

# BIOLOGY ELECTIVES

Fall

Courses in **BOLD** satisfy the **WRITING EMPHASIS** requirement. Courses marked with \* satisfy the \***LAB COMPONENT**. Courses marked with ^ satisfy the ^**FIELD COMPONENT**. Students may only use a course once within their major electives.

### **PHYSIOLOGY**

ACBS 315L - Physiology of Reproduction Laboratory \*

ACBS 315R - Physiology of Reproduction

ACBS 400A - Animal Anatomy and Physiology A

**ECOL 340 - Evolution of Plant Form and Function** 

ENTO 401 - Ecological Physiology

ENTO 432 - Comparative Immunology

IMB 406 - Human Immunology

MIC 350 - Core Concepts in Molecular Microbiology

NROS 307 - Cellular Neurophysiology

NROS 420 - Neuroscience of Survival

PLS 359 - Plant Cell Structure and Function

PSIO 201 - Human Anatomy & Physiology I \*

PSIO 202 - Human Anatomy & Physiology II \*

PSIO 303 - Integrative Cellular Physiology

PSIO 380 - Fundamentals of Human Physiology

PSIO 420 - Exercise and Environmental Physiology

PSIO 431 - Physiology of the Immune System

PSIO 467 - Endocrine Physiology

PSIO 485 - Cardiovascular Physiology

Courses in the PSIO department are reserved for majors only. Please contact the PSIO department to determine if seats are available to non-majors.

PSIO 201 & 202 are only available to students in the BS Biology-Biomedical Sciences subplan. Both courses must be taken to satisfy the Physiology and Lab requirements for this track.

## CELL & MOLECULAR BIOLOGY

ACBS 423 - Mechanisms of Disease

ECOL 326 - Genomics

ECOL 345 - Biodiversity and the Tree of Life

ECOL 465 - Phylogenetic Biology

ENTO 432 - Comparative Immunology

ENVS 477 - Principles of Ecotoxicology ^

IMB 401 - Medical Microbiology and Immunology

MCB 325 - The Biology of Cancer

MCB 410 - Cell Biology

MCB 422 - Problem Solving with Genetic Tools \*

MIC 350 - Core Concepts in Molecular Microbiology

MIC 419 - Immunology

MIC 420 - Pathogenic Bacteriology

MIC 452 - Antibiotics - A Biological Perspective

NROS 307 - Cellular Neurophysiology

NROS 412 - Molecular Mechanisms of Learning and Memory

PLP 427R - General Mycology

**PLP 428R - Microbial Genetics** 

PLS 359 - Plant Cell Structure and Function

PLS 448A - Plant Biochemistry and Metabolic Engineering

PSIO 303 - Integrative Cellular Physiology

PSIO 472 - Quantitative Modeling of Biological Systems

## **GENETICS**

ECOL 326 - Genomics

ECOL 345 - Biodiversity and the Tree of Life

MCB 422 - Problem Solving with Genetic Tools \*

MIC 452 - Antibiotics - A Biological Perspective

**PLP 428R - Microbial Genetics** 

PLS 340 - Introduction to Biotechnology

WFSC 430 - Conservation Genetics

# BIOLOGY OF ORGANISMS

#### **MICROORGANISMAL**

ACBS 423 - Mechanisms of Disease

ACBS 449 - Diseases of Wildlife

**ECOL 407 - Disease Ecology and Evolution** 

ECOL 409 - Evolution of Infectious Disease

ENTO 432 - Comparative Immunology

ENVS 410 - Microbial Biogeochemistry and Global Change

ENVS 425 - Environmental Microbiology

ENVS 426 - Environmental Microbiology Laboratory \*

IMB 401 - Medical Microbiology and Immunology

IMB 402 - Medical Microbiology Basics

IMB 404 - Medical Virology Basics

IMB 406 - Human Immunology

MCB 437 - Life in Extreme Environments

MIC 420 - Pathogenic Bacteriology

MIC 421B - Microbiological Techniques \*

PLP 305 - Introductory Plant Pathology

PLP 329A - Microbial Diversity

PLP 427R - General Mycology

PLP 428R - Microbial Genetics

PLS 333 - General Virology

PLS 448A - Plant Biochemistry and Metabolic Engineering

### **MACROORGANISMAL**

ACBS 315L - Physiology of Reproduction Laboratory \*

ACBS 315R - Physiology of Reproduction

ACBS 400A - Animal Anatomy and Physiology A

**ECOL 340 - Evolution of Plant Form and Function** 

ECOL 482 - Ichthyology ^ \*

ECOL 484 - Ornithology ^ \*

ECOL 485 - Mammalogy ^ \*

ECOL 487L - Animal Behavior Lab \*

**ECOL 487R - Animal Behavior** 

ENTO 401 - Ecological Physiology

ENTO 415R - Insect Biology

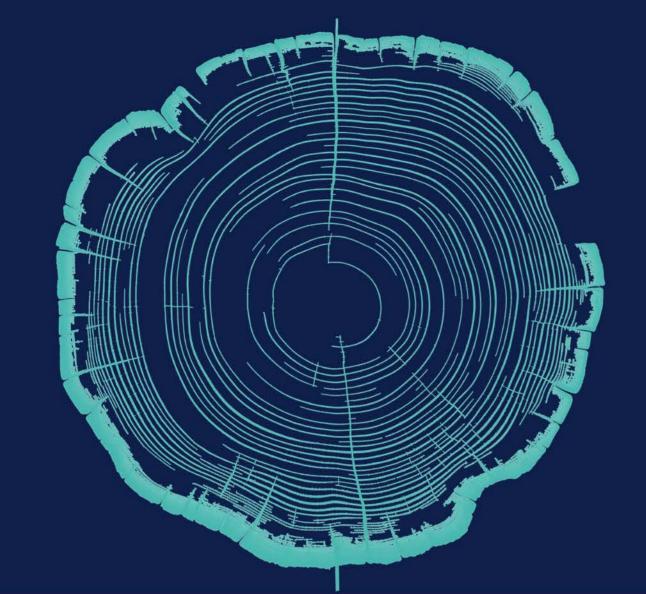
ENVS 474 - Aquatic Plants and the Environment

MATH 481 - Mathematical modeling of fluid flow through and around or-

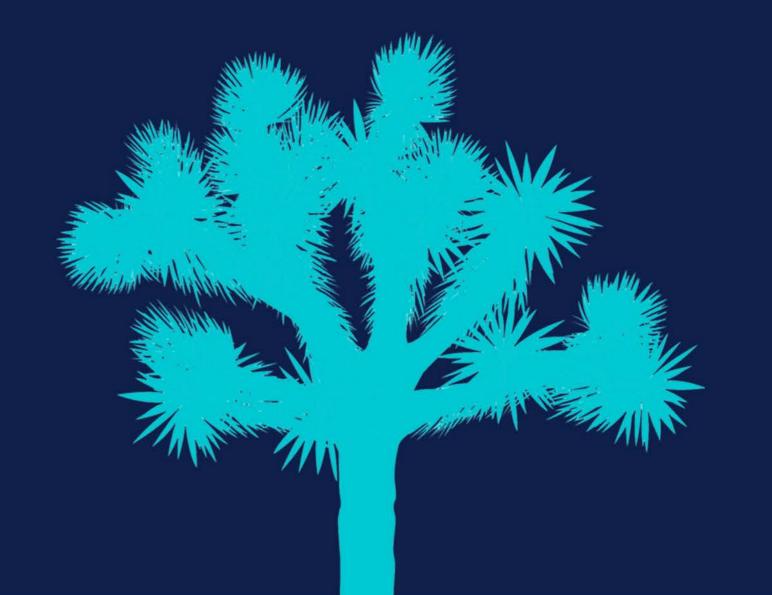
gans and organisms

NROS 420 - Neuroscience of Survival

PSIO 467 - Endocrine Physiology



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## ECOLOGY, EVOLUTION, & BEHAVIOR

BS Biology-Organismal Biology track only

**ANTH 307 - Ecological Anthropology** 

**ANTH 364 - Natural History of Our Closest Relatives** 

ANTH 468 - Human Osteology

ANTH 495D - Special Topics in Biological Anthropology

ECOL 326 - Genomics

**ECOL 340 - Evolution of Plant Form and Function** 

ECOL 345 - Biodiversity and the Tree of Life

ECOL 406R - Conservation Biology

**ECOL 407 - Disease Ecology and Evolution** 

ECOL 409 - Evolution of Infectious Disease

ECOL 414 - Plants of the Desert ^

ECOL 419 - Introduction to Modeling in Biology

ECOL 450 - Marine Discovery ^ \*

ECOL 465 - Phylogenetic Biology

ECOL 487L - Animal Behavior Lab \*

**ECOL 487R - Animal Behavior** 

ENTO 401 - Ecological Physiology

ENTO 415R - Insect Biology

ENTO 432 - Comparative Immunology

ENVS 474 - Aquatic Plants and the Environment

ENVS 477 - Principles of Ecotoxicology ^

GEOS 330 - Introduction to Remote Sensing

GEOS 478 - Global Change

MCB 437 - Life in Extreme Environments

NROS 420 - Neuroscience of Survival

PLP 305 - Introductory Plant Pathology

PLP 329A - Microbial Diversity

PLS 477 - Applied Plant Biodiversity

RNR 316 - Natural Resources Ecology

RNR 417 - Geographic Information Systems for Natural and Social Sciences

RNR 433 - Forest Ecology

WFSC 385 - Zoo and Aquarium Conservation

WFSC 442 – Limnology \*

WFSC 444 - Wildlife Ecology, Conservation, and Management

WFSC 447 - Wildlife Conservation Behavior

WSM 452 - Climate Change and Dryland Ecosystem Ecology

## SCIENCE & SOCIETY

BS Biology-Biomedical Sciences track only

**ANTH 307 - Ecological Anthropology** 

**ANTH 364 - Natural History of Our Closest Relatives** 

CHS 421 - Sociology of Drugs and Addiction

ECOL 409 - Evolution of Infectious Disease

ECOL 450 - Marine Discovery ^ \*

EPID 309 - Introduction to Epidemiology

**HIST 311 - History of Epidemics** 

HPS 306 - Drugs and Society

HPS 387 - Health Disparities & Minority Health

MAS 425 - Latino Health Disparities

MCB 404 - Bioethics

**PCOL 305 - Scientific Writing for Health Science Students** 

PCOL 320 - What's Your Poison? Toxicology of Substances that Surround Us

PHIL 321 - Medical Ethics

PHIL 323 - Environmental Ethics

PHIL 347 - Neuroethics

PHP 305 - Population Health in the Digital Age

PHP 308 - Community Health Education for Disease Outbreaks

TLS 431 - Environmental Learning

