ZOO: Zoology Courses

Courses

ZOO 3558   Coral Reefs
3 sh (may not be repeated for credit)
Coral Reefs is a non-biology major course designed to provide a
general overview of tropical and sub-tropical coral reefs to students
with an interest in these fascinating ecosystems, but who lack a
strong theoretical background in the biological sciences. Covers basic
corresponding lab. Offered Concurrently with ZOO 4304; Graduate
structure dealing with the body, formation, biology and ecology
students are expected to have the ability to hike and do field work.
of Atlantic and Pacific coral reefs. Students will be presented with
and structural adaptations to various modes of living, stressing local
understanding interactive physiological components of adaptive life-
Graduate students will be assigned additional work.
history strategies such as movement, feeding, reproduction, oxygen
take, water balance, and excretion. Offered concurrently with
an ecological and evolutionary context. Emphasis is placed on
ZOO 5486; graduate students will be assigned additional work.
interactions and module-assessments throughout the
course that will reinforce major biological concepts and promote
critical thinking.
ZOO 3905 Directed Study
1-12 sh (may be repeated indefinitely for credit)
ZOO 4254C Marine Invertebrate Zoology
4 sh (may not be repeated for credit)
Survey of the invertebrates, with emphasis on systematics,
morphology, physiology and ecology. Labs include detailed study of
types and exposure to diversity, using live and preserved specimens,
and exposure to techniques used in zoological research. Emphasis is
on local marine species. Material and supply fee will be assessed for
corresponding lab.
ZOO 4304C Marine Vertebrate Zoology
4 sh (may not be repeated for credit)
Structure and function of chordates, especially those in water such as
fish, whales and seals. Study of behavioral, ecological, physiological
and structural adaptations to various modes of living, stressing local
marine forms in lab. Material and supply fee will be assessed for
corresponding lab.
ZOO 4454 Elasmobranch Biology
3 sh (may not be repeated for credit)
Prerequisite: BSC 2011/L
Survey of current advances in the rapidly growing field of
elasmobranch biology. Lectures promote an understanding of the
interactive physiological, behavioral, and ecological components
of adaptive life-history strategies seen in sharks, rays, skates and
chimeras. Offered concurrently with ZOO 5452; graduate students will
be assigned additional work.
ZOO 4457 Fish Physiology
3 sh (may not be repeated for credit)
Prerequisite: BSC 2011/L
Classic and contemporary topics in fish physiology discussed within
an ecological and evolutionary context. Emphasis is placed on
understanding interactive physiological components of adaptive life-
history strategies such as movement, feeding, reproduction, oxygen
uptake, water balance, and excretion. Offered concurrently with
ZOO 5458; graduate students will be assigned additional work.
ZOO 4472 Avian Science
3 sh (may not be repeated for credit)
Prerequisite: (BSC 2011/L AND STA 2023) OR MAC 1000
Avian Science is a course that describes and provides experience
in the study of birds in order to answer questions about their basic
ecology, with special emphasis on techniques for data collection and
data management typically associated with research and monitoring
of bird populations. Topics include species identification (visual and by
song), movements and migration, habitat selection, foraging behavior,
reproduction and nesting ecology, and demography (estimating
survival, population size, nest success). Avian Science emphasizes
S.T.E.M education, covering aspects of science, engineering,
technology, and math important to many areas of ecology. Many of
the techniques and concepts taught in this course, especially the
sections on movements and spatial ecology, habitat selection, and
demography, apply to fauna other than birds. Bird identification and
survey experiences focus on species found on the UWF campus
and on wintering waterfowl in local estuaries. The course consists of
approximately 1/3 lectures and discussion, 1/3 laboratory exercise, and
1/3 field experiences. The class meets once per week for 2.75 hours.
In addition, participation in one supervised day long (approximately12-
hrs) bird survey is required outside of normal class time, and may
need to take place on a weekend (depending on survey schedule
and weather). A one weekend field trip is required in this course, and
students are expected to have the ability to hike and do field work.
Graduate students will be assigned additional work.
ZOO 4485 Marine Mammalogy
3 sh (may not be repeated for credit)
Prerequisite: BSC 2011/L
Application of current mammalogy principles to the study of marine
mammal biology and phylogeny. Emphasizes ecology, physiology and
behavior of the sixteen marine mammal families. Offered concurrently
with ZOO 5486; graduate students will be assigned additional work.
ZOO 4513 Animal Behavior
3 sh (may not be repeated for credit)
Prerequisite: BSC 2011/L
Contemporary view of animal behavior including discussion of sensory
and neurobiology, biological rhythms, genetic and experiential
influences on behavior, communication, orientation, migration,
predator-prey relationships and social behavior. Offered concurrently
with ZOO 5514; graduate students will be assigned additional work.
ZOO 4905 Directed Study
2.75 hrs (may be repeated indefinitely for credit)
ZOO 5305C Marine Vertebrate Zoology
4 sh (may not be repeated for credit)
Structure and function of chordates, especially those in water such as
fish, whales and seals. Study of behavioral, ecological, physiological
and structural adaptations to various modes of living, stressing local
marine forms in lab. Material and supply fee will be assessed for
corresponding lab. Offered Concurrently with ZOO 4304; Graduate
students will be assigned additional work.
ZOO 5452 Elasmobranch Biology
3 sh (may not be repeated for credit)
Survey of current advances in the rapidly growing field of elasmobranch biology. Lectures promote an understanding of the interactive physiological, behavioral, and ecological components of adaptive life-history strategies seen in sharks, rays, skates and chimeras. Offered concurrently with ZOO 4454; graduate students will be assigned additional work.

ZOO 5458 Fish Physiology
3 sh (may not be repeated for credit)
Classic and contemporary topics in fish physiology discussed within an ecological and evolutionary context. Emphasis is placed on understanding interactive physiological components of adaptive life-history strategies such as movement, feeding, reproduction, oxygen uptake, water balance, and excretion. Offered concurrently with ZOO 4457; graduate students will be assigned additional work.

ZOO 5475 Avian Science
3 sh (may not be repeated for credit)
Avian Science is a course that describes and provides experience in the study of birds in order to answer questions about their basic ecology, with special emphasis on techniques for data collection and data management typically associated with research and monitoring of bird populations. Topics include species identification (visual and by song), movements and migration, habitat selection, foraging behavior, reproduction and nesting ecology, and demography (estimating survival, population size, nest success). Avian Science emphasizes S.T.E.M education, covering aspects of science, engineering, technology, and math important to many areas of ecology. Many of the techniques and concepts taught in this course, especially the sections on movements and spatial ecology, habitat selection, and demography, apply to fauna other than birds. Bird identification and survey experiences focus on species found on the UWF campus and on wintering waterfowl in local estuaries. The course consists of approximately 1/3 lectures and discussion, 1/3 laboratory exercise, and 1/3 field experiences. The class meets once per week for 2.75 hours. In addition, participation in one supervised day long (approximately 12 hrs) bird survey is required outside of normal class time, and may need to take place on a weekend (depending on survey schedule and weather). A one weekend field trip is required in this course, and students are expected to have the ability to hike and do field work. Graduate students will be assigned additional work.

ZOO 5486 Marine Mammalogy
3 sh (may not be repeated for credit)
Application of current mammalogy principles to the study of marine mammal biology and phylogeny. Emphasizes ecology, physiology, and behavior of the sixteen marine mammal families. Offered concurrently with ZOO 4485; graduate students will be assigned additional work.

ZOO 5514 Animal Behavior
3 sh (may not be repeated for credit)
Animal behavior including discussion of sensory biology and neurobiology, biological rhythms, genetic and experiential influences on behavior, communication, orientation, migration, predator-prey relationships and social behavior. Offered concurrently with ZOO 4513; graduate students will be assigned additional work.

ZOO 5905 Directed Study
1-12 sh (may be repeated indefinitely for credit)