

Instructor:

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Office hours: Mon and Tues, 13.00-14.00
Prefer an appointment? : just ask



" IT'S CALLED FIRE.. IT RECYCLES WOOD! "

Lectures:

14:30 - 15:50: Tuesday, Thursday
WMEM001

Course Description

This course will examine past and present human interactions with Nature from an ecological perspective. To do this, students are first introduced to science as a way of knowing, the scientific method, and basic ecological principles. Using this knowledge, and these tools, we will then explore the story of humanity, beginning with the first humans 200,000(?) years ago, examining how they evolved in the context of their natural surroundings, the changes in niche, and biological adaptations that resulted from an intimate relationship with the natural world. This course is designed for non-science students. It is also offered in a distance education format. B.Sc. students CANNOT take this course for credit. Credit – 0.5. No Prerequisites.

Learning outcomes:

Science entertains a reputation of rigour, dogma, and difficulty. By the end of the course you will understand why we might think this and why it might not be the case. By the end of this course, you will be able to:

- 1) Evaluate the validity of knowledge based upon its type, origin, effect, and source
- 2) Recognise scientific sources of knowledge and design ways of acquiring more of it
- 3) Explain niche concept and apply it to the history of humans, human societies, and the natural world
- 4) Celebrate (and understand) the history of humanity, recognise the gaps that exist in knowledge and deduce ways of filling those gaps
- 5) Describe the changes in the relationship that humans have had with the natural world with respect to niche concept and ecosystem-thinking
- 6) Critically evaluate your own assumptions and reflect upon them
- 7) Delight in the behind-the-scenes true stories of discovery (unassessed learning outcome)

Resources

There is no text book for this course, but we're writing one for the future.

Notes: At the end of every week I will post a series of notes based upon the lecture slides. And, more importantly, there will be a list of thought-provoking questions. Please make sure that you go through these questions and do your best to answer them. There will be discussion threads set up for you to discuss the answers (there will likely not be one precise answer to any of them) and to explore different interpretations. I will not necessarily review the material in class but you are responsible for it and you are welcome to ask questions about them during lecture time.

Additional material: In the contents section of courselink you will find helpful documents and lots of great videos. Please make sure that you check them out.

Memes: Memorising is never fun (nor is it an effective means of learning), but making memes is! Throughout the semester you will be encouraged to contribute to a collection of course memes. Use this tool to learn simple concepts (like definitions) and share them with your colleagues to make it easier to study. These memes will be featured in the lecture material and the top ten will be approved for use as a **'notes page' when writing exams**. So the more that you submit and the more complex and appropriate they are, the more helpful they will be on your exam.

All of the print, digital, other resources available in the world: don't understand something? Then google it! You'll likely come across the answer and some even better (or funnier) stuff that is interesting! You may even find contradictory or suspect information. Make sure to share it with the rest of us via the discussion boards. It is expected that you will be accessing out-of-class information for studying and for your assignments.

The instructor: There are several times throughout the week when you can find me to chat about the course topics. Please take advantage of them, bring some of your fellow students, and start up a discussion during office hours, or by appointment.

Very cool Books of Interest

- Cavalli-Sforza, L.L. and Cavalli-Sforza, F. (1995) *The Great Human Diasporas: The History of Diversity and Evolution* translated from the Italian by Sarah Thorne. Addison-Wesley. [ISBN 0201442310](#), [9780201442311](#).
- Diamond, J. (1997). *Guns, Germs, and Steel: The Fates of Human Societies*. W.W. Norton & Company. [ISBN 0-393-03891-2](#). (kinda dull at the end but awesome generally)
- Diamond, J. (2012). *The world until yesterday*. Viking Press. ISBN [9780670024810](#)
- Sykes, B. (2001) *The Seven Daughters of Eve: The Science That Reveals Our Genetic Ancestry*, W.W. Norton, ISBN 0-393-02018-5.
- Wilson, E.O. (2002). *The Future of Life*. New York: Alfred A. Knopf. [ISBN 0-679-45078-5](#).

Course Content

Week		Lecture Topics
1.	Part 1 – The Foundation	1. <i>HUH?</i> – what are humans in the natural world?
2.		2. Ways of knowing – How do we know? Why do we know? What do we know? 3. The Scientific way of knowing – Hypotheses and Predictions for everyday life.
3.		4. Analyse niche! – Ecosystem concepts 5. Niche concepts: Invasion and subtraction stories
4.		6. Evolution at molecules –DNA, RNA, genes, proteins 7. The selections – Natural and sexual selection.
5.		8. Evolution at scale – From the big bang to 200,000 years ago in about two hours! 9. Evolution at scale – continued.
6.	Part 2 – Humans in the natural world	10. Evolution of us: from Mammals to Hominids MIDTERM – in class – October 9, 2014.
7.		11. Evolution of us: from Hominids to <i>Homo sapiens sapiens</i> 12. What we are: biological features
8.		13. A civilised world: the evolution of culture 14. A civilised world : the hunter gatherers
9.		15. A migratory world: the great human ‘migration’ 16. A sedentary world: post-migration impacts and new developments
10.		17. A domesticated world: tame, domestic, bottleneck and mechanisms 18. A faithful world: the evolution of faith
11.		19. A changing world: new ideas, possibility 20. Catch up lecture for when we get off schedule
12.		21. Review 22. Review

Methods of Evaluation

There will be two (2) assignments and two (2) exams in this course.

Assignment 1: What has changed the human niche?

Identify an object, person, or idea responsible for a change in the (or a) human **niche**. Provide an introduction to the topic, including a resume of the direction of the paper, give a brief and relevant history of the topic, describe the relevant human niche prior to the topic, describe the niche change, discuss the implications.

This is NOT an easy assignment. Two things are difficult: 1) selecting a topic and 2) developing the RELEVANT argument. We will address this in class beginning with the first lecture on niche concept. And then we’ll have a discussion thread available for your questions and, of course, you are welcome to ask during class, during office hours, or pretty much anytime. Do not leave this assignment to the last minute; writing it will be easy once you’ve figured out what you’re writing about.

You may choose to present your assignment in a form other than a written essay. In fact, we strongly encourage you to be creative: dance your assignment if you’d like. You must choose the format of the assignment by September 30, 2014 and it must be approved by the instructor if it is not the written

format. Remember: it must be of equal academic quality to receive equal evaluation. Arrangements will be made to facilitate how you choose to present. References must be submitted in written format.

Assignment 1: DUE November 13, 2014 by the end of class.

- 1) Choice of topic /5
- 2) Background information /5
- 3) Plausible description of pre-niche /5
- 4) Plausible description of post-niche and cause of change /10
- 5) Conclusion /2
- 6) References /3

Notes: Please use APA formatting for the references (in text, if you choose to write, and in the final list). Otherwise, use whatever format you'd like for the rest. Be formal, or not at all, be brief, or ramble on... If you choose to write, there is no word minimum or maximum (I find that if a minimum is used, the quality of the paper decreases as students count words and add text, or end up cutting out creative ideas in order to meet a maximum). If you choose to dance: then do it for as long as you need to get your information across.

Assignment 2: Your critical reflection on Humans in the Natural World

From the very first time that you join us in the very first class, please start reflecting on your experience. You may want to keep a short journal, or blog, or some other way to document your responses to the course material and the experience.

At some point before Dec. 1, 2014, hand in a critical reflection of your experience as a student of "humans in the natural world". You should discuss your attitudes, assumptions, previous experiences that lead to them, any changes, and how all of this will apply to your future academic (and beyond!) career. Does learning about science and the human niche matter to you? To your field?

There is no deadline for this because important reflections may come to you at the beginning or not until the end. **Please do not leave this for last minute** as the rest of your courses will also place high demand on you. Instead, be strategic and figure out when you will have time to go through this exercise.

Writing critical reflections is actually quite difficult and also a very specific skill. Need help? There will be a few documents placed on courselink with instructions and advice under the CONTENTS section.

Assignment 2: due BEFORE December 1, 2014 – Please upload to Course Dropbox

- 1) Is this Critical reflection on topic? /5
- 2) Describes root causes of assumptions and beliefs /5
- 3) Suggests how this experience can impact the future /5

Late Penalty on Assignments

The assignments will have a late penalty of 10% per day. Thus, assignments that are **TEN (10) DAYS** late will receive 0%.

Absence and Illness

If you are absent from classes during the semester, you will be expected to make up for missed lecture material on your own. If you do not complete assignments for medical or other authorized reasons, contact me asap to discuss.

Evaluation:

Assessment	Weight	Due Date	Course Content	Learning Outcome
Assignment 1	30 %	Nov. 13	Scientific method, niche concept, application of principles	1,2,3,5
Assignment 2	15%	Before Dec. 1	Critical reflection on course content and learning	1,4,6
Midterm	25%	Oct. 9	Part 1 of course	1,2,3
Exam	30%	TBD	All parts, of course	2,3,4

Important Dates:

September 4, 2014 – First day of class!
October 9, 2014 – Midterm during class time
October 30, 2014 – last day to drop this course
November 13, 2014 – Assignment 1 due before the end of class
Before December 1, 2014 – Assignment 2
TBD – Final exam

Departmental policies, resources, rules:

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic

Consideration: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.csd.uoguelph.ca/csd/>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the

University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

E-mail Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly. E-mail is the official route of communication between the University and its students.

Drop Date

The last date to drop one-semester courses, without academic penalty, is the 40th class day: October 30th, 2014. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs:

<http://www.uoguelph.ca/registrar/calendars/index.cfm?index>

Campus Resources

If you are concerned about any aspect of your academic program:

- make an appointment with a program counsellor in your degree program.
<http://www.bsc.uoguelph.ca/index.shtml> or <https://www.uoguelph.ca/uaic/programcounsellors>

If you are struggling to succeed academically:

- There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.uoguelph.ca/~ksomers/>

If you have a documented disability or think you may have a disability:

- The Centre for Students with Disabilities (CSD) can provide services and support for students with a documented learning or physical disability. They can also provide information about how to be tested for a learning disability. For more information, including how to register with the centre please see: <https://www.uoguelph.ca/csd/>