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OFFICE OF THE SENATE COUNCIL

Course Information

Date Submitted: 4/19/2016

Current Prefix and Number: FOR - Forestry , FOR 230 CONSERVATION BIOLOGY

Other Course:

Proposed Prefix and Number: FOR 435

What type of change is being proposed?

Major Change

Should this course be a UK Core Course? Yes

Global Dynamics

1. General Information

a. Submitted by the College of: AGRICULTURE, FOOD AND ENVIRONMENT

b. Department/Division: Forestry

c. Is there a change in 'ownership' of the course? No

If YES, what college/department will offer the course instead: Select...

e. Contact Person

Name: Laura R. Lhotka

Email: laura.lhotka@uky.edu

Phone: 859-257-8718

Responsible Faculty ID (if different from Contact)

Name: John J. Cox

Email: jjcox@uky.edu

Phone: 859-257-9507

f. Requested Effective Date

Semester Following Approval: Yes OR Effective Semester:

2. Designation and Description of Proposed Course

a. Current Distance Learning (DL) Status: N/A

b. Full Title: CONSERVATION BIOLOGY

Proposed Title: Conservation Biology

c. Current Transcript Title: CONSERVATION BIOLOGY

Proposed Transcript Title: Conservation Biology

d. **Current Cross-listing:** none

Proposed – ADD Cross-listing :

Proposed – REMOVE Cross-listing:

e. **Current Meeting Patterns**

LECTURE: 3

Proposed Meeting Patterns

LECTURE: 3

f. **Current Grading System:** ABC Letter Grade Scale

Proposed Grading System: *Letter (A, B, C, etc.)*

g. **Current number of credit hours:** 3

Proposed number of credit hours: 3

h. **Currently, is this course repeatable for additional credit?** No

Proposed to be repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester? No

2i. **Current Course Description for Bulletin:** The basic history and principles of conservation biology, including diversity, extinction, evolution, and fragmentation. Students will learn the applications of conservation biology to such topics as forest management and wetland management and study the ethical perspectives related to conservation biology, including environmental ethics, deep ecology, and the land ethic.

Proposed Course Description for Bulletin: Review the ethical foundations of conservation biology, discuss the scientific evidence that illustrates recent rapid loss of biological diversity at multiple spatial and temporal scales, identify and elaborate on the causative factors of biodiversity loss, discuss various strategies for conserving biodiversity, and discuss ways that various human cultures and associated resource use influence non-human life and the human societies that depend on them. Conservation biology is multidisciplinary in scope and discussion topics include wildlife management, restoration ecology, economics, ethics, geology, evolution, philosophy, phylogeny, taxonomy, genetics, behavioral ecology, population ecology, disease, sociology, sustainable living, and human dimensions. Conservation topics will be global in scope, with well-studied case examples used to support class activities.

2j. **Current Prerequisites, if any:** none

Proposed Prerequisites, if any: Introductory biology course, or consent of instructor

2k. **Current Supplementary Teaching Component:**

Proposed Supplementary Teaching Component: No Change

3. **Currently, is this course taught off campus?** No

Proposed to be taught off campus? No

If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed? Yes

If YES, explain and offer brief rational: The course content and student learning outcomes have been modified to be taught at a 400-level course and to include a global focus. We propose this course to be included as a UK Core Global Dynamics course.

5a. Are there other depts. and/or pgms that could be affected by the proposed change? Yes

If YES, identify the depts. and/or pgms: Natural Resources and Environmental Science; Landscape Architecture

5b. Will modifying this course result in a new requirement of ANY program? No

If YES, list the program(s) here:

6. Check box if changed to 400G or 500: No

Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

1.How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?

2.How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.

3.How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.

4.Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

5.How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?

6.How do course requirements ensure that students make appropriate use of learning resources?

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10.Does the syllabus contain all the required components? NO

11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

SIGNATURE|TTBA225|Terrell T Baker|FOR 230 CHANGE Dept Review|20150302

SIGNATURE|LGRABAU|Larry J Grabau|FOR 230 CHANGE College Review|20150716

SIGNATURE|JMETT2|Joanie Ett-Mims|FOR 230 CHANGE UKCEC Review|20160418

SIGNATURE|TMUTE2|Tad Mutersbaugh|FOR 435 CHANGE UKCEC Expert Review|20160418

SIGNATURE|JMETT2|Joanie Ett-Mims|FOR 230 CHANGE Undergrad Council Review|20160420

Course Change Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Generate R

Attachments:

Browse... Upload File

	ID	Attachment
Delete	6723	FOR435GlobalDynamics_UKCore041616.pdf
Delete	6735	FOR435Syllabus041916b.pdf

First 1 Last

NOTE: Start form entry by choosing the Current Prefix and Number
(*denotes required fields)

	Current Prefix and Number:	FOR - Forestry / FOR 230 CONSERVATION BIOLOGY	*Proposed Prefix & Number:* (example: PHY 401G) ☐ Check if **same** as current	FOR 435

*	What type of change is being proposed?	☑ Major Change ☐ Major – Add Distance Learning ☐ Minor - change in number within the same hundred series, ex 799 is the same "hundred series" ☐ Minor - editorial change in course title or description which do change in content or emphasis ☐ Minor - a change in prerequisite(s) which does not imply a ch course content or emphasis, or which is made necessary by the significant alteration of the prerequisite(s) ☐ Minor - a cross listing of a course as described above

Should this course be a UK Core Course? ◉ Yes ○ No

If YES, check the areas that apply:

☐ Inquiry - Arts & Creativity	☐ Composition & Communications - II
☐ Inquiry - Humanities	☐ Quantitative Foundations
☐ Inquiry - Nat/Math/Phys Sci	☐ Statistical Inferential Reasoning
☐ Inquiry - Social Sciences	☐ U.S. Citizenship, Community, Diversity
☐ Composition & Communications - I	☑ Global Dynamics

1. General Information

a. Submitted by the College of: AGRICULTURE, FOOD AND ENVIRONMENT Submission Date: 4/19/2016

b. Department/Division: Forestry

c.* Is there a change in "ownership" of the course?

○ Yes ◉ No If YES, what college/department will offer the course instead? Select...

e.* * Contact Person Name: Laura R. Lhotka Email: laura.lhotka@uky.edu Phone: 859-257-8718

* Responsible Faculty ID (if different from Contact) John J. Cox Email: jjcox@uky.edu Phone: 859-257-9507

f.* Requested Effective Date: ☑ Semester Following Approval OR Specific Term: [2]

2. Designation and Description of Proposed Course.

a.	Current Distance Learning(DL) Status:	◉ N/A ○ Already approved for DL* ○ Please Add ○ Please Drop

*If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box) that the proposed chang affect DL delivery.

b.	**Full Title:**	CONSERVATION BIOLOGY	*Proposed Title:* *	Conservation Biology
c.	**Current Transcript Title (if full title is more than 40 characters):**	CONSERVATION BIOLOGY		
c.	*Proposed Transcript Title (if full title is more than 40 characters):*	Conservation Biology		
d.	**Current Cross-listing:**		OR	

	☑ N/A		Currently[3] Cross-listed with (Prefix & Number):	none	
	Proposed– ADD[3] Cross-listing (Prefix & Number):				
	Proposed – REMOVE [3,4] Cross-listing (Prefix & Number):				

e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours [5] for each meeting patterr

Current:	Lecture 3	Laboratory[5]	Recitation	Discussion	Indep. Stu
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other	Please explain:	
*Proposed: **	Lecture 3	Laboratory[5]	Recitation	Discussion	Indep. Stu
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other	Please explain:	

f.	**Current Grading System:**	ABC Letter Grade Scale		
	*Proposed Grading System:**	◉ *Letter (A, B, C, etc.)* ○ *Pass/Fail* ○ *Medicine Numeric Grade (Non-medical students will receive a letter grade)* ○ *Graduate School Grade Scale*		
g.	**Current number of credit hours:**	3	*Proposed number of credit hours:**	3
h.*	**Currently, is this course repeatable for additional credit?**			○ Yes ◉
*	*Proposed to be repeatable for additional credit?*			○ Yes ◉
	If YES:	*Maximum number of credit hours:*		
	If YES:	*Will this course allow multiple registrations during the same semester?*		○ Yes ○

i. Current Course Description for Bulletin:

The basic history and principles of conservation biology, including diversity, extinction, evolution, and fragmentation. Students will learn the applications of conservation biology to such topics as forest management and wetland management and study the ethical perspectives related to conservation biology, including environmental ethic deep ecology, and the land ethic.

* *Proposed Course Description for Bulletin:*

Review the ethical foundations of conservation biology, discuss the scientific evidence that illustrates recent rapi loss of biological diversity at multiple spatial and temporal scales, identify and elaborate on the causative factor of biodiversity loss, discuss various strategies for conserving biodiversity, and discuss ways that various human cultures and associated resource use influence non-human life and the human societies that depend on them. Conservation biology is multidisciplinary in scope and discussion topics include wildlife management, restoration ecology, economics, ethics, geology, evolution, philosophy, phylogeny, taxonomy, genetics, behavioral ecology, population ecology, disease, sociology, sustainable living, and human dimensions. Conservation topics will be global in scope, with well-studied case examples used to support class activities.

j. Current Prerequisites, if any:

none

* *Proposed Prerequisites, if any:*

Introductory biology course, or consent of instructor

k. Current Supplementary Teaching Component, if any: ○ Community-Based Experience

		○ Service Learning ○ Both
	Proposed Supplementary Teaching Component:	○ Community-Based Experience ○ Service Learning ○ Both ◉ No Change
3.	**Currently, is this course taught off campus?**	○ Yes ◉
*	*Proposed to be taught off campus?*	○ Yes ◉
	If YES, enter the off campus address:	
4.*	**Are significant changes in content/student learning outcomes of the course being proposed?**	◉ Yes ○
	If YES, explain and offer brief rationale:	
	The course content and student learning outcomes have been modified to be taught at a 400-level course and to includ a global focus. We propose this course to be included as a UK Core Global Dynamics course.	
5.	**Course Relationship to Program(s).**	
a.*	**Are there other depts and/or pgms that could be affected by the proposed change?**	◉ Yes ○
	If YES, identify the depts. and/or pgms:	
	Natural Resources and Environmental Science; Landscape Architecture	
b.*	**Will modifying this course result in a new requirement[7] for ANY program?**	○ Yes ◉
	If YES[7], list the program(s) here:	
6.	**Information to be Placed on Syllabus.**	
a.	☐ Check box if changed to 400G or 500.	If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* between under graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading course for graduate students. (See *SR 3.1.4.*)

[1] See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair.* If Chair deems the change as "not minor," the form will b appropriate academic Council for normal processing and contact person is informed.
[2] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] Signature of the chair of the cross-listing department is required on the Signature Routing Log.
[4] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.
[5] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting gene least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)
[6] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.
[7] In order to change a program, a program change form must also be submitted.

Course Review Form
Global Dynamics

Reviewer Recommendation
Accept ☐ Revisions Needed ☐

Course: FOR 435

Using the course syllabus as a reference, identify when and how the following learning outcomes are addressed in the course. Since learning outcomes will likely be addressed multiple ways within the same syllabus, please identify a representative example (or examples) for each outcome.

☐ Course activities which enable students to demonstrate a grasp of the origins and shaping influence of human diversity and issues of equality in the world.

Date/location on syllabus of assignment:
~early January

Brief Description:
Lecture, discussion, short writing assignments, quizzes, and exams focus on the dynamic relationship of human attitudes towards and use of natural resources throughout history, including non-sustainable resource use patterns that have led to major events in human history such as colonization of the New World, Africa, and Oceania by Europeans, and the emergence of new technologies that have resulted in political, social, and economic changes that have strongly shaped the current global disparities in geopolitical influence and economic power, led to rampant cultural homogenization and extinction, and ultimately strongly shaped the fate of many societies.

☐ Course activities which enable students to demonstrate an understanding of the civic and other complexities and responsibilities of actively participating in a diverse, multiethnic, multilingual world community.

Date/location on syllabus of assignment:
All semester

Brief Description:
Book readings (e.g. Maathai 2007, Revkin 2014), short writing assignments, quizzes, and exams will provide an opportunity for students to demonstrate their understanding of the complexities, conflicts, and compromises involved with biodiversity conservation. The independent research project will allow students to identify topical areas and issues of biodiverstity conservation, organize and synthesize information from appropriate sources, and derive solutions to conservation problems. Class discussions coupled with short answer assignments (e.g. 5 minute drills) will be used to help facilitate active thinking and stimulate conversation.

☐ Course activities which enable students to demonstrate an awareness of how individual and collective decision making and civic responsibilities often generate ethical dilemmas, conflicts, and trade-offs that must be thoughtfully evaluated, weighed, and resolved.

Date/location on syllabus of assignment:
All semester

Brief Description:
Required book readings in particular (Maathai 2007, Revkin 2014), highlight culture-specific conservation challenges and conflicts associated with deforestation, and its relationship to environmental justice, human rights, and political and economic power. Peer-reviewed papers and articles further reinforce the challenges of biodiversity in areas of geopolitical and cultural conflict.

☐ Course activities which enable students to demonstrate an awareness of major elements of at least one non-US culture or society, and its relationship to the 21st century context. This does not preclude a studied examination of the historical evolution of such issues, or an emphasis on one prominent time period.

Date/location on syllabus of assignment:
March-May

Brief Description:
For example, in readings, lecture and discussion I use a case study of the Masai people of Kenya to illustrate the conflicts that has arisen between biodiversity conservation and agriculture as land use has shifted from hunter-gatherer to pastoral lifestyles, and as governance has changed from tribal to natiion-state. A brief history of these people and their culture, and a case study of environmental activist Wangari Maathai, provides the backdrop for understanding changing attitudes and recent conservation actions implemented to sustain their livelihoods, preserve the savanna ecosystem and its biota, and provide opportunities for ecotourism that is an important component of the Kenya economy. We will also be doing a (TBD) live dialogue with a Kenyan Masai scout from the Masa Mara Region via Skype to faciliate discussion and share perspectives on conservation and culture.

☐ Course activities which enable students to demonstrate an understanding of how local features (economic, cultural, social, political and religious) of urban or rural communities, ethnicities, nations and regions are often linked to global trends, tendencies, and characteristics that mutually shape one another.

Date/location on syllabus of assignment:
Feb-March

Brief Description:
In lecture and discussion I use a case study focused on Malawi, one of the poorest countries in Africa. Here, we discuss how the local, highly biodiverse freshwater lakes of Malawi and Chilwa are being overexploited by fisherman to feed an increasingly populous country, the impacts these actions have on other aspects of the Malawian and southern African economies, the lake ecosystems, and how this affects foreign aid and human health in this area. Another example used is the growing middle class economy and rising income of China that has created an increasing demand for wildlife products (e.g. shark fins) that is threatening some species from extinction as a result of overexploitation.

☐ Evidence that this course's learning environment encourages students to actively learn about, and gain understanding of, at least two of the following:

- social, cultural, and institutional change;
- civic engagement;
- regional, national or cross-national comparisons;
- power and resistance.

Date/location on syllabus of such evidence:
Mid-March thru May

Brief description:
In particular, the readings about Aldo Leopold, and by Revkin (2014) and Matthai (2007) strongly place biodiversity conservation into a first person or biographical account where civic engagement, resistance to established political institutions, and inequality are pivotal to enacting broader societal changes and institution of measuers that have resulted in greater awareness of, and improvements in, biodiversity

conservation. The course also addresses social, culture, and institutional change, particularly during the first two lectures which cover the dynamics of human attitudes and actions towards nature over the course of human history, and the implications for our current globalized society.

☐ An assignment, constituting a minimum of 15% of the course grade, which can be submitted as an artifact of the above set of six student learning outcomes.

Date/location on syllabus of such an assignment:
entire semester

Brief description:
Students compose a peer-review literature-based research paper on a non-U.S. global conservation topic focused on biodiversity conservation (one or more target species or biological communities/ecosystems) and its dynamic relationship between human use of these resources, and associated issues of political or economic power, human rights, and equality. Students must demonstrate an understanding of how local, regional, or national cultures and economies influence the viability of non-human species and vice-versa, and how these are linked to larger global patterns of resource use. They must also discuss past, present, and potential future ethical dilemmas posed by loss, change, or decline of the target species, ecosystem, or community, and propose and argue for two solutions that lead to civically responsible, ethical, and sustainable use and conservation of the targets. The assignment is worth 20% of their total grade.

☐ The non-US focus constitutes at least 50% of the course.

Brief Description:
Given the course's innate focus on global conservation, the vast majority of examples of biodiversity loss, conservation, and management are from non-U.S. sources. Focal areas include eastern Asia, Brazil, and east Africa, but examples from all 6 human-occupied continents will be used.

☐ Palpable evidence that students make effective use of library facilities or information sources, when applicable, in order to demonstrate information literacy in the exploration of the course's major thematic foci.

Date/location on syllabus of such an assignment:
late February-early March; latter 1/3 of the semester

Brief description:
In support of the lecture and discussion topic on the concept of extinction, students are assigned a list of 20 species for which they must use online conservation databases (e.g. Natureserve, IUCN Redlist) to answer questions related to the conservation status and population trends for each, and the human activities that threaten each. This exercise familiarizes students with the presence of these important information sources and relevant database terminologies, how these data can be used to inform research and management of biodiversity, and knowledge about threats to each species long-term viability.

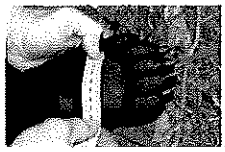
And as previously mentioned, students also will compose a peer-review literature-based research project report on a non-U.S. global conservation topic focused on biodiversity (one or more target species or biological communities/ecosystems). Students must demonstrate an understanding of how local, regional, or national cultures and economies influence the viability of non-human species and vice-versa, and how these are linked to larger global patterns of resource use. They must also discuss

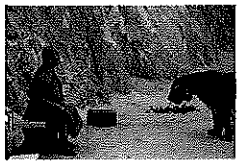
past, present, and potential future ethical dilemmas posed by loss, change, or decline of the target species, ecosystem, or community, and propose and argue for two solutions that lead to civically responsible, ethical, and sustainable use and conservation of the targets. The assignment is worth 20% of their total grade.

Reviewer Comments:

Journal Share Review

CONSERVATION BIOLOGY
FOR 435 Section 001 (3 credit hours)
COURSE SYLLABUS
SPRING 2017



Class Date/Time: Tuesday and Thursday, 9:30-10:45 AM, Room 113

Instructor: **Dr. John J. Cox,** Assistant Professor, Wildlife Ecology/Conservation Biology
Office: 102 T.P. Cooper Bldg. Office Telephone: (859) 257-9507
E-mail: jjcox@uky.edu; Webpage: http://www.ca.uky.edu/forestry/cox.php

Dr. Cox's Office Hours: Tuesdays and Thursdays 10:45-11:45 unless noted on the door or by email.

Getting to know and interacting with instructors is a very important component of the college experience! I'm just across the hall from where class is taught and am always eager to meet with students. I would love to hear your perspectives, thoughts, and experiences about the course, and also welcome conversations about career, job and research opportunities, and related issues. Please make an appointment if you want to ensure I'm there to meet you. Otherwise, please just come by and knock on the door.

Teaching Assistant: **Ms./Mr. J. Doe,** Room 1xx

T.A. Office Hours: Tuesday 12-1pm. Please contact her in advance if you would like to set up an appointment at other times.

Prerequisites: Introductory biology course, or consent of instructor

Required Texts: Kolbert, E. 2014. **The Sixth Extinction: An Unnatural History.** Picador. New York, NY. 319 pp.

Maathai, W. 2007. **Unbowed: A Memoir.** Anchor Group Publishing.

Revkin, A. 2004. **The Burning Season**: The Murder of Chico Mendes and the Fight for the Amazon Rain Forest. Island Press, Washington, D.C.

Other Texts I Use: Primack, R.B. 2014. **Essentials of Conservation Biology**. 6th Edition. Sinauer Associates Inc., Sunderland, MA.601 pp.

Sodhi, N., and P.R. Ehrlich. 2010. Conservation Biology For All. Oxford University Press. Oxford, England. Made generously available as a free pdf download at: http://www.conbio.org/publications/consbioforall/ You must install Adobe Reader to view this text; the software can be downloaded for free at: http://get.adobe.com/reader/

Other Needs: A basic scientific calculator for some in-class problem-solving and exams.

Course Description from the Course Bulletin:

Review the ethical foundations of conservation biology, discuss the scientific evidence that illustrates recent rapid loss of biological diversity at multiple spatial and temporal scales, identify and elaborate on the causative factors of biodiversity loss, discuss various strategies for conserving biodiversity, and discuss ways that various human cultures and associated resource use influence non-human life and the human societies that depend on them. Conservation biology is multidisciplinary in scope and discussion topics include wildlife management, restoration ecology, economics, ethics, geology, evolution, philosophy, phylogeny, taxonomy, genetics, behavioral ecology, population ecology, disease, sociology, sustainable living, and human dimensions. Conservation topics will be global in scope, with well-studied case examples used to support class activities.

Course Overview:

This 3-hour credit course is designed to immerse students in the field of conservation biology (con bio, for short) a relatively new, multidisciplinary field of study that traditionally focuses on the patterns and processes that contribute to Earth's biological diversity (biodiversity). Formed in response to the global loss in biodiversity, conservation biology is a value-laden, crisis discipline that not only focuses on biodiversity (including human diversity), but importantly identifies strategies to reduce or prevent further extinction of non-human species and the human communities and cultures that depend on them. In this course, science and the social sciences are carefully interwoven using a select number of global case studies to showcase the dynamic complexity of human attitudes, perceptions, and sustainable and unsustainable use of biological resources, and the multi-scale (local, national, regional, or global) consequences that affect political and economic power and equality in human societies from ~15,000 B.C. to present. Conservation biology is multidisciplinary in scope, and therefore we will discuss topics in a diversity of areas including wildlife management, world history, restoration ecology, economics, ethics, geology, evolution, philosophy, phylogeny, taxonomy, genetics, behavioral ecology, population ecology, disease, sociology, sustainable living, and other human dimensions.

Student Learning Outcomes:

After completing this course, the student will be able to:

1. Explain historical origins, environmental ethics, and distinguishing characteristics of conservation biology as they pertain to changing use of, and human attitudes towards, natural resources over the past 15,000 years.
2. Explain how past and present select human cultures and entities (e.g. nation-states, empires) have used biological resources in ways that have not only impacted the viability of single species and ecological communities, but changed global power dynamics and the fate of human societies.
3. Summarize and explain the fundamental primary threats to biodiversity, and their political and sociological underpinnings.
4. Explain common biodiversity valuation terminology and methods, how these are distinctly perceived and impacted by different human societies, and the implications for power and equality across ethic and cultural groups.
5. Converse with others using the common terminology of conservation biologists, also shared by other fields such as diverse as forestry, ecology, economics, genetics, ethics, and wildlife management.
6. Explain the types, patterns, and processes that characterize and influence biological diversity, and how those are distinctly perceived and impacted by different human societies.

7. Understand basic population biology concepts, as well as popular non-science based concepts of species and human cultural viability, particularly as it relates to the conservation and management of small populations.
8. Explain and critically examine common general practical approaches for conserving biodiversity, and compare and contrast examples of their implementation across a diversity of cultures.
9. Explain key conservation laws and agreements, and understand the complexities between culture and the likelihood of adoption and enforcement of these measures.
10. Compare and contrast strategies of biodiversity conservation at various scales.

And

You will have:

11. Through short writing assignments and a research report have improved your communication and comprehension skills relevant to the field of conservation biology.
12. Gained insight into the diverse activities of conservation professionals and how they approach and solve problems.
13. Improved clarity about your interest in pursuing a career in conservation biology or a related field.

Classroom Activities: In class activities include a combination of lectures, discussions, in-class writing, group exercises, demos, problem-solving, quizzes, video presentations, exams, and outside speaker presentations.

Class Lectures/Course Website: Class lecture outlines will be directly e-mailed to students and will be posted on my official UK course website (see page 1) as Powerpoints saved as pdfs. Please make sure to note that in addition to the required texts, I also incorporate a great deal of outside material synthesized from other texts, scientific papers, reports, etc. Also on my website I will post field trip, campus events, links to peer-review scientific articles, and other information pertaining to or related to this course.

Course Evaluation (Grades): Evaluation (your grade) in this course is based on the cumulative points (800 total possible) you receive for the listed assignments below:

Activity	Points Each	Total Points	% Total Grade
Class Participation/Short Writing	Variable	40	5.0
Quizzes and Assignments	Variable	100	12.5
Research Project	160	160	20.0
Regular Exams (n = 3)	100	300	37.5
Comprehensive Final Exam	200	200	25.0
Total		800	100.0

A = 720-800 pts. B = 640-719 pts. C = 560-639 pts. D = 480-559 pts. E = < 480 pts.

Mid-term Grade: Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/Registrar/AcademicCalendar.htm)

Exams: Exams will consist of questions of various formats; multiple choice, fill in the blank, short answer, problem-solving, and essay are typical. Exam questions change yearly to reflect new material I incorporate into class lectures and activities. Each exam usually has one bonus question worth up to 5

points. I typically hold review sessions in Room 217 of Cooper after 5pm 1-2 days before exams if there is sufficient student interest.

- Sharing notes, studying in small groups, & asking questions are important strategies to perform well on exams; studying the night before the exam usually is not.
- I do not curve exam or final grades.
- Missed exams cannot be made up without a valid excuse (see attendance). Not knowing when the final exam is scheduled is not a valid excuse.
- The final exam is comprehensive in that it will include questions about material covered during the final quarter of the course (typically ~ 20%), *plus* important facts, concepts and ideas from the entire course (typically ~80%).
- If you score ≥ 75% on the comprehensive final exam I will drop your lowest test grade score and recalculate your final grade accordingly. I would strongly advise you not to underprepare for an exam thinking you can drop it later by doing well on the final.

Final Exam: The final exam will be held as per the Schedule of Classes for this semester. Its location will be the course classroom.

Quizzes and Assignments: During the course there will be a variable number of short-assignments and reading quizzes that represent 17.5% of the total points. (Class participation/short writing is 5% and the quizzes/assignments are 12.5 %.) The nature of short assignments will vary but may consist of brief essays, quantitative activities, group discussions, class participation, or other forms of evaluative exercises designed to stimulate learning and comprehension of course material. These may be conducted in or out of class depending on the assignment. Quizzes may be unannounced and given at the beginning or end of class. Some of these will be open notes, while others may not. It therefore pays to read assigned material and pay attention and participate in class.

- Scientific Papers: We will investigate the primary scientific literature dealing with conservation topics through use of assigned readings of peer-reviewed publications. *Material from these readings are almost always incorporated into quizzes and exams.*
- Other assignments: will primarily be investigatory or problem-solving exercises where you will have to explore current scientific literature and databases to answer questions individually or as small teams.

Assignment Grading Criteria:

- Good writing is important! Grammar, spelling, sentence structure, organization, and clarity are important evaluative criteria on all written and presentation assignments. Sloppy work will be penalized accordingly.
- Do your own work on assignments unless it states in the instructions it is a group or team assignment.
- Cutting and pasting written material from the web into an assignment is unacceptable (e.g. Wikipedia, etc.), and in extreme cases will be considered plagiarism. Please use your own words when completing assignments.
- Handwritten assignments will not be accepted.
- Please staple all assignments.
- E-mailed assignments will not be accepted unless you have a very good reason and my prior approval due to computer viruses/file sharing.
- Printing on both sides of paper is encouraged and preferred to reduce waste.

Class Participation and Short Writing Assignments: These will typically be short (10-15 minute) in-class writing periods to think and write about a particular question(s) or problem(s) presented in the reading or other assignment, and/or from that day's lecture and discussion material. These will be

graded more on the quality (clarity, thoughtfulness, logic, etc.) of your response and overall effort then on other grammatical criteria given the short time limit. You may be called on some occasions to discuss and defend your answers in class. Assigned points will vary with the nature of the work.

Research Project: You will conduct and report your research on a non-U.S. global conservation topic focused on biodiversity as follows:

- The report must not use specific case studies discussed in class, but shall focus on one or more of the major conservation biology issues (e.g. wildlife disease, climate change, overexploitation) covered in class in a way that not only provides a clear, science-based explanation of an issue, but that clearly identifies, explains, and integrates the dynamic relationship between human use (exploitation) of biological resources, and associated issues of political or economic power, human rights, and equality. It may focus on one or more human communities, target species or biological communities/ecosystems.
- Discuss past, present, and potential future ethical dilemmas posed by loss, change, or decline of the target species, ecosystem, or community. This includes human communities.
- Propose and argue for two solutions that lead to civically responsible, ethical, and sustainable use and conservation of the target species, ecosystem, or community.
- Incorporate at least 10 peer-reviewed publications (those reviewed by scientific peers; definition and specifics to be discussed in class) into your report.
- Formatting will follow the guidelines of the journal *Conservation Biology* which you can find here: *http://conbio.org/images/content_publications/ConsBiol_Author_Style_Guide_Sep2014.pdf* I'd also recommend printing a scientific article from this journal so that you can use it as a visual guide during the composition and editing process.
- The paper should be between 10-20 pages in length double spaced with 1 inch margins on all sides. Keep in mind that content is more important to your grade than trying to maximize page length.
- Grammar, spelling, sentence structure, organization, and clarity are important evaluative criteria on all written and presentation assignments. To help improve your writing on the research project, you will be submitting your **first draft** to the instructor for editing and comments by the deadline on the schedule. You will receive a fictional grade based on the quality of the initial draft. When you turn in your final assignment, ***you will provide a written response*** that using bulleted annotation addresses the requested edits and comments from the initial draft. If you decide not to edit the manuscript (i.e. your initial and final drafts are identical, or requested edits and comments were not addressed), your final grade will be identical to or close to your first draft grade.

Classroom Policy, Expectations, and Professionalism:

Excused Absences:

Students need to notify the professor of absences prior to class when possible. Senate Rules 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php.

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Per Senate Rule 5.2.4.2, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Verification of Absences:
Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness, or death in the family. Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.

Attendance: In Fall 2013, the Department of Forestry adopted a Code of Conduct that mandated that all forestry courses implement an attendance policy that penalizes students a letter grade after missing $\sim\leq$ 10-15% of the regular meeting times of the course. In compliance with the new attendance policy in this course, ***you will drop one letter grade for every 3 unexcused absences. No exceptions. However, if you have perfect attendance I will add 10 points to your final grade.***

- Attendance is taken during every class using a paper sign-in sheet. It will be your responsibility to make sure you sign it if you're in class.
- Excused absences include illness, death of family member, and others officially listed in UK regulations.
- Please provide me with advanced notice if you are going to miss class and legitimate documentation to support your excused absence when you return.
- Repeatedly showing up more than 10 minutes late will result in a warning, and if continued, you will be counted absent each day it occurs afterwards.

Assignments and Exams Missed During an Absence:
- You cannot make up assignments or exams without an excused absence.
- If you are absent for any reason it will be your responsibility to collect materials (e.g. handouts) and become aware of assignments missed during your absence.

Punctuality/Due Dates: Unless otherwise specified:
- We will leave at designated times for field trips.
- All assignments will be due at the end of the class period on the date assigned for completion.
- Printing and computer complications are not legitimate excuses for turning in late assignments.
- ***Assignments turned in after class and before 5pm of the due date will incur a 10% penalty per hour. That means if you turn in an assignment 5 hours after it's due and before 5pm you can only receive a maximum of 50% of the total points.***
- ***No assignments will be accepted after 5pm of the due date.***

Integrity (Cheating, Plagiarism, and Code of Conduct): In Fall 2013, the Department of Forestry adopted a Code of Conduct that mandated that all forestry faculty, staff, and students sign a pledge to uphold academic standards and conduct themselves with professional integrity. You are aspiring scholars, scientists and/or natural resource stewards, and hopefully, eager and motivated students and engaged citizens, and my expectations of you will be to conduct yourself in a professional manner.

Therefore, engaging in conduct unbecoming a UK student (e.g. cheating, plagiarism, lying about your assignments or absences, signing in for someone else on the attendance sheet, using calculators or other electronic devices to store and retrieve answers) *are serious offenses that will result in an E for the course*. See university rules and regulations at: http://www.uky.edu/StudentAffairs/Code/part1.html for more details. If you have a question as to whether you may be violating these rules, particularly for plagiarism, *please* ask me for clarification.

- Individual assignments are defined as those activities you are to complete by yourself. This does not mean you can't occasionally provide or request guidance from classmates as you complete assignments, but it does mean that you should not be copying answers or providing answers to someone that has not or is not willing to complete the assignment on their own. Please do your own work.
- Team assignments are defined as those where a group of individuals work together and produce a team-influenced product(s), whether that is one or multiple items.

Academic Integrity
Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see http://www.uky.edu/Faculty/Senate/ for the current set of Senate Rules) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Mindfulness: In this course, I ask that you avoid the "tyranny of the immediate", temporarily disconnect yourself from your personal electronic media, and connect yourself to the *present* moment.

- Text messaging, net surfing, playing electronic games, using social media sites, Ebaying, stock trading, etc. are all activities that can be very distracting and disrespectful to your classmates, and are therefore prohibited activities in this class (I have peer-evaluated other instructors courses & frequently seen these attention-sapping effects). As such, you may not use cell phones, tablets, and personal laptops in this class and during activities on field trips unless they are incorporated into an official class activity.
- Excessive sleeping in class that consistently distracts others (e.g. snoring) may result in you being counted absent for the day, and if repeatedly offensive dismissed from the class

Civility/In Class Discussion and Participation: Although conservation biology is a ***value-laden*** field of science, my goal is to try and convey the scientific facts and important concepts to you within the current political and sociological contexts of human societies and multi-ethnic cultures. Whatever your political, religious, philosophical, or other beliefs, my hope is this course will provide you with an introductory foundation in conservation biology and make you a better prepared scientist and written and oral communicator. As such, in classroom discussions and activities please treat everyone with respect and as you would want to be treated. That doesn't mean discussions won't become lively, but we can debate and respectfully disagree with each other in a civilized manner during our discourse.

Preparation and Dedication (for aspiring natural resource professionals):
Will you be ready to effectively compete with thousands of others for jobs in the natural resource professions? Loving the outdoors and/or a passion for environmental issues seldom produces an ideal natural resources career path without the knowledge, skills, experience, and industriousness (work ethic) to make things happen. This course contains important foundational material, particularly for those of you on a natural resource profession career track. Forestry, wildlife, conservation, and even biological science jobs are extremely competitive. Take advantage of every opportunity to increase your knowledge, learn new and hone existing skills, and meet and interact with leaders in your field.

With that said, natural resource management and conservation professionals are, compared to other professions, a relatively small and closely connected collective. Agencies, NGOs, academicians, consulting agencies, etc. are always searching for high quality candidates for entry-level positions into the workplace or for graduate studies. Choice positions and projects are *highly* competitive. I'm always pleased and willing to write letters of recommendation for those who excel in any of my courses. Your letter will reflect your performance in my class if that's the only means I have to evaluate you.

Field Trips: Field trips are designed to provide you with opportunities to visit places, people, and interact with organisms usually where biodiversity conservation and/or wildlife or natural areas are a focus of management, research, and education, but also some sites may represent a glaring lack of consideration for biodiversity. Because the class enrollment is at max enrollment, only 2 Saturday field trips will be offered, with a maximum of 36 students per trip. A sign-up sheet will be distributed when trip dates are established. Unless the weather is unusually bad we will go rain or shine. Young natural resource/conservation professionals would be wise to take advantage of these kinds of opportunities.

- You can earn 10 Bonus points for attendance on one field trip and successful completion of the short accompanying written assignment. You will not earn bonus points for going on a second trip, but may attend regardless if enrollment is < 36 students.
- You must adhere to the UK drug and tobacco policy on all field trips.

- PDAs can be used during transit times to our destinations but not during activities.
- Transportation will be provided for long distance trips, but you are free to drive yourself and classmates if you wish. Exact trip dates will be determined depending on weather and other factors.
- You must be a UK employee, 23 or older to drive a university 11-passenger van AND successfully complete the online 20 minute training.

Trip 1: ~ mid-late March: Pine and Black Mountains, Blanton Forest, and/or Robinson Forest southeastern Kentucky. Topics: Landscape-scale conservation and rural communities (all day Sat trip).

Trip 2: ~ mid-April: Griffith Woods, Harrison County, KY, and/or Cincinnati Zoo Center for Reproduction of Endangered Wildlife: Topics: local conservation in rural communities; multimedia multitudes: conservation education challenges in reaching non-traditional audiences (Half to all day Sat trip).

Accommodations due to disability: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/.

Emergency Situations: If an emergency arises in this classroom, building or vicinity, your instructor will advise you of actions to follow to enhance your safety. If a situation requires emergency shelter (i.e., during a severe weather event), the nearest shelter location is the basement. If building evacuation occurs (i.e., fire alarm), follow posted evacuation routes and assemble on the sidewalk outside the front of the building so the instructor can help ensure their students have evacuated the building safely and they are not hindering emergency personnel access to the building. If you may require assistance during an emergency, notify the instructor at the beginning of the semester. In order to prepare for emergencies while on campus please continue to the below links for detailed emergency response guidelines: the UK Division of Crisis Management & Preparedness website (http://www.uky.edu/EM/emergency-response-guide.html) and the College of Agriculture, Food and Environment (http://www.ca.uky.edu/). To receive emergency messages, sign up for UK Alert (http://www.uky.edu/EM/UKAlert). Always turn cellular phones to silent mode when entering the classroom. If you observe or receive an emergency alert, immediately and calmly inform your instructor.

FOR 435 General Topic Schedule Spring 2016 (Subject to change)

Date	Course Topic(s)	Assigned Reading(s)
xx-Jan	Course Overview; Historical Survey of Human-Nature Relationship and Global Historical Foundations of Conservation Biology	Kolbert Chpts 1-3
xx-Jan	Historical Survey of Human-Nature Relationship and Global Historical Foundations of Conservation Biology; Primer on Conservation Values and Ethics	Kolbert Chpts 1-3;
xx-Jan	Primer on Conservation Values and Ethics	Handout "Religion and Conservation"
xx-Jan	Biodiversity Valuation: Ethics; Aldo Leopold and the Land Ethic	Leopold Handout; Video: "A Green Fire"
xx-Jan	The Land Ethic Across the Globe	Li et al. 2013, Shen et al. 2016. Handout "Islam and Marine Conservation"
xx-Feb	Biodiversity Valuation: Ecological Economics	Video: "To the Last Drop" (Alberta Tar Sands and Cree Native Americans)
xx-Feb	Biodiversity Patterns and Measurement	Kolbert Chpts. 4-6; **Conservation Database Assignment**
xx-Feb	Biodiversity Patterns and Measurement	Kolbert Chpts. 4-6
xx-Feb	**EXAM 1**	
xx-Feb	Threats to Biodiversity: Extinction and Species Vulnerability to Extinction	Kolbert Chpt. 11-12
xx-Feb	Threats to Biodiversity: Extinction and Species Vulnerability to Extinction	Revkin 2014
xx-Feb	Habitat Loss and Degradation	Walker et al. 2013; Revkin 2014 **Research Topic Due**
xx-Feb	Habitat Fragmentation	Terborgh et al. 2001; Revkin 2014
xx-Mar	Overexploitation	Myers et al. 2007; Revkin 2014
xx-Mar	Invasive Species	Revkin 2014
xx-Mar	Invasive Species/Climate Change	Kolbert Chpts. 9; Revkin 2014
xx-Mar	Climate Change	Kolbert Chpts. 7-8; Mattai 2007
xx-Mar	Disease	Kolbert Chpt 10; Mattai 2007
xx-Mar	**EXAM 2**	
xx-Mar	Conservation Genetics and Small Populations	Mattai 2007
xx-Mar	Conservation Genetics and Small Populations/Applied Population Biology	Mattai 2007
xx-Apr	Applied Population Biology/ Species, Landscape, and Ecosystem Approaches to Conservation	**Research Project First Draft Due**
xx-Apr	Applied Population Biology/ Species, Landscape, and Ecosystem Approaches to Conservation	Li and Pimm 2016; Mattai 2007.
xx-Apr	Ex-Situ Conservation Strategies	
xx-Apr	Protected Area Design and Management	Lasky et al. 2011
xx-Apr	Protected Area Design and Management; Role of Unprotected Lands in Conservation	Brady 2012.
xx-Apr	**EXAM 3**	
xx-Apr	Restoration Ecology;	Video: Green Gold.

		Research Project Due!
xx-Apr	Conservation in Human Dominated Landscapes	Linnell et al. 2015
xx-May	Conservation in Human Dominated Landscapes	Nepstad et al. 2006; Newton et al. 2015
xx-May	**FINAL EXAM DAY/TIME**	

List of Assigned Paper Readings

Brady, L. 2012. How wildlife is thriving in the Korean peninsula's demilitarized zone. The Guardian. 13 April 2012. http://www.theguardian.com/environment/2012/apr/13/wildlife-thriving-korean-demilitarised-zone

Lasky, J.R. W. Jetz, and T.H. Keitt. 2011. Conservation biogeography of the US–Mexico border: a transcontinental risk assessment of barriers to animal dispersal. Journal of Conservation Biogeography 10.1111/j.1472-4642.2011.00765.x

Li, et al. 2013. The role of Tibetan Buddhist monasteries in snow leopard conservation. Conservation Biology 28:87-94.

Li, B.V., and S.L. Pimm. 2016. China's endemic vertebrates sheltering under the protective umbrella of the giant panda. Conservation Biology 30:329-339.

Linnell et al. 2015. Framing the relationship between people and nature in the context of European Li et al. 2013. The role of Tibetan Buddhist monasteries in snow leopard conservation. Conservation Biology 28:87-94.

Myers et al. 2007. Cascading effects of the loss of apex predatory sharks from a coastal ocean. Science 315:1846-1850.

Nepstad, D.C., Stickler, C.M. & Almeida, O.T. 2006. Globalization of the Amazon soy and beef industries: opportunities for conservation. Conservation Biology 20:1595-1603.

Newton, P., H.N. Alves-Pinto, and L.F.G. Pinto. 2015. Certification, forest conservation, and cattle: theories and evidence of change in Brazil. 8:206-213.

Shen, Z., S. Li. and D. Wang. 2016. Viable contribution of Tibetan sacred mountains in southwestern China to forest conservation. Conservation Biology 29:1518-1526.

Terborgh et al. 2001. Ecological meltdown in predator-free forest fragments. Science 294:1923-1926.

Walker, N.F., Patel, S.A. & Kalif, K.A.B. 2013. From Amazon pasture to the high street: deforestation and the Brazilian cattle product supply chain. Tropical Conservation Science 6:446-467.

Unknown author. 2014. Islam and Marine Conservation. The Islamic Monthly. http://theislamicmonthly.com/islam-and-marine-conservation/