Zoo Science and Management
Course Syllabus  Spring 2014

Course Number:  ENR 4360
Title:  Zoo Science and Management.
Credit hrs:  2
Prerequisites:  ENR 3300 (319), OR ENR 3600 (340), OR ENR 3611 (311), OR
permission of instructor

Time and Place:
Lecture  Tues @  6:30-8:30 pm  Kottman Hall 370
Laboratory  Sat*  @  9:00am – 12:00pm  Columbus Zoo and Aquarium
*alternating Saturdays

Supervising Instructor:  Dr. Stanley D. Gehrt (gehrt.1@osu.edu; 2-1930)
School of Environment and Natural Resources

Zoo Instructor:  Danielle Ross, Director of Education
danielle.ross@columbuszoo.org
(614)724-3551
Columbus Zoo and Aquarium
P.O. Box 400
Powell, OH 43065
www.columbuszoo.org

Associate Instructors:
Dan Beetem, Director, Animal Management at the Wilds
Mike Brittsan, Curator, Shores Region
Dr. Joe Greathouse, Director, Conservation Science at the Wilds
Lewis Greene, Senior Vice President, Conservation and Animal Care
Dana Hatcher, Animal Nutrition Manager
Karen Huebel, Director, Theming and Interpretive Design
Dr. Randy Junge, Vice President, Animal Health
Harry Peachey, Curator, Mainland Asia
Patty Peters, Vice President, Community Relations
Carrie Pratt, Curator, North America Region
Shelly Roach, Registrar
Rebecca Rose, Field Conservation Manager
Tom Stalf, President and CEO
Kelly Vineyard, Curator, African Forest/Australia Region
Doug Warmolts, Director, Animal Care
COURSE DESCRIPTION:
2 credits
This course is a collaboration between the School of Environment and Natural Resources and the Columbus Zoo and Aquarium, and provides students a unique opportunity to combine formal coursework with first-hand experience with zoo/aquarium professionals associated with a world-renowned zoo/aquarium. This course introduces students to the different elements involved with zoo science and management. Leading zoos are involved in setting and meeting the highest standards for animal care and exhibition, zoo-based education and research programs, national and international training programs, and field-based research and conservation activities. Zoo professionals must participate in international partnerships focused on wildlife management, science and conservation around the world. Great zoos also educate and inspire visitors, and allow visitors to see animals and their behaviors they might never see in the wild. Thus, zoos have the potential to shape public opinion regarding the value of wildlife and their habitats. Students will become familiar with the concepts and challenges associated with these biological, educational, ethical, and administrative aspects of zoo science through lecture and practical experience. This course will be of interest for students interested in careers as a zoo or wildlife park curator, conservationist focused on rare species, environmental educator, or a leader in international wildlife management programs.

COURSE OBJECTIVES:
Develop familiarity with conceptual and practical elements of operating and managing a zoo, including: 1) Identify and use the biological concepts, principles, and theories that constitute the foundation of managing captive wildlife, 2) employ techniques central to wildlife husbandry, including animal growth, development, behavior and welfare, 3) develop a familiarity with areas of specialization in zoo science and additional qualifications that are required in seeking careers in those fields, 4) employ zoo science terminology accurately, 5) describe ethical challenges in the management and research of captive animals.

TEXT:


Building a Future for Wildlife: the World Zoo and Aquarium Conservation Strategy, published by the World Association of Zoos and Aquariums (WAZA, 2005). This document outlines the role of zoos in wildlife conservation with a focus on both responsibilities and opportunities unique to zoological institutions.

Additional optional text: “Why Zoos & Aquariums Matter: Assessing the Impact of a Visit to a Zoo or Aquarium.” (co-authored by SENR faculty, Dr. Joe Heimlich)
COURSE FORMAT:
Classes will be held at OSU and at the Columbus Zoo, and zoo professionals will serve as instructors for classroom lectures as well as ‘fieldwork’ behind the scenes at the zoo. The class is held on Tuesday evenings on campus and at the Zoo on alternate Saturdays during spring semester. Students will be expected to arrange transportation to the Zoo for Saturday classes.

GRADING POLICY: The class is letter-graded, based on the following breakdown:
1. Attendance and Participation – 20%
2. Student Journals – 20%
3. Quizzes (given at the beginning of each class) – 25%
4. Zoo Master Plan – 35%

Grading  A 90-100; B 80-89; C 70-79; D 60-69; E < 60. Plus/minus grading applied to the following overlap ranges (88-92; 78-82; 68-72; 58-62).

Students will be expected to maintain a journal throughout the course. These journals should contain observations and notes from lectures and facility tours, impressions of the class and the information that is presented. Student journals will provide valuable feedback to the instructors and to zoo staff about the quality of the course and will be returned to the students for future reference after a grade has been assigned. Quizzes will be short, 4-5 questions, delivered at the beginning of each class. A zoo master plan will constitute a major portion of the grade. Students will work in groups on this project throughout the semester. The plan will incorporate different concepts and subject areas that are covered in class. The final examination will consist of an oral presentation to the zoo instructors.

DISABLED STUDENTS:
Students with disabilities who need accommodations should contact Dr. Gehrt at the telephone number or email address above to make arrangements. Special needs must be discussed and arrangements made well in advance (preferably prior to the start of class) of when they are required. Special accommodations may be arranged through the OSU Office of Disability Service, 150 Pomerene Hall, 1760 Neil Ave., Phone – 292-3307, website - http://www.ods.ohio-state.edu/

ACADEMIC MISCONDUCT STATEMENT
Academic misconduct as defined by the university (Faculty Rule 3335-31-02) will not be tolerated. Submitting plagiarized work to meet academic requirements including the representation of another’s work or ideas as one’s own; the unacknowledged word for word use of another person’s ideas; and/or the falsification, fabrication, or dishonesty in reporting research results shall be grounds for charges of academic misconduct and will be assigned a grade of E.
TOPICAL OUTLINE AND SCHEDULE

**Tuesday, January 7:** (Gehrt & Ross)
Course Expectations & Introduction
Define Course Project
The Purpose of Zoos/Why Zoos and Aquariums Matter
**Journal Question:** “What is your opinion about zoos? And what is their role in the community?”

**Tuesday, January 14:** (Ross & Huebel)
Overview of Zoo Organization and Chain of Command
Animal Exhibits – Design and Signage
Master Planning
**Journal Question:** “How should zoos balance the needs of the guests, staff and the animals?”

**Saturday, January 18:** (Huebel & Warmolts)
Animal Exhibits – Design and Signage (POLAR FRONTIER)
Collection Plan (AFRICAN FOREST or AUSTRALIA/ISLANDS)

**Tuesday, January 21:** (Warmolts)
Animal Acquisition/Disposition
Genetic Management—Theory and Application
Studbooks
Species Survival Plans
**Journal Question:** “Are zoos important to species protection? Why or why not?”

**Tuesday, January 28:** (Roach & Greene)
Animal Record Keeping
Animal Regulations & AZA accreditation
**Journal Question:** “Do you think zoos need more or less regulation? Why or why not?”

**Saturday, February 1:** (Junge)
Animal Handling and Emergencies (ANIMAL HOSPITAL)

**Tuesday, February 4:** (Vineyard & Pratt)
Introduction to Animal Training & Enrichment
Introduction to Animal Transport
Introduction to Mixed Species Exhibits
**Journal Question:** “Is training a type of enrichment? Why or why not?”

**Saturday, February 8:** (Vineyard & Pratt)
Animal Training & Enrichment (TBD)
Animal Transport (TBD)
Mixed Species Exhibits (MANATEES)

**Tuesday, February 11:** (Gehrt)
Disease Management and Risk
Controlling Native Wildlife Populations in Zoos
**Journal Question:** “How can you tell if a zoo takes ‘good’ care of their animals?”

**Saturday, February 15:** (Hatcher & Brittsan)
Animal Nutrition (ANIMAL NUTRITION)
Aquatic Exhibits (DISCOVERY REEF)

Tuesday, February 18: (Greene & Peters)
Zoo Ethics
Animal Rights vs. Animal Welfare
Journal Question: “Are zoos relevant in society?”

Tuesday, February 25: (Peachey)
Social Organization of Vertebrates
Control of Reproduction
Journal Question: “Has your opinion about zoos changed? Why or why not?”

Saturday, March 1: (Peachey & Huebel)
Managing Social Groups and Individuals (ASIA QUEST/PACHYDERMS)
Group work time

Tuesday, March 4: (Rose)
Field Conservation
Journal Question: “What is field conservation? How can/should zoos contribute?”

Tuesday, March 11: (Ross)
Education in Zoos
Journal Question: “Do you think the Zoo meets its mission?”

Tuesday, March 18: (Staff)
The Future of Zoos
Journal Question: “What do you see as the role of zoos in the next 50 years?”

Tuesday, March 25:
NO CLASS

Saturday, March 29: No Class

Tuesday, April 1:
Presentation Prep Time

Saturday, April 5: (Greathouse & Beetem) Arrive Wilds @ 10AM/Depart Wilds @ 2PM
Research in Zoos and at the Wilds
Managing mixed species at the Wilds

Tuesday, April 8:
Presentation Prep Time

Saturday, April 12: (All Instructors)
GROUP PRESENTATIONS AT THE ZOO

Tuesday, April 15:
Final Exam
Group Project

Congratulations! You have been selected to propose plans on a new exhibit for the Columbus Zoo and Aquarium. We are looking for creative and thoughtful ideas to help determine what our next region should look like. Your group should select one of the following options:

Option One –
Design a unique exhibit that will be built in Downtown Columbus. It should engage and inspire visitors. The focus of this exhibit should complement what the Zoo currently has, but not replicate any current exhibits.

Option Two –
Design an exhibit that focuses on native Ohio Wildlife. Visitors should have a greater appreciation of our local wildlife and the issues that face our habitats. This can be located at either the Zoo or downtown.

For either option, your group should include the following:

• A management plan that incorporates each topic addressed in the course syllabus.
• A press release that explains why your exhibit appeals to Central Ohio residents and how it fits within the Zoo’s mission.
• A description of local, regional or national partners who will work with the Zoo as part of this exhibit. What will that partnership look like?

Your group will present your recommendations to a panel of Zoo experts on Saturday, April 12, 2014. The presentation should last 15 minutes with five minutes for questions following your presentation.