

## Instructor Info and Office Hours

Dr. Ian M McCullough, Research Specialist, Department of Fisheries and Wildlife  
Office Hours: Wednesdays 2-3 pm using this Zoom link:  
<https://msu.zoom.us/j/93123113333>. Password: **moose**. When you enter the Zoom, you will be placed in a waiting room, to assure student privacy.  
E-mail: [mccul169@msu.edu](mailto:mccul169@msu.edu). Please put FW 444 in the subject line.

In-person office hours are available by appointment only (Tuesday or Thursday) (but no appointments available as long as FW 444 is fully online).

Class time/location: Tuesdays and Thursdays 8:30-9:50am in Natural Resources 221 (beginning week of January 31, 2022)

## Course Description

Conservation biology is the interdisciplinary field focused on protecting the Earth's biodiversity, from genes to species to complex ecosystems. The course is designed as a training ground for you to become a successful conservation professional. In this course, we will 1) cover the historical foundations of the field, 2) examine and contextualize the ongoing biodiversity crisis, 3) explore past, current and emerging threats to biodiversity, 4) critically examine various approaches for maintaining and restoring biodiversity and 5) explore and develop creative solutions to actual conservation problems.

Conservation biology is somewhat distinct from other scientific fields in that learning to recite terms and concepts will only take you so far. Because the field is focused on finding creative solutions that can be applied to ongoing and often intensifying problems, conservation biologists must also practice unpacking and engaging with such problems to be successful. Thus, conservation biology leans heavily on collaboration (i.e., if conservation problems were easy to solve by yourself, we would have done so already). Effective, lasting conservation solutions not only require solid understanding of biology and ecology, but also the capacity for forming durable partnerships with diverse groups of scientists and stakeholders.

## Prerequisite

IBIO 355, FOR 404, PLB 441 or equivalent. Broadly, experience with basic biology and ecology is expected for this course.

## Textbook & Course Materials

There is no traditional textbook for this course. Required readings will be a mix of primary literature, web materials and a popular science book *The Sixth Extinction*.

### Title

The Sixth Extinction: An Unnatural History

**Author**

Elizabeth Kolbert

**ISBN**

9780805099799

## Recommended Texts & Other Readings

Many of the materials presented in this course will be based on the following texts. If you are looking for a good conservation biology textbook, both are excellent resources. Sher and Primack (2020) is more up-to-date and feels more like a traditional textbook, but is considerably more expensive (i.e., most things cost more than \$0.00).

Sher, A. A. & Primack, R. B. (2020). *Introduction to conservation biology*. Sinauer Associates, Incorporated, Publishers. 2<sup>nd</sup> Edition.

Sodhi, N. S. & Ehrlich, P. R. (Eds.). (2010). *Conservation biology for all*. Oxford University Press. **Available for free online as an e-version:**

<https://www.mongabay.com/conservation-biology-for-all.html>

## Course Structure

This course will be delivered in person\*\* but require you to access materials online through D2L. You will need your MSU NetID to login to the course from the D2L homepage (<http://d2l.msu.edu>).

Although the format may vary occasionally, in general, we will cover one major topic per week (e.g., climate change). On Tuesdays, you can expect a lecture with some interactive content. On Thursdays, you can expect a discussion, which will draw from lecture and readings. For the most part, there is one written homework assignment and some reading each week. These will be announced no later than the preceding Friday.

Tuesday lecture: Lecture lengths will vary, but will be shorter than a “normal” course lecture. In other words, lectures will be broken up with interactive content or short discussion. You are encouraged to ask questions during lectures. PDF version of lecture slides will be posted after lectures are delivered.

Thursday discussion: Loosely termed “Discussion”, Thursdays will consist of a mix of full-class and small-group discussions, group activities and guest speakers (or related discussions). These various activities will draw from the weekly lectures, readings and homework that you are expected to have completed prior to the start of discussion on Thursdays. Due to the highly collaborative nature of conservation biology, this portion of the course will emphasize work in small groups. Participation and engagement in Thursday discussions is not only part of your grade, but is important both for your success in mastering course material and developing your ability to work toward creative, collaborative conservation solutions.

**\*\* As of 12-31-21, MSU has announced that most courses (including FW 444) will be online for at least the first three weeks of the semester. As long as this policy remains in place, the following will apply to the FW 444 course structure:**

- **Tuesday lectures will be delivered asynchronously** (i.e., pre-recorded) on D2L. You are expected to have watched these prior to Thursday discussions.
- **Thursday discussions will occur synchronously on Zoom** (<https://msu.zoom.us/j/97765955151>; password: consbio)
  - Please make sure you have the most up-to-date version of Zoom available. Check here for help: <https://itservicedesk.msu.edu/CAisd/pdmweb.exe>
- No in-person office hour appointments will be available as long as the course remains fully online

## Technical Assistance

If you need technical assistance at any time during the course or to report a problem, you can:

- Visit the [MSU Libraries Discovery Services Site \(https://lib.msu.edu/dls/\)](https://lib.msu.edu/dls/)
- Visit the [Desire2Learn Help Site \(https://help.d2l.msu.edu/\)](https://help.d2l.msu.edu/)
- [Visit the MSU IT Help & Support Site \(https://tech.msu.edu/support/help/\)](https://tech.msu.edu/support/help/), call (517) 432-6200 or toll free (844) 678-6200, or email [ithelp@msu.edu](mailto:ithelp@msu.edu)

## Resource Center for Persons with Disabilities (RCPD)

We (Michigan State University and its faculty) are committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities (RCPD). To make an appointment with a specialist, contact (517) 353-9642 or TTY: (517) 355-1293. RCPD can be accessed online at: <https://www.rcpd.msu.edu/get-started>

Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation ("VISA") form. Students with VISAs should email me their forms as soon as possible.

## Course Objectives and Learning Outcomes

### Course objectives:

1. Assess complex issues in biodiversity conservation with global implications and develop durable approaches and solutions to these issues
2. Develop a firm understanding of the wide range of threats to biodiversity and why these matter from evolutionary, ecological and socioeconomic perspectives
3. Be able to evaluate critically various approaches to maintaining and restoring different aspects of biodiversity
4. Engage in problem-solving, experiential learning and innovative practices toward the development of new conservation goals and/or principles

### Learning outcomes:

By successfully completing this course, you should be able to:

1. Collaborate effectively within this learning environment via engagement, preparedness, discussion and pursuit of assignments
2. Engage in developing recursive and creative approaches to problem-solving and demonstrate an evolving understanding of major conservation issues over the course of the semester
3. Demonstrate a command of the current biodiversity crisis, conservation theory and general conservation approaches
4. Conceive a solution to a real-world conservation problem, develop goals, establish process and track progress
5. Frame and communicate complex ideas both verbally and in writing that are relatable to broad audiences

## Grading

The table below describes the graded course components and their contributions to the overall course grade. Although you will be asked to work collaboratively on some occasions, assignments will generally be submitted and graded individually.

Component	Percent of grade	Comment
Homework	20%	Graded based on completion. Don't mess these up! (1 drop)
Participation and engagement	10%	Graded based on completion. Don't mess these up! (1 drop)
Conservation Solutions Project	30%	Outline = 10% Final paper = 20%
Mid-term exam	20%	Online on D2L
Final exam	20%	Online on D2L

All grades will be posted on D2L. I will do my best to post grades as soon as possible. In general, you can expect the following as upper limits of grading speed:

- ~ 1-week turnaround: anything with a completion grade (e.g., homework, short in-class assignments)
- ~ 1-2 week turnaround: anything that requires hand-grading and/or providing written feedback (mid-term, aspects of Conservation Solutions Project)
- Final exam: by the date final grades are due! Will likely be about 1 week after the exam

**Homework:** Most weeks there will be a short homework assignment associated with that week's lecture and/or readings. These will generally entail written responses of a paragraph or a few sentences. Homework will be "graded based on completion", with completion defined as a thoughtful, on-time submission that shows reasonable effort, adequately addresses the prompt and follows basic directions. Essentially, these are pass/fail. I reserve the right to change these grading policies if it becomes clear that people are missing the mark.

**Participation and engagement** will be evaluated as follows:

- You do not earn points simply by showing up per se, but you will earn points for participating in in-class discussions and associated activities. Therefore, if you are absent, you should contact me to make alternative arrangements. Similar to homework, these activities will be “graded based on completion”, with completion defined as a thoughtful, on-time submission that shows reasonable effort, adequately addresses the prompt and follows basic directions. Essentially, these are pass/fail. The lowest graded assignment will be dropped. As with homework, I also reserve the right to change these grading policies if necessary.

**Exams:** The current plan is for exams to be administered asynchronously online through D2L. Essentially, these are take-home exams that you must complete within a certain time window. Exams are effectively open book due to the online format, but are not designed to provide time for you to look up all topics (i.e., you can expect time to look up terms and definitions, but not learn key concepts). You are expected to work alone during exams. The final exam will focus on materials covered after the mid-term.

**Questions about exam answers or other grades:** If you think an alternative answer to a question is a better choice than the correct answer indicated, please email a written summary of your reasoning within the first week after the exam grades (or other grades) have been posted. You are also welcome to attend office hours to discuss grades. Please do not use class time to discuss grades.

**Conservation Solutions Project:** You will receive full details of this project midway through the semester, but here is a short summary. You will identify a real-world conservation problem of interest and develop and propose a novel, creative solution to this problem. You will produce a 2-page outline and a 5-page final paper, due near the end of the semester. There will be other, smaller checkpoints along the way to facilitate your progress (including assignments that may count as homework or participation/engagement). Although you will receive individual grades, you will often be placed in groups to brainstorm topics and/or discuss your problems and solutions. For example, students working on projects related to marine conservation may be placed in a group for a class session to discuss their progress and challenges.

## Grading Scale

<b><i>Grade Point</i></b>	<b><i>Course Percentage</i></b>	<b><i>Performance</i></b>
4.0	90 to 100%	Excellent work
3.5	85 to <90%	Above average
3.0	80 to <85%	Good work
2.5	75 to <80%	Mostly good work

<b>Grade Point</b>	<b>Course Percentage</b>	<b>Performance</b>
2.0	70 to <75%	Average work
1.5	65 to <70%	Below average work
1.0	60 to <65%	Poor work
0	<60%	Failing work

## Late Work Policy

Most assignments in this course are assigned several days or weeks before the due date to give you the flexibility to arrange your schedule as needed and submit work on time. **Late assignments will not be accepted** except in the case of emergencies or overly extenuating circumstances. In the age of COVID, I want to be as accommodating as reasonably possible in terms of what constitutes an emergency or extenuating circumstances (e.g., types of personal hardship or technological failures), but **generally extensions will not be approved if requested at the last minute**. If you have a tough situation, related to COVID or not, that may interfere with your ability to complete assignments on time, please communicate with me as soon as possible so that I can accommodate accordingly. If you have an emergency that interferes with a deadline or your progress in the course in any way, please contact me as soon as safely possible.

**Makeup exams:** Makeup exams will be given only if you have a written medical excuse or have made prior arrangements. In the event of a medical excuse, please obtain a doctor's note and if possible, have the doctor specify how much time you need to recover (this helps determine a fair makeup date).

- If you have a medical emergency, please first seek whatever attention you need. As soon as it is safe to do so, please then contact me to arrange a makeup exam. Please also provide a doctor's note as described above.
- If you regrettably must attend a memorial service for a family member, please notify me in advance. Also, be sure to complete the University's Grief Absence Request Form.

## General Course Policies

### Diversity Equity and Inclusion

Diversity, equity and inclusion are important, interdependent components of everyday life at MSU and are critical to our pursuit of academic excellence. Our aim is to foster a culture where every member of the MSU community feels valued, supported and inspired to achieve individual and common goals with an uncommon will. This includes providing opportunity and access for all people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national or subnational origin, migratory status, disability/ability, political affiliation, veteran status and socioeconomic background.

### Commit to Integrity: Academic Honesty

Article 2.3.3 of the [Academic Freedom Report](#) states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, MSU Fisheries and Wildlife adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See [Spartan Life: Student Handbook and Resource Guide](#) and/or the MSU Web site: [www.msu.edu](http://www.msu.edu).)

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the [www.allmsu.com](http://www.allmsu.com) web site to complete any course work in this course. Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also the [Academic Integrity](#) webpage.)

## General College and University Policies

### Standard Course Dates (all times Eastern US)

Class Sessions Begin - 1/10/2022

Open adds end - 1/14/2022

Last day to drop with refund - 2/4/2022

Last day to drop with no grade reported - 3/2/2022

Class Ends - 4/29/2022

All other general college and university policies applicable to this course are available at <https://www.canr.msu.edu/academics/courses/policies>. Please review these policies.

Topics covered in these general policies include:

- Students with disabilities, Resource Center for Persons with Disabilities (RCPD) and accommodations
- Student rights under the family educational rights and privacy act (FERPA)
  - Student release authorization form
- Religious holiday policies
- Grief absence policies
- Students in distress policies
- MSU student athlete policies
- Course add-drop policies
- Honors options
- Course Management system policies
- Final exam policy and attendance
- Grade dispute policies
- Academic honesty and integrity, plagiarism and disciplinary procedures
- Disruptive behavior
- Harassment and discrimination policies
- RVSM University reporting protocols
- Limits to confidentiality
- Social media policy

- Web accessibility policies
- MSU Code of Teaching Responsibility
- SIRS
- Commercialization of lecture notes
- University Learning Goals