each have a score assigned.

**Instructional Screens (5 points each):** These are screens where you learn something new and need to answer a question or perform a task to show that you've understood. If you get it right the first time, you'll earn 5 points. Each time after the first, you'll get specific feedback about what was right or wrong about your answer and have another chance to answer for reduced points. If you reach the maximum number of tries allowed for these screens, a message will appear and you'll usually be shown the correct answer and then allowed to proceed, but with 0 points.

**Simulation Screens (10 points each):** These are screens where you'll interact with a complex, custom simulation to demonstrate what you've learned or to learn something new. You might build DNA, explore the role of carbon in Earth's ecosystems, or see what happens to a population of finches during a drought. Each of these screens is worth 10 points, and you'll earn all 10 when you succeed no matter how many tries it takes. Unlike instructional screens, most simulation screens require you to succeed to proceed, but there is no maximum number of tries.

**Summative Screens (20 points each):** This is as close as The Living World gets to a traditional test. After you've been learning about a concept for a while and performing various activities, or perhaps at the end of an experiment, you'll be asked to show just how much you've learned. These screens offer less help and assistance because you've had a lot of practice, and are worth 20 points. Like Instructional screens, you'll have a limited number of tries and your score will decrease each time.

**Formative Screens (1 point each):** Sometimes you'll be asked for a hypothesis, or to state what you've learned about a topic before The Living World. These screens are called formative screens, and they're worth 1 point. Usually there's no right or wrong answer or maximum number of tries, and you'll get full credit upon inputting your hypothesis, opinion, or what you've learned before. We often use these to compare how much you've learned and to show you later, so be sure to be honest!

**Metacognitive Screens (0 points each):** We'll often ask you to pause and think about how well you understand certain concepts you've been learning. These screens are titled "Pause and Reflect" and are not worth any points, but they are incredibly valuable. First, they allow your professor to see how the class as a whole is doing on each topic in the lesson. They also summarize key points that can help you study or clarify your notes on a lesson. These screens provide an excellent opportunity to think about what makes sense and what doesn't, to take a break if you need it, and to generate questions to ask for help in class or in the discussion forum.

**Review Screens (0 points each):** Sometimes you'll need to review material to make sure you're ready for new adventures ahead. For these screens, you're reviewing material you've already been scored on, so the second time around isn't worth points, but it's valuable practice that will help you earn more points in your lesson.

## **Course Communication**

All communication will take place via the discussion forums and course announcement page. There will be a discussion forum where you can post general questions, comments, and direct inquiries for the instructor and course team. Please use these forums to ensure a timely response. Your instructor will not be able to respond to email.

## **Additional Information**

If you have questions about Universal Learner Courses and how they work, please visit <u>ea.asu.edu</u> or contact our support team at <u>ulcourses@asu.edu</u>.



# **BIO 100: Continued**

### **Instructor led Version**

### **Time Commitment**

This is an asynchronous, online course. You do not need to be at your computer at specific times or participate in live activities. To be successful in this class, you must view all course pages and complete all graded work by the end of the course. Also, keep in mind that "attendance" in an online course means logging into the platform on a regular basis, checking for course announcements, and visiting and participating in the discussion forums.

### 8 week Version

This 4 credit, 8 week course requires about 180 hours of work. Therefore, expect to spend approximately 20-25 hours per week preparing for and engaging in this course.

### **16 week Version**

This 4 credit, 16 week course requires about 180 hours of work. Therefore, expect to spend approximately 12-14 hours per week preparing for and engaging in this course.

### **Assignment Deadlines**

Your instructional team will provide all content and learning activities on or through your course site. All course interactions will use internet technologies; it is your responsibility to review all content, fulfill all assignments by the end of the course, and ask any questions you have in the designated discussion area. It is your responsibility to determine the end date of the course according to your time zone. Due to the large-scale format of Universal Learner Courses, late assignments will not be accepted and we cannot make exceptions.

## **Self paced Version**

### **Time Commitment**

The work in this course is equivalent to an eight week course but you have one year to complete it. Please plan your goals accordingly. During this year, you are encouraged to work through the course at a pace that suits your needs.

You have one year from the date you enrolled to complete the course, and you have one year from the date you complete the course to purchase your academic credit.

### **Course Resets**

Self paced courses cannot be reset. If you are not happy with your grade and want to take the course again, you have two options: you may take the course the next time it is offered in an instructor led format or wait until a new version of the self paced course opens at the beginning of every academic year on the first day of class in August.

### Transcript

You will be able to add the course to your transcript **six weeks after enrolling**. Although the course is self paced, course attendance dates will be listed on your transcript. After purchasing the credits, the course will appear on your transcript in the session you **completed** the course. If you are on the cusp of two sessions and need to confirm the date of completion or beginning/end of a session, please contact our support team at <u>ulcourses@asu.edu</u>.

