

# ANTHROPOLOGY 4J03: ECOHEALTH/ONE HEALTH AND THE HUMAN-PRIMATE INTERFACE

Fall

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## **Course Description**

EcoHealth originates from understanding health in the context of ecosystems and One Health has its origins in the management of disease threats to humans and animals. Both approaches are based on the assumption that the health of humans, animals, and the environment are inextricably linked. This course highlights primate conservation through an EcoHealth/One Health approach. Students will leverage the interdisciplinary nature of anthropology to understand how EcoHealth and One Health approaches can be used to mitigate the looming conservation crisis facing non-human primates.

## **Course Objectives**

By the end of the course students should be able to:

- Critically evaluate EcoHealth and One Health material from an anthropological perspective
- Conduct a literature review for a research paper
- Develop a EcoHealth/One Health research project focusing on primate conservation
- Conduct peer review of material in biological anthropology

## **Required Materials and Texts**

- Weekly readings will be from journal articles and book chapters that I will post on Avenue to Learn.

## **Class Format**

This course involves seminar discussions, group led discussion, and presentations.

## **Course Evaluation – Overview**

1. Class Participation – 10%, weekly in class
2. Term Paper Literature Review – 10%, October 7
3. Term Paper Draft for review– 10%, November 4
4. Peer Review of Term Paper – 10%, November 11
5. Term Paper – 20%, December 2
6. Final Presentation – 30% Nov 25/Dec 2
7. Peer Review of Final Presentation – 10% Nov 25/Dec 2

## **Course Evaluation – Details**

### **Class Participation - 10%, weekly in class**

To assess class participation, I will require students to hand in an exit ticket at the end of each class. An exit ticket will consist of students writing a response to a question related to each week's discussion or readings. Each ticket will be worth 1% and 10

tickets will be requested over the course of the semester. There will be no opportunity to make-up missing tickets.

### **Term Paper Literature Review – 10%, October 7**

You will be expected to produce a literature review for your term paper. The literature review should provide a review of the relevant literature for the topic you choose for your term paper topic. This literature review will become an important part of the introduction of your term paper. A literature review should provide an overview of the existing research conducted on your topic of interest and will act as a stepping stone for further investigation. I expect you to review and summarize at least 10 papers from recognized peer reviewed academic journals. The review itself should be no more than three-pages double spaced plus pages for your references. References should be written in APA format.

### **Draft of Term Paper (for Peer Review) – 10%, November 4**

You will be expected to provide a draft of your term paper to your peer review pairing (see below) and to Avenue to Learn on November 11. The draft of your paper should follow the format described for your term paper (see below). Although there will be no page limits you should provide ample text for your peer review partner to evaluate your paper. Your paper must incorporate at least 10 peer reviewed papers in the draft. You must use APA citation style.

### **Peer Review of Term Paper – 10%, November 11**

The purpose of peer review is for students to provide each other with editorial feedback on their term paper prior to their due dates. Students will be broken up into peer review pairings. Students will write their research proposals and final papers **individually** and then submit a first draft as a PDF to their partner and Avenue to Learn. Student editors will make proofing marks and comments directly on the PDF and on a separate peer review form. These reviews will be submitted for grades to Avenue to Learn on **November 11**. Each author will then revise their paper, taking the peer editing into consideration (see below for instructions for completing your term paper).

You will be given an opportunity to meet with your peer review pairing in class to meet to discuss project ideas and execution.

### **Term Paper – 20%, December 2**

You must submit a term paper based on a relevant to primate conservation that incorporates Ecohealth/ One Health and will preferably be related to one of the topics discussed in class. A successful report should incorporate a minimum of FIFTEEN (15) articles from peer reviewed journals. The paper should have a clear introduction, body, and conclusion. It should be typewritten 10-12 pages in length, double spaced, 12 point font, 1-inch margins. The references can be submitted on separate sheets. You must use APA citation style.

## **Final Presentation – 30% Nov 25/Dec 2**

### **Instructions (adapted from AAPA Guidelines for Podium Presentations):**

Students will conduct a 10-minute presentation using PowerPoint software. Following the presentation and if there is time there will be 2 minutes for questions. This is similar but slightly shorter than a typical talk at a conference (usually they are 12 min with 3 min for questions). The instructor will hold up a sign when there are 5 min, 3 min, and 1 min remaining. When time is up the instructor will stop the presentation and start the question period. You must finish your talk in the 10 min timeframe or risk losing points. Students must submit the PowerPoint for their presentation no later than the beginning of the class on **November 25**

## **Final Presentation (Peer Review) – 10% Nov 25/Dec 2**

Students will be asked to provide critical but constructive review of another student's presentation. The instructor will determine which presentation a student will review by lottery and will provide the information to the students at the beginning of class. The reviews will be collected at the end of the class.

## **Weekly Course Schedule and Required Readings**

### **Week 1 (September 9<sup>th</sup>)**

#### **Introduction to Course and Primate Conservation**

Recommended Reading:

- Ripple, W. J., Wolf, C., Newsome, T. M., Galetti, M., Alamgir, M., Crist, E., ... & 15,364 scientist signatories from 184 countries. (2017). World scientists' warning to humanity: a second notice. *BioScience*, 67(12), 1026-1028.

### **Week 2 (September 16<sup>th</sup>)**

#### **Why Conserve Primates?**

Readings:

- Chapter 2; Wich, S. A., & Marshall, A. J. (Eds.). (2016). *An introduction to primate conservation*. Oxford University Press.
- Alves, R. R. N., Souto, W. M. S., & Barboza, R. R. D. (2016). The Role of Nonhuman Primates in Religious and Folk Medicine Beliefs. In *Ethnoprimateology* (pp. 117-135). Springer, Cham.
- McConkey, K. R. (2018). Seed dispersal by primates in Asian habitats: from species, to communities, to conservation. *International Journal of Primatology*, 39(3), 466-492.

### **Week 3 (September 23<sup>rd</sup>)**

#### **Threats facing primates**

Readings:

- Estrada, A., Garber, P. A., Rylands, A. B., Roos, C., Fernandez-Duque, E., Di Fiore, A., ... & Rovero, F. (2017). Impending extinction crisis of the world's primates: Why primates matter. *Science advances*, 3(1), e1600946.
- Galán-Acedo, C., Arroyo-Rodríguez, V., Cudney-Valenzuela, S. J., & Fahrig, L. (2019). A global assessment of primate responses to landscape structure. *Biological Reviews*.
- Blair, M. E., Le, M. D., & Sterling, E. J. (2017). Multidisciplinary studies of wildlife trade in primates: Challenges and priorities. *American journal of primatology*, 79(11), e22710.

#### **Week 4 (September 30<sup>th</sup>)**

##### **Primate Conservation Film**

Readings: None

Notes: [ie. Assignment due, test, etc.]

#### **Week 5 (October 7<sup>th</sup>)**

##### **Introduction to EcoHealth and OneHealth**

Readings:

- Zinsstag, J. (2012). Convergence of Ecohealth and One Health. *Ecohealth*, 9(4), 371.
- Chapter 4, Cumming, D. H., & Cumming, G. S. (2015). One health: an ecological and conservation perspective. *One health: the theory and practice of integrated health approaches*. CABI International, Abingdon, UK. <http://dx.doi.org/10.1079/9781780643410.0038>, 38-52.
- Lerner, H., & Berg, C. (2017). A comparison of three holistic approaches to health: one health, EcoHealth, and planetary health. *Frontiers in veterinary science*, 4, 163.

Notes: **Literature Review 10% Due**

#### **Week 6 (October 14<sup>th</sup>)**

Reading Week – no class

#### **Week 7 (October 21<sup>st</sup>)**

##### **The Human-Animal/Primate Interface**

Readings:

- Fuentes, A. (2012). Ethnoprimateology and the anthropology of the human-primate interface. *Annual Review of Anthropology*, 41, 101-117.
- McLennan, M. R., Spagnoletti, N., & Hockings, K. J. (2017). The implications of primate behavioral flexibility for sustainable human–primate coexistence in anthropogenic habitats. *International Journal of Primatology*, 38(2), 105-121.

- McKinney, T. (2015). A classification system for describing anthropogenic influence on nonhuman primate populations. *American Journal of Primatology*, 77(7), 715-726.

### **Week 8 (October 28<sup>th</sup>)**

#### **Ecological Approaches to Studying Zoonoses**

Readings:

- Loh, E. H., Murray, K. A., Zambrana-Torrel, C., Hosseini, P. R., Rostal, M. K., Karesh, W. B., & Daszak, P. (2013). Ecological Approaches to Studying Zoonoses.
- Karesh, W. B., Dobson, A., Lloyd-Smith, J. O., Lubroth, J., Dixon, M. A., Bennett, M., ... & Machalaba, C. C. (2012). Ecology of zoonoses: natural and unnatural histories. *The Lancet*, 380(9857), 1936-1945.
- McMahan, B. J., Morand, S., & Gray, J. S. (2018). Ecosystem change and zoonoses in the Anthropocene. *Zoonoses and public health*, 65(7), 755-765.

Notes: [ie. Assignment due, test, etc.]

### **Week 9 (November 4<sup>th</sup>)**

#### **Emerging Infectious Diseases of Wildlife and Species Conservation Zoonotic and Environmental Drivers of Emerging Infectious Diseases**

Readings:

- Chapter 5; Atlas, R. M., & Maloy, S. (Eds.). (2014). *One Health: people, animals, and the environment*. ASM Press.
- Buttke, D. E., Decker, D. J., & Wild, M. A. (2015). The role of one health in wildlife conservation: a challenge and opportunity. *Journal of Wildlife Diseases*, 51(1), 1-8.
- Cunningham, A. A., Daszak, P., & Wood, J. L. (2017). One Health, emerging infectious diseases and wildlife: two decades of progress?. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 372(1725), 20160167.

Notes: **Draft Term Paper Due 10%**

### **Week 10 (November 11<sup>th</sup>)**

#### **EcoHealth/One Health in Primatology I**

Readings:

- Paige, S. B., Frost, S. D. W., Gibson, M. A., Jones, J. H., & Shankar, A. Switzer, WM, ... Goldberg, TL (2014). Beyond Bushmeat: Animal Contact, Injury, and Zoonotic Disease Risk in Western Uganda. *EcoHealth*, 11 (4), 534-543. <https://doi.org/10.1007/s10393-014-0942-y>.
- Chapman, C. A., Gillespie, T. R., & Goldberg, T. L. (2005). Primates and the Ecology of Their Infectious Diseases: How will Anthropogenic Change Affect Host-Parasite Interactions?. *Evolutionary Anthropology*, 14, 134-144.
- Goldberg, T. L., Gillespie, T. R., Rwego, I. B., Estoff, E. L., & Chapman, C. A. (2008). Forest fragmentation as cause of bacterial transmission among

nonhuman primates, humans, and livestock, Uganda. *Emerging infectious diseases*, 14(9), 1375.

- Travis, D. A., Lonsdorf, E. V., & Gillespie, T. R. (2018). The grand challenge of great ape health and conservation in the anthropocene. *American journal of primatology*, 80(1), e22717.

Notes: **Peer Review Due 10%**

### **Week 11 (November 18<sup>th</sup>)**

#### **EcoHealth/One Health in Primatology II**

Readings:

- Engel, G. A., and L. Jones-Engel. "Primates and primatologists: social contexts for interspecies pathogen transmission." *American journal of primatology* 74, no. 6 (2012): 543-550.
- Thatcher, H. R., Downs, C. T., & Koyama, N. F. (2018). Using parasitic load to measure the effect of anthropogenic disturbance on vervet monkeys. *EcoHealth*, 15(3), 676-681
- Tapanes, E., Detwiler, K. M., & Cords, M. (2016). Bat predation by cercopithecus monkeys: Implications for zoonotic disease transmission. *Ecohealth*, 13(2), 405-409.

### **Week 12 (November 25<sup>th</sup>)**

#### **Presentations**

Notes: **Submit PowerPoint of Presentation**

### **Week 13 (December 2<sup>nd</sup>)**

#### **Presentations**

Notes: **Term Paper Due 20%**

## **Course Policies**

### **Submission of Assignments**

Submission of participation exit tickets will be provided as hardcopies at the end of each class. Submission of Literature Review, Draft of Term Paper, Peer Review, and Final Term paper will be submitted digitally via Avenue to Learn. Students must submit their PowerPoint presentation on November 25<sup>th</sup> before class via Avenue to Learn regardless of which day they will be presenting.

### **Grades**

Grades will be based on the McMaster University grading scale:

<b>MARK</b>	<b>GRADE</b>
90-100	A+
85-90	A
80-84	A-



<b>MARK</b>	<b>GRADE</b>
77-79	B+
73-76	B
70-72	B-
67-69	C+
63-66	C
60-62	C-
57-59	D+
53-56	D
50-52	D-
0-49	F

### **Late Assignments**

Assignments submitted late will have 5% per day deducted from their mark. I will not accept submission more than 5 days late. If you think you might be late please come and see me before to discuss options (see below for absences due to illness).

### **Absences, Missed Work, Illness**

Students who expect to be absent from class or miss work due to illness or other legitimate reason for absence must contact me prior to the class or deadline.

Extensions may be granted for illness, provided students discuss this with me at least **one day** before the deadline. In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar, "Requests for Relief for Missed Academic Term Work." If you have any questions about the MSAF, please contact the Associate Dean's office.

<https://academiccalendars.romcmaster.ca/content.php?catoid=11&navoid=1698#Requests for Relief for Missed Academic Term Work>

### **Avenue to Learn**

In this course we will be using Avenue to Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

### **Turnitin.com**

In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please to go [Academic Integrity](#).

## **University Policies**

### **Academic Integrity Statement**

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at [Academic Integrity](#).

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

### **Academic Accommodation of Students with Disabilities**

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Policy for [Academic Accommodation of Students with Disabilities](#).

### **Religious, Indigenous and Spiritual Observances (RISO)**

The University recognizes that, on occasion, the timing of a student's religious, Indigenous, or spiritual observances and that of their academic obligations may conflict. In such cases, the University will provide reasonable academic accommodation for students that is consistent with the Ontario Human Rights Code.

Please review the [RISO information for students in the Faculty of Social Sciences](#) about how to request accommodation.

### **Faculty of Social Sciences E-mail Communication Policy**

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

## **Privacy Protection**

In accordance with regulations set out by the Freedom of Information and Privacy Protection Act, the University will not allow return of graded materials by placing them in boxes in departmental offices or classrooms so that students may retrieve their papers themselves; tests and assignments must be returned directly to the student. Similarly, grades for assignments for courses may only be posted using the last 5 digits of the student number as the identifying data. The following possibilities exist for return of graded materials:

1. Direct return of materials to students in class;
2. Return of materials to students during office hours;
3. Students attach a stamped, self-addressed envelope with assignments for return by mail;
4. Submit/grade/return papers electronically.

Arrangements for the return of assignments from the options above will be finalized during the first class.

## **Course Modification**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.