

6 ASUO COURSE GUIDE

MEETS: 8:30 MWF+, 30 SC 1
FORMAT: Lecture/Lab
AVERAGE CLASS SIZE: 40
WEEKLY READING: 40 Pages
PREREQUISITES: BI 291, 292, 293
EVALUATION: 36%-Labs; 64%-4 Quizzes
READINGS: Eckert, ANIMAL PHYSIOLOGY; Lab Manual
DESCRIPTION: Course will familiarize students with the basic framework of facts and concepts in animal physiology. Scope: most examples are drawn from mammals (and other vertebrates) but some comparative material is included. Not specifically oriented toward humans. Emphasis will be placed on nerves, muscle and sensory systems; homeostatic physiology also included. Organizational level covers both cell and organ systems.
COMMENTS: BI 350 (Vertebrate Biology) is not a prerequisite, but it is strongly recommended before taking BI 351.

BI 383 INTRODUCTION TO BACTERIOLOGY LAB (2) Dodds, 481 SC 1

MEETS: 9:30-11:20 UH, 5 SC 2
FORMAT: Lab
AVERAGE CLASS SIZE: 20
WEEKLY READING: 4 Pages
EVALUATION: 15%-Project; 30%-Notebook; 50%-Lab Exercises; 59%-Attendance
READINGS: McConnaughey, LAB METHODS IN MICROBIOLOGY
DESCRIPTION: The purpose is to familiarize student with handling (isolation, maintenance, characterization) of microorganisms and with some of the common types. Keeping of good records, use of microscope, sterile technique, and some standard methods in microbiology will be taught.

BI 392 HUMAN ANATOMY (3) Robertson, 330 Gerlinger

MEETS: 12:30 UH+, 180 PLC
FORMAT: Lecture/Lab
AVERAGE CLASS SIZE: 180
WEEKLY READING: 30 Pages
PREREQUISITES: 1st year Biology or consent of instructor.
EVALUATION: 25%-Lab Midterm; 25%-Lecture Midterm; 25%-Lab Final; 25%-Lecture Final
READINGS: Spenser, BASIC HUMAN ANATOMY; Lab packet
DESCRIPTION: The intent of this course is to provide a basic understanding of the structure of the human body. Emphasis is placed on the neuro-musculo-skeletal system during the fall term (BI 391) and the body systems during the winter term (BI 392)

BI 410G BIOMETRY (5) Frank, 203 SC 1

MEETS: 11:30 MWF+, 334 SC 1
FORMAT: Lecture/Lab
AVERAGE CLASS SIZE: 15
WEEKLY READING: 40 Pages
PREREQUISITES: Students who have some experience with data, and thus an appreciation of the need for inferential testing.
EVALUATION: 60%-Homework; 20%-Midterm; 20%-Final
READINGS: Snedecor and Cochran, STATISTICAL METHODS

DESCRIPTION: A short, intensive course dealing with standard methods of statistical inference as used in biological research analysis: ANOVA, linear regression ANCOVA, multiple regression; a bit on nonparametric tests, analysis of frequency data, principle components as a simple example of the use of multivariate statistics.

BI 410G BEHAVIORAL ECOLOGY (4) Courtney, 308 SC 1

MEETS: 12:30 MWF+, 334 SC 1
FORMAT: Lecture/Discussion
AVERAGE CLASS SIZE: 25
WEEKLY READING: 2 Chapters
EVALUATION: 33%-Midterm; 67%-Final
READINGS: Krebs and Davies, BEHAVIORAL ECOLOGY; Smith, EVOLUTION AND THE THEORY OF GAMES
DESCRIPTION: The evolution of animal behavior will be discussed, covering: feeding strategies, mating systems, territoriality, conflict and cooperation. Emphasis will be placed on recent theoretical and experimental advances. We shall also consider the relevance of such studies to understanding human behavior.
COMMENTS: Some calculus involved. Occasional short field experiments.

BI 426 ADVANCED TOPICS IN EVOLUTIONARY BIOLOGY (4) Todd, 311 Chapman

MEETS: 9:30 MWF+, 334 SC 1
FORMAT: Lecture/Discussion
AVERAGE CLASS SIZE: 10
WEEKLY READING: 50 Pages
PREREQUISITES: BI 320, or equivalent, or instructor's consent.
EVALUATION: 50%-2 Oral Presentations; 50%-Final
READINGS: Futuyama, EVOLUTIONARY BIOLOGY
DESCRIPTION: A Course in evolutionary biology at an advanced level, primarily for biology majors who have had an elementary course in evolution and for graduate students in biology or in related disciplines. Students will give oral presentations of selected topics and lead class discussion.

BI 428G CELL MOTILITY (3) Bajer, 324 SC 1

MEETS: 8:00-9:20 UH, 334 SC 1
FORMAT: Lecture/Discussion/Demonstration
AVERAGE CLASS SIZE: 10
WEEKLY READING: 50 Pages
DESCRIPTION: Cell motility--historical introduction. Video enhanced microscopy--revival of the light microscopy. Limitations of light and electron microscope. Function and structure of motile organelles. Microtubules and F-actin filaments in vitro, in vivo and their role in movements. Mitosis: structure of the mitotic apparatus and mechanism of chromosome movements. Demonstrations (if the class is small) are planned.

BI 434 BRYOLOGY (4) Wagner, Herbarium

MEETS: 13:30-17:20 UH, 111 Hue

FORMAT: Lecture/Lab
AVERAGE CLASS SIZE: 10
WEEKLY READING: 35 Pages
PREREQUISITES: BI 330 or equivalent
EVALUATION: 5%-Homework; 5%-Project; 25%-Quizzes; 20%-Midterm; 20%-Lab Final; 25%-Final
READINGS: Schofield, INTRODUCTION TO BRYOLOGY

DESCRIPTION: This course is devoted to learning about mosses, liverworts, and hornworts, collectively known as bryophytes. The approach will be wholistic, touching on most aspects of bryophyte biology. Special emphasis will be placed on knowing the plants. Laboratory periods will be spent learning to identify specimens collected on field trips and studying demonstration material. Homework requires reading from current literature. Project may be making a reference collection.
COMMENTS: Despite the obvious prominence of mosses in landscapes such as Oregon's, the study of mosses is often neglected by biologists, especially ecologists. This course is designed to fill that gap.

BI 507 CELL NEUROBIOLOGY SEMINAR (1) Tublitz, 238 Huestis

MEETS: 12:30 M, 317 Huestis
FORMAT: Seminar
AVERAGE CLASS SIZE: 25
WEEKLY READING: 26 Pages
PREREQUISITES: Graduate students only
EVALUATION: 50%-Attendance; 50%-Project
READINGS: Selected readings
DESCRIPTION: Seminar course in all areas of neurobiology primarily concerned with critical evaluation of primary research papers.

BI 507 NEUROSCIENCE SEMINAR (1) Fernald, 305 Huestis

MEETS: 15:30 F, 314 SC 1
FORMAT: Seminar
AVERAGE CLASS SIZE: 20
EVALUATION: 100%-Attendance
READINGS: None
DESCRIPTION: Lectures on topics of current research interest in neuroscience by faculty, postdoctoral fellows and invited scientists from other institutions.
COMMENTS: Pass/No Pass only.

BI 508 EUK GENES (2) Sprague, 255 SC 2

MEETS: 12:30 MW, 314 SC 1
FORMAT: Lecture
AVERAGE CLASS SIZE: 25
WEEKLY READING: 2-3 papers from current literature
PREREQUISITES: Course is intended for graduate student in molecular biology.
EVALUATION: 100%-Paper
READINGS:
DESCRIPTION: Lectures will focus on particular aspects of gene action that are the subject of active current research. The course will be taught at the graduate level. Mastery of the basic concepts of molecular biology is expected.

BI ORIGINS OF LIFE (1) Dodds, 481 SC 1