

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.

Course Prerequisites and Requirements

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.

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 thermodynamics
- **Biological Systems:** Living systems are interconnected and interacting
- **Nature of Science:** Science proceeds by developing and testing explanations for patterns observed in nature

Transcript

This course appears on your transcript identically to how it appears on the transcript of an enrolled ASU student who has taken the course on one of ASU's campuses.

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 to their degree requirements prior to transferring your credit.

Exams and Grading

752 pts

Biology Bootcamp

1000 pts

World Biodiversity Expedition

850 pts

Into the Cell

1422 pts

Blue Planet

1055 pts

Journey to the Galapagos

484 pts

Time Traveler's Guide to Life on Earth

1483 pts

Searching for Signatures

954 pts

A Mission Beyond

Creators

Christofer Bang

Senior Lecturer,
School of Life Sciences

Christofer Bang is an ecologist, lecturer and photographer. His research spans from dragonfly and damselfly diversity in Norwegian freshwater systems affected by agriculture, to the effects of urbanization on arthropod communities in the metropolitan area of Phoenix. He teaches biology courses at Arizona State University, emphasizing critical-thinking skills using case studies from recent scientific research. His teaching approach spans from engaging lectures in large lecture halls to flipped-classroom active learning style in addition to online interactive learning. With a keen interest in all plants and animals, Bang is an avid photographer. His photographs have been featured on the cover of several scientific journals.



Justin St. Juliana

Instructional Professional

Justin R. St. Juliana received his bachelor's degree in animal ecology at Iowa State University, his master's degree in evolutionary ecology from Ben Gurion University of the Negev (Israel), and his Ph.D. in biology from Indiana State University. Justin's research lies at the interface of predator-prey interactions, optimal foraging, and stress hormones. His study organisms include rodents, foxes, fleas, owls, snakes, and feral cats. Justin has taught at multiple biological levels from microbiology to environmental science. Justin extensively utilizes technology to improve student learning outcomes. He has developed large-scale online non-majors biology courses, is the co-author of an environmental science textbook, and has developed online science activities that are used by tens of thousands of students every year. He is very interested in the latest teaching innovations and heavily incorporates active and community-based learning into his courses. Justin believes that scientific concepts can be taught as stories that relate to a student's life.

