# BIOLOGY (BIOL-UH)

**BIOL-UH 2010 Human Physiology (4 Credits)**
*Typically offered Fall and Spring*
This course uses fundamental concepts from the Foundations of Science curriculum to examine essential elements of organ physiology, including the nervous system with an emphasis on humans. After an initial introduction to the basic principles of physiology, the course emphasizes normal and pathological functions in humans. It explores how the nervous and the endocrine systems allow communication among cells and organs to enable an organism to maintain homeostasis and to respond to environmental changes. The anatomy of the nervous system is also used to address structure, function, homeostasis and adaptability.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Corequisites:** Foundations of Science 1-6.

- Bulletin Categories: Biology Major: Required
- Bulletin Categories: Biology
- Bulletin Categories: Chemistry: Biophysics Electives
- Bulletin Categories: Engineering Crosslisted Courses
- Bulletin Categories: Engineering: Bioengineering ENGR Electives
- Bulletin Categories: Physics: Biophysics Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Chemistry: Common Required
- Crosslisted with: Chemistry
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering
- Crosslisted with: Physics Major: Required
- Crosslisted with: Physics

**BIOL-UH 2113 Evolution (4 Credits)**
*Typically offered occasionally*
This course provides a concept-driven overview of the most fundamental concept in biology: evolution. The course explores the principles of evolutionary biology through lectures, discussion and basic genetic data analyses. Topics include variation, speciation, fitness, adaptation, mutation, genetic drift, natural selection, and phylogenetic systematics. The course focuses on developing students' understanding of these concepts while reviewing the evidence supporting evolutionary theory.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.

- Bulletin Categories: Biology: Electives

**BIOL-UH 2114 Genetics (4 Credits)**
*Typically offered Spring*
Why do offspring often exhibit physical features of their parents? Why do combinations of certain features in offspring translate into specific characteristics that either enhance or diminish the organism's fitness? The course covers the concepts, principles and research methods used in the field of genetics. Students learn about the major types of genetic variation and how they are generated, distributed and maintained across genomes and between individuals. The course covers concepts such as mutation, recombination, transmission systems, cytoplasmic inheritance, population genetics, and multifactorial inheritance. Emphasis is placed on patterns of Mendelian and non-Mendelian inheritance and the use of genetic methods to analyze protein function, gene regulation, and disease.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.

- Bulletin Categories: Biology: Electives
- Bulletin Categories: Chemistry: Biophysics Electives
- Bulletin Categories: Chemistry: Medical Sciences Optional Electives
- Bulletin Categories: Physics: Biophysics Electives

**BIOL-UH 3090 Research Seminar in Biology (2 Credits)**
*Typically offered Fall and Spring*
The research seminar provides students with an overview of the diverse multidisciplinary research areas that have captured the interest and fascination of NYU Abu Dhabi biologists and others in related fields. Through exposure to faculty research, students identify areas of interest for their own capstone research, and develop and write an in-depth research proposal over the course of the semester. The final capstone proposal is due at the end of the seminar so that students can begin the Capstone Project in Biology 1. All majors in Biology are required to complete the Research Seminar in Biology during the fall semester of their junior year. Students who have chosen Biology as their secondary major do not need to complete the research seminar course; students must instead take two courses in their chosen elective which are not research courses.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6 or BIOL-UA 21 or BIOL-SHU 250.

- Bulletin Categories: Biology Major: Required
- Bulletin Categories: Biology

**BIOL-UH 3101 Behavioral and Integrative Neuroscience (4 Credits)**
*Typically offered Spring*
The behavioral response of an animal to a stimulus is the summed effect of a variety of internally coordinated processes starting at the molecular level and resulting in a change of activity in associated neural circuits. This course covers the molecular, physiological and anatomical bases of behavior, with particular emphasis on mammalian sensory, motor, regulatory, and motivational mechanisms. Students will also consider higher mental processes such as those involved in language and memory.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** BIOL-UH 2010 or PSYCH-UH 1003E.
- Bulletin Categories: Biology BCS
- Bulletin Categories: Biology: Brain Cognitive Science Spec: Required
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology

**BIOL-UH 3114 Molecular Biology (4 Credits)**
*Typically offered occasionally*
What is the nature of biological information? How is it read and decoded? How is it reliably passed from one generation to another? How are errors during DNA replication and protein synthesis corrected? How is cell fate determined? These and other questions will be answered in the course. In particular, the molecular biology course will help students understand concepts and techniques required to answer fundamental questions in molecular biology. Students will also learn how to design experiments, test hypotheses and interpret results. Finally, they will get the opportunity to review research papers and critically analyze experimental data.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Electives

**BIOL-UH 3116 Immunology (4 Credits)**
*Typically offered occasionally*
This course offers a comprehensive view of modern immunology at the evolutionary, cellular and molecular levels and enables the students to understand the defense mechanisms in the vertebrate immune system. The course presents the major groups of pathogens and their transmission. The fundamental principles of cellular and molecular immunology will be discussed, with emphasis upon the interrelationships between innate and adaptive host defense. The nature of immunological specificity and its underlying molecular biology will be presented. This will be followed by a discussion on the emergence and evolution of the vertebrate immune system. The course concludes with presentation and discussion of new and emerging concepts and methodologies in tumor immunology and treatment of infectious diseases.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Chemistry: Biophysics Electives
- Bulletin Categories: Chemistry: Medical Sciences Optional Electives
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Bulletin Categories: Physics: Biophysics Electives

**BIOL-UH 3117 Molecular Neurobiology (4 Credits)**
*Typically offered Fall*
Can we understand how the brain works at the level of individual cells, genes and even molecules? This seminar course provides students with broad exposure to current questions and experimental approaches in molecular and cellular neuroscience. Classes are organized into three modules: the control of neuronal cell form and its developmental determinants; neuronal cell function; and the mechanisms underlying neuronal signaling and synaptic plasticity.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** BIOL-UH 2010.
- Bulletin Categories: Biology BCS
- Bulletin Categories: Biology: Brain Cognitive Science Spec: Required
- Bulletin Categories: Biology: Electives

**BIOL-UH 3118 Conservation Biology (4 Credits)**
*Typically offered occasionally*
The loss of biodiversity is one of the most rapid forms of environmental changes imposed by human on our planet. Conservation biology is the study of the factors that are responsible for the loss, maintenance and restoration of biodiversity. It is a highly inter-disciplinary field, which requires in-depth understanding of ecology and evolutionary biology. In its application, conservation biology must also take into account the sociological, economical and ethical impact of biodiversity protection. This course will first explore the processes responsible for the establishment and maintenance of biodiversity as well as the multiple benefits of biodiversity for the function of ecosystems and for human use. The impact of habitat loss, overexploitation and invasive species on biodiversity will be discussed. This will be followed by an exploration of strategies used by conservation biology to combat these threats. These topics will be further investigated by the in-depth study of some of the most pressing threats, including overfishing, the impact of climate changes and the loss of tropical rainforests.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Environmental Studies: Envr Science
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Environment
- Crosslisted with: Environmental Studies

**BIOL-UH 3120 Biostatistics (4 Credits)**
*Typically offered Fall*
The ability to organize and analyze biological data is an essential research tool. This course provides an introduction to the quantitative methods used to analyze biological data. The course will introduce topics such as describing and displaying data, probability, hypothesis testing, how to design experiments, and others. Hands-on experience will be provided through exercises using biological data and R, a free open-source statistical software.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-4.
- Bulletin Categories: Biology Major: Required
- Bulletin Categories: Biology
- Bulletin Categories: Chemistry: Medical Sciences Optional Electives

**BIOL-UH 3121 RNA Biology (4 Credits)**
*Typically offered occasionally*
RNA biology is one of the most actively investigated areas of life science today. Sharing properties with both DNA and proteins, RNA molecules can replicate themselves and catalyze biochemical reactions within their functional capacity. Some viruses have their whole genomes made of RNA, but we humans have evolved to use DNA for storing genetic information and inheritance, and proteins for catalytic function. Recently scientists have begun to harness the power of RNA in life science and medicine (e.g. COVID-19 mRNA vaccine). Through this course, we will gain basic knowledge about RNA molecules and how they operate in healthy and diseased cells. We start with how they differ from their peer DNA molecules, and go through their processing, maturation, cytoplasmic export in eukaryotes, regulated degradation, translation, and localization. We will update ourselves with the most recently emerged techniques for RNA investigations, and finally we will touch upon RNA as a new generation of medicine resource.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-4.
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Engineering Required Elective Courses
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering

**BIOL-UH 3122 Stem Cell Biology (4 Credits)**
*Typically offered Spring*
This course offers a comprehensive view of basic and frontier stem cell biology at the cellular and molecular levels, and their applications, such as regenerative medicine, tissue engineering and drug discovery. This course will introduce the definition of stem cell and its variety. The cutting-edge methods to investigate the cellular identities, isolate the cells of interests, and characterize their phenotypes and functions will be introduced. This course will introduce how stem cells provide the diversity of cell types, the resulting tissue formation with their proper functionality. This course will also introduce stem cell functions in pathological situations. Finally, the course will conclude the introduction and discussion of the biomedical applications of stem cells for drug screening and regenerative medicine.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Corequisites:** Foundations of Science 1-4.
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Engineering Crosslisted Courses
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering

**BIOL-UH 3123 Introduction to Bioinformatics (4 Credits)**
*Typically offered Spring*
This course is designed as an introductory course in bioinformatics for undergraduate students in Biology or Bioengin.. Students are expected to have a fundamental background in either molecular biology and statistics. Basic programming skills necessary to execute the course materials will be provided during the course. Bioinformatics is a multidisciplinary field that leverages statistics and computational tools to interpret large amounts of biological data generated using modern high-throughput DNA sequencing technologies. The main focus of this course is for students to gain familiarity with bioinformatics tools, methods, and best practices. This course will cover the fundamental concepts of command-line programming in Unix and R, enabling students to utilize high-performance computing resources effectively. Through this class, students will gain practical experience with essential bioinformatics tools, including databases, genome assembly and mapping, phylogenetic tree generation, dimensionality reduction, clustering, and network analysis. They will learn how to organize and document their computational projects, troubleshoot errors, and test their code. Additionally, students will engage with primary literature on some of the most significant bioinformatics projects to date. By the end of the course, students will have a comprehensive understanding of bioinformatics methods and the foundational tools needed to explore these methods in greater depth.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-4, and (BIOL-UH 3120 Biostats or ENGR-UH 2010Q Probability and Statistics for Engineers).

- Bulletin Categories: Biology: Lab Electives
- Bulletin Categories: Engineering Crosslisted Courses
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering

**BIOL-UH 3124 Developmental Biology (4 Credits)**
*Typically offered Fall*
The course will cover fundamental principles of developmental biology in animals. This topic is one of the most important in biology and medicine because it links evolution, genetics, cell biology, biophysics and disease. The aim of the course is to understand how genetic and epigenetic processes regulate the formation of an animal during embryogenesis. The first part will cover cellular differentiation and diversification, intercellular signaling, cell adhesion and movement, the role of mechanical forces in shaping tissues and organs. This part will also briefly touch upon concepts of cellular pluri- and multi-potency. The second part of the course will mainly cover advanced topics with a focus on gastrulation, organogenesis, growth control, organ homeostasis and regeneration Evo-Devo, and inborn errors of development that lead to disease in humans. Every part will be illustrated with examples from model and non-model organisms, review some early key discoveries in the field and examine the latest publications that have advanced the understanding of embryogenesis through technological innovation, including microscopy, transcriptomics, genome engineering, organoids, and machine learning.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundation of Science 1 - 6.

- Bulletin Categories: Biology: Electives
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering

**BIOL-UH 3125 Population Genomics (4 Credits)**
*Typically offered Spring*
This course provides an introductive journey into the field of population genomics, both fundamentally and practically. The participants will learn fundamental concepts and practical approaches to studying population genetic diversity and structure, the demographic history of populations, and the impact of natural and artificial selection on genomes. The first part of the course is centered on theoretical concepts and practical approaches in population genomics. The last part of this course focuses on applying the knowledge acquired during the first part to real genetic datasets. After the course, the participants will have detailed knowledge of the methods and applications required to perform a typical population genomic study and be able to: Identify an experimental platform relevant to a population genomic analysis; Explain the theory behind standard population genomic methods; Interpret and analyze results of population genomic data and formulate population genetics hypotheses based on data; Reflect on the strengths and limitations of population genomic methods.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1 - 6.

- Bulletin Categories: Biology: Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology

**BIOL-UH 3130 Biophysics (4 Credits)**
*Typically offered occasionally*
Biophysics uses the laws of physics and their associated mathematical principles to gain an understanding of living systems, primarily by examining forces and interactions among molecules found in cells. This course begins with a thorough review of cells, with a special emphasis on eukaryotes and their different compartments. This section is followed by an investigation of the structures and functions of biological macromolecules, including proteins, nucleic acids, carbohydrates, and lipids. Students gain a deep understanding of information flow in cells via detailed biophysical analysis of replication and gene expression.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Biophysics Required
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Chemistry: Biophysics Required
- Bulletin Categories: Engineering Required Elective Courses
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Bulletin Categories: Physics: Biophysics Required
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Chemistry: Common Required
- Crosslisted with: Chemistry
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering
- Crosslisted with: Physics Major: Required
- Crosslisted with: Physics

**BIOL-UH 3160 Special Topics in Biology (4 Credits)**
*Typically offered occasionally*
Special Topics in Biology offers high-level courses or seminars on a wide variety of topics in the life sciences. Topics vary from semester to semester.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** Yes
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Electives

**BIOL-UH 3211 Experimental Neurobiology (4 Credits)**
*Typically offered occasionally*
This course explores the role of individual molecules and the morphological and physiological properties of single neurons in the nervous system. Both molecular and cellular neurobiology have revolutionized research on cognitive processes and psychiatric disorders. Cell neurobiology has led to understanding the processes of neural coding at both the single cell and the circuit level. This course combines lectures, class discussions, and lab experiments to explore applications of cellular neurobiology in research. In addition to cellular physiology, this course examines brain activity dynamics and investigate neural interface systems. The course engages students in a guided research project as well as scientific writing and data reporting.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** BIOL-UH 2010.
- Bulletin Categories: Biology: Lab Electives
- Bulletin Categories: Psychology: Brain Cognitive Sci Spec: Required
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Psychology Major: Required
- Crosslisted with: Psychology

**BIOL-UH 3213 Applied Molecular Biology Techniques (4 Credits)**
*Typically offered Fall*
Molecular biology has revolutionized biological research during the past few decades. This course combines seminars, class discussions and presentations, and lab experiments that will allow students to explore applications of molecular biology in modern biological research, as well as learn scientific writing and data reporting. A focus of the course will be p53, a tumor suppressor protein that is mutated in over half of all human cancers, making it the most mutated protein in cancer and a key target in the development of cancer therapeutics. Through guided research exercises, students will learn basic and advanced molecular biology techniques that will be used to understand the role of p53 mutations in cancer development and progression and investigate p53-targeted cancer therapeutic strategies.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Lab Electives
- Bulletin Categories: Chemistry: Medical Sciences Lab Electives

**BIOL-UH 3215 Microbiology (4 Credits)**
*Typically offered Spring*
This course provides a comprehensive exploration of microbiology that integrates fundamental concepts with applied techniques and environmental contexts. The curriculum is designed to introduce students to the vast diversity of microorganisms, including bacteria, archaea, viruses, fungi, and protozoa, their metabolism, and their pivotal roles in natural ecosystems, human health, and engineering and industrial applications. Building on this, students will explore microbial interactions, including symbiosis with other microbes, plants, animals, and humans, and the crucial roles of microbes in nutrient cycling, biodegradation, and bioremediation. The course also introduces students to applied microbiology, through topics like biotechnology, industrial applications and the development of antimicrobial resistance, and environmental microbiology, through topics like biogeochemical cycles. Laboratory sessions will provide hands-on experience in culturing, identifying and classifying microorganisms through a variety of techniques as well as basic bioinformatics for examining microbial diversity and function among other topics.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 3 & 4 Corequisite Foundations of Science 5 & 6.
- Bulletin Categories: Biology: Electives
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering

**BIOL-UH 3218 Synthetic Biology (4 Credits)**
*Typically offered Spring*
Synthetic biology aims to use state-of-the-art molecular tools to redesign biological systems by employing the approaches of engineering. The guiding principle in designing synthetic projects is often derived from a systems-level understanding of cellular networks, with metabolic network analyses playing a key role in offering informed hypotheses on how to modify cellular wirings for a desired outcome. This course combines lectures, class discussions, and lab experiments. The course engages students in a guided research project to learn advanced molecular techniques and systems-level analysis. Students become familiar with engineering concepts such as defining biological components as "parts" and cataloging them in synthetic biology parts registries.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6.
- Bulletin Categories: Biology: Lab Electives
- Bulletin Categories: Chemistry: Biophysics Electives
- Bulletin Categories: Physics: Biophysics Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Chemistry: Common Required
- Crosslisted with: Chemistry
- Crosslisted with: Physics Major: Required
- Crosslisted with: Physics

**BIOL-UH 3220 Experimental Systems Biology & Complex Human Disorders (4 Credits)**
*Typically offered Fall*
A typical cell expresses thousands of gene products and synthesizes nearly as many metabolites. How do these components interact with each other and what are the rules governing such interactions? Systems biology attempts first to define what the cell's parts list is, then through establishing how these elements interact, define the emergent properties of such interactions. This course combines lecture, class discussions, and lab experiments to explore key elements of systems biology while exploring the genetic basis of disorders with complex inheritance pattern. Students will carry out high-throughput transcriptome sequencing of human brain RNA samples to measure the expression of gene products implicated in complex neurological disorders. Clustering, gene-set enrichment, and network reconstruction will be carried out to explore the relationship between gene expression and gene function. Last, students will be introduced to yeast two-hybrid technology and reconstruction of networks based on existing Y2H datasets will be carried out and studied.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** Foundations of Science 1-6 (or Foundations of Science 1-4 and instructor permission).
- Bulletin Categories: Biology: Lab Electives
- Bulletin Categories: Chemistry: Biophysics Electives
- Bulletin Categories: Engineering Crosslisted Courses
- Bulletin Categories: Engineering: Bioengineering SCIENCE Electives
- Bulletin Categories: Physics: Biophysics Electives
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology
- Crosslisted with: Chemistry: Common Required
- Crosslisted with: Chemistry
- Crosslisted with: Engineering Common Courses (ECC)
- Crosslisted with: Engineering
- Crosslisted with: Physics Major: Required
- Crosslisted with: Physics

**BIOL-UH 4001 Capstone Project in Biology 1 (4 Credits)**
*Typically offered Fall and Spring*
The Capstone Project in Biology requires students to engage in long-term, mentored research that culminates in the composition of an original paper. Students are expected to engage in a laboratory-based or field-based research project. However, under circumstances based on career trajectory, students may complete a theoretical treatise to explore a new and interesting idea in the life sciences that requires merging extant theories and data to develop novel and testable predictions about specific biological phenomena. The project is developed during fall of the third year as part of the Research Seminar in Biology. During the capstone research experience, students are fully immersed in the daily life of the laboratory. This approach allows students to experience the teamwork required to succeed in research and to foster a relationship with biology faculty who will act as their mentors. Upon completion of their project, students present and discuss the results of their work in a senior thesis following the formatting standards of a leading biology journal.
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** BIOL-UH 3090.

- Bulletin Categories: Biology: Capstone
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology

**BIOL-UH 4002 Capstone Project in Biology 2 (4 Credits)**
*Typically offered Fall and Spring*
Continuation of BIOL-UH 4001
**Grading:** Ugrd Abu Dhabi Graded
**Repeatable for additional credit:** No
**Prerequisites:** BIOL-UH 4001.

- Bulletin Categories: Biology: Capstone
- Crosslisted with: Biology Major: Required
- Crosslisted with: Biology