

ANTHROPOLOGY P380 (30444): PREHISTORIC DIET AND NUTRITION



Image from mural "Mujeres custodias de la naturaleza" by Mona Cayón and Raul Ayala of Quito, Ecuador

Tuesday and Thursday 4:55-6:10PM – School of Public Health (PH) C100 and online

Note: The first two weeks of class will be online only as I assess the feasibility of socially distant in-person gatherings, given varied student needs. The zoom link for class is [here](#) and the password as of 8/25 is "oldfood"

Professor Keitlyn Alcantara kalcant@iu.edu

AI Kirsten Hawley kmhawley@iu.edu

Office Hours: T/TH 1-3pm ([click to book](#))

Office Hours: M/T/TH/F ([click to book](#))

Email for additional hours

Se puede pedir horas de oficina en español

INTRODUCTION

Plants form the base of the food chain, yet within mainstream diets in the U.S., our food choices are many steps removed from the land. How did we get here, and how does it shape our bodies and society? In this course we will explore the relationship between humans and their food sources, starting from the evolution of the human diet and expanding to culturally-defined concepts of what is "edible" and "healthy", with examples from around the world. Traveling through deep time prehistory, you will learn to use the tools of **human evolutionary biology** (e.g. genetics, fossil anatomy and bone chemistry) and **prehistoric culture** (e.g. technology, archaeology, food remains) to reconstruct human foodways from the ancient past to present, and explore how food structures our sociopolitical, cultural, and biological worlds. Our semester will conclude with a critical analysis of contemporary issues of food security and sustainability, turning to indigenous models that draw from ancient ecological knowledge to create responsible and reciprocal relationships between humans and their environments.

This course asks:

How has cultural and biological adaptation shaped our diets?

How do human foodways rely on/depart from local ecologies? How does this impact our health?

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This course is intended to provide you with a clear understanding of the biological evolution of human diets, as well as the cultural influences on contemporary human foodways.

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COURSE VALUES AND EXPECTATIONS:

Practice flexibility: This is a unique moment to be engaging in group learning. As a course that will be meeting during the COVID pandemic, we are navigating quickly changing schedules, meeting contexts, and personal capacities. The syllabus presented on the first day of class is a loose guide, rather than a concrete schedule, and will adapt with whatever this semester brings. Updated syllabi can be found on CANVAS. Of you, I ask for *patience* as we figure out how best to structure the class to meet everyone's needs, *clear and timely communication* about what needs you may have (eg. assignment extensions, access needs, etc.), and *feedback* so that we can find a balance about what works best.

Be Present

Although parts of the course will be online, I ask that you respect your learning space and that of your classmates by removing distractions if possible (cell phones, open browser tabs, etc.). If there are barriers that limit your ability to be fully present (eg. a shared room, children, pets) please communicate this to the professor so that course materials can be designed for flexible access.

Use your own words and experiences

This course relies on the [IU Code of Student Rights, Responsibilities, & Conduct](#). No plagiarism, cheating, or copying are permitted (as defined [here](#)). You are responsible for understanding plagiarism and how to avoid it.

Late assignment policy

Extensions are readily available, but rely on you communicating the need to me or the AI beforehand. Any assignment turned in after the due date *without an extension request* will decline by a grade-rank PER DAY (A+ to A, A to A-, A- to B+, etc.).

Incomplete Policy

If you are falling behind at any point in the course, please talk with me about your situation as soon as possible. This is a particularly unique semester, and I will work closely with you to ensure that we reach your personal goals for the class. Students requesting an incomplete must provide a timetable for completion of the course requirements before the incomplete is approved.

Accessibility

Together we will work to construct a classroom that is welcoming, safe, mutually respectful, and which allows everyone to exist as their full selves. If you are uncomfortable attending class due to the behavior of another member of our community, please communicate with the instructor or the department about the issue.

If you have a disability that requires assistance and accommodation to participate fully, please let the instructor or IA know what additional support you need as soon as possible to ensure implementation of access needs. [The Disability Services Program](#) also

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provides a wide range of support services

COURSE OBJECTIVES AND ORGANIZATION

The goal of this course is to synthesize millennia of human and primate dietary and cultural change and adaptation to contextualize contemporary discussions of food sovereignty and health. To do this, the course is divided into 4 modules:

- Module I: **Tracing your own food history:** our bio-cultural heritage and nutrition
Module II: **Primate Foodways:** how the trees shaped us
Module III: **Hominid foodways:** reconstructing proto-human relationships to land
Module IV: **Food sovereignty and sustainability:** linking past and present

The grade scale is as follows:

A, 94-100	A-, 90-93
B+, 86-89	B, 83-85
B-, 80-82	C+, 76-79
C, 73-75	C-, 70-72
D, 65-69	F, below 65

COURSE EXPECTATIONS AND REQUIREMENTS

Participation (each class): This course is heavily based on your participation, as we all learn best when we are invested in learning as a community, and when you find ways to link learning to your own interests. Participation will be measured by your engagement in group work, attendance during class times, and contribution to in-class activities and class discussion. *Bring the readings with you to class, and be prepared to contribute to discussion either verbally or in written form.* Discussing issues raised in class with the Professor during their office hours is also a form of participation.

Reading Reflection (10): Each week will have 4 “reflection leaders” who are responsible for posing the week’s core reflections on Canvas. These reflections should engage deeply with the readings, and inspire points of conversation, rather than a summary. The remaining students are “discussants”, and must respond to one of the core reflections. Reflection leaders must post 24 hours before Tuesday’s class (**by 4 pm on Mondays**), and discussants must respond before the beginning of class (**by 4 pm on Thursday**). Aim for at least 3-4 sentences in length. Two free days are allowed per semester without impacting the grade.

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Quizzes (4): At the end of each module, there will be a quiz consisting of definitions and short answer responses. We will spend the Tuesday before the quiz studying together as a group. The aim of these quizzes is to establish the core important concepts for each module, and ensure that everyone is at the same level before we move on. These quizzes are in lieu of larger exams. If a quiz is not completed within the given period of availability, you must contact the professor to see if a makeup activity is possible.

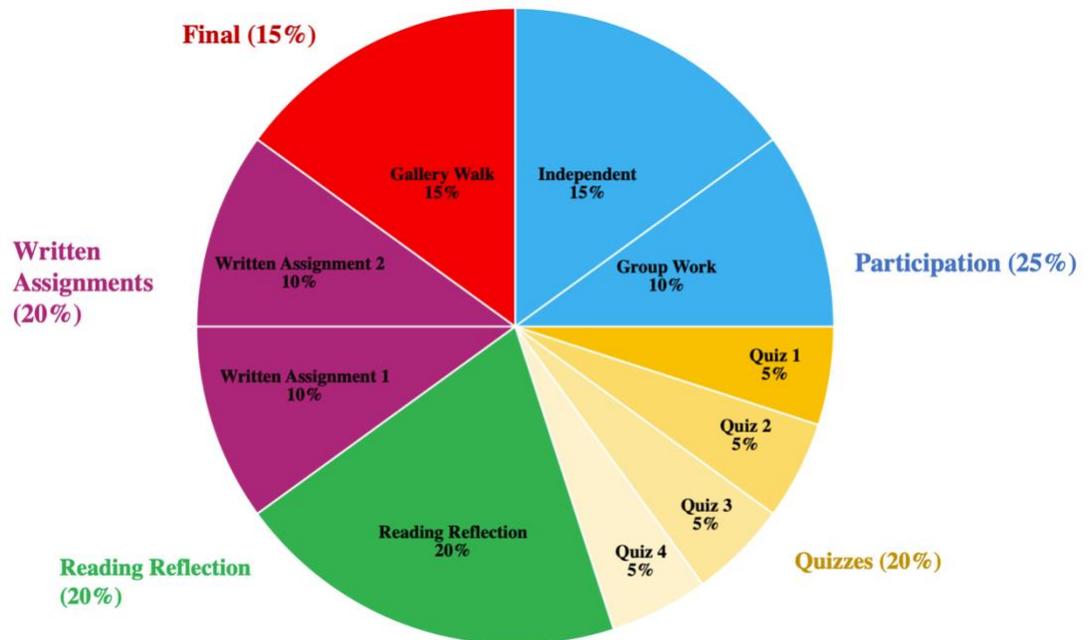
Written Assignments (2): Building off of concepts discussed in class, you will be asked to submit two 4-5 page written assignments during the semester. Due dates and topics TBD.

Gallery Walk (1): In lieu of a final exam, you will be asked to submit a piece to a virtual “gallery walk” that illustrates a concept in class that stood out to you. Your project can take the shape of a video clip/skit, tiktok, short story, poem, infographic (Canva is a great tool), poster, art project, etc. and will be shared with your classmates on our final day of class.

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GRADE COMPONENTS

- Participation: 25%
 - In-class participation: 15%
 - Group work: 10%
- Quizzes: 20%
 - Module 1 Quiz: 5%
 - Module 2 Quiz: 5%
 - Module 3 Quiz: 5%
 - Module 4 Quiz: 5%
- Reading Reflections: 20%
 - Must complete 8/10 reflections
 - For full points, must engage discussion, be 3 sentences in length.
- Written Assignments (2): 20%
 - Assignment 1: 10%
 - Assignment 2: 10%
- Final: Gallery Walk: 15%



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LEARNING OUTCOMES

During the first half of the course (Modules I & II) we will examine some of the biological and cultural factors that can influence human nutrition and food choice. Through readings, lectures and working together with other students, you will:

- Collect data on your own dietary patterns and learn to analyze its nutritional content and evaluate its health value, comparing human populations from different ecological contexts.
- Compare different primate species, including humans, to evaluate how they are adapted to their diets, in terms of their digestive strategies, sensory traits, anatomy, behavior and ecology.

In Module III we will review the prehistoric record for the diets of our ancestors. Broadly we will review interpretive debates about the evolution of human diet while also specifically learning about the application of different methods used to reconstruct diets. Through readings, lectures and working together with other students, you will:

- Evaluate the strengths and weaknesses of different types of evidence for ancient diet, and use these data to test dietary hypotheses.
- Analyze different patterns of food remains recovered from archaeological sites of different time periods to reconstruct socio-ecological differences in dietary adaptations.
- Learn how to interpret data from dietary isotopes.

Our final Module IV (Food Sovereignty and Sustainability) will critically analyze the ways prehistory can be used to inform contemporary discussions about food access, food sovereignty, and sustainable human-environment relationships.

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Course Schedule¹		
Key Texts:		
All reading/listening/watching materials can be found on CANVAS under Content → Readings. Always bring the readings with you to class.		
Date	Readings	Due
Module I: Tracing your own food history		
Wk 1 Where did our diets come from?		
Tuesday Aug. 25	- Course introduction and overview	READ: Syllabus ACTION: Book intro office hours
Thursday Aug. 27	- What is “prehistory” and how do we think about it?	READ: “Just Eat what your Grandma ate” “Were our grandparents really healthier than us?” “Family Recipes” ACTION: Book intro office hours
Wk 2 What historical factors have changed our diets?		
Tuesday Sept. 1	What is a “Western Diet”?	ACTION: Book intro office hours READ/WATCH: “Society’s health reflects changing Food Culture” “Dirty Pages” “Timeline: The Amazing multi-year history of processed food” HW: Where is the food in your kitchen coming from? Grocery store?
Thursday Sept. 3	- Biocultural and historical perspectives on modern diets	READ: “Unhappy Meals” ACTION: Book intro office hours (last day to book)
Wk 3 What do we mean when we say “prehistory”?		
Tuesday Sept. 8	- The Columbian exchange - Impacts of colonialism	READ: - Mariani Constantini 1992

¹Due to the uniquely unpredictable nature of our current COVID world, this syllabus will serve as a flexible guide, subject to change throughout the semester as needed. The most updated versions of the syllabus can always be found under “Syllabus” in CANVAS.

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	- How do we know what happened?	- Sioux Chef's Indigenous Kitchen - Decolonize your diet DUE: Reading Reflection 1 Discussion Leaders (DL) post questions by 4 pm
Thursday Sept. 10	- Guest Lecture: Kirsten Hawley o Case Study of Trade in Pre and Post-Colonial Caribbean	READ: "Decolonizing the Caribbean Diet" "What became of the Taíno" DUE: Reading Reflection 1 Discussants (Disc.) respond by 4pm
Wk 4 Key biological moments in "prehistory"		
Tuesday Sept. 15	- Generational trauma, health, and food as resilience -	DUE: DL Reading Reflection 2 (Leaders: Elijah Gibson, Anna Boucher, Addy Yater, Catharine Reed) READ: - Bodirsky and Johnson 2008 - Notes on Bodirsky and Johnson - " Trans-Atlantic Food Migration " LISTEN: Edible Activist Ep. 77 Optional: Food as Healing
Thursday Sept. 17 th	- Principles of Evolution? - Co-evolution of plants, animals and humans - Epidemics - The Agricultural revolution	DUE: Disc. Reading Reflection 2 READ: - Armelagos et al. 2005 Hand Out Writing Assignment Prompt (tips: use next week's quiz to help you think through how you shape your response)
Wk 5 Hunting and gathering – a thing of the past?		
Tuesday Sept. 22	- Hunting and gathering	Read: - Braiding Sweetgrass "Sitting in a Circle" NO READING REFLECTION, PREP FOR QUIZ Quiz opens after class
Thursday Sept. 24	- Foraging in our own yards	DUE: Quiz #1 OUTDOOR CLASS – meet at Sample Gates
Module II: Primate Foodways READINGS TBD FOR REST OF SYLLABUS		
Wk 6		

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Tuesday Sept. 29	<ul style="list-style-type: none"> - Introduction to Evolution - Primate Ecology 	<p>DUE: DL Reading Reflection 3 (Leaders: Max Snyder, Aaron Michalowski, Kristian Pechac, Rosalinda Rodriguez)</p> <p>DUE: Writing Assignment #1</p> <p>READ:</p> <ul style="list-style-type: none"> - "How Evolution Works" - Milton 1993 - Wasserman 2012 "Estrogenic Plant Foods" - Wasserman 2012 "Estrogenic plant consumption predicts..."
Thursday Oct. 1	<ul style="list-style-type: none"> - Guest Lecture: Dr. Michael Wasserman, Co-adaptation of Plants and Primates 	<p>DUE: DR Reflection 3</p>
Wk 7 Taste and Edibility		
Tuesday Oct. 6	<ul style="list-style-type: none"> - How do taste and evolution of human diet relate? 	<p>DUE: DL Reading Reflection 4 (Leaders: Randi Germany, Annaliese Marcum, Susanna Sharples-Gordon, Maddy White)</p> <p>READ:</p> <ul style="list-style-type: none"> - Hladik and Simmen 1996 - Sorokowska et al. 2017 - Breslin 2013 - Preston 2015
Thursday Oct. 8	<ul style="list-style-type: none"> - What role does culture play in food choice and taste? 	<p>DUE: DR Reflection 4</p>
Wk 8 Digestive Evolution		
Tuesday Oct. 13	<ul style="list-style-type: none"> - The coevolution of mind, body and belly 	<p>DUE: DL Reading Reflection 5 (Leaders: Audrey Bird, Ellie Harrison, Christopher Newlin, Emily Grieves)</p> <p>READ:</p> <ul style="list-style-type: none"> - Moeller et al 2014 - Leonard and Robertson 2007 - Catching Fire Ch. 2
Thursday Oct. 15	<ul style="list-style-type: none"> - Teeth: our best food tool 	<p>DUE: Disc. Reading Reflection 5</p>
Wk 9 WELL NESS WEEK		
Tuesday Oct. 20	-	NO READING REFLECTION, PREP FOR QUIZ

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		<p style="text-align: center;">Quiz opens after class</p> <p style="text-align: center;">To Read:</p> <ul style="list-style-type: none"> - De Palma et al. 2014 - Dominy 2015
Thursday Oct. 22	- Outdoor class	<p>OUTDOOR CLASS - meet at University Farm</p> <p>Quiz #2</p>
Module III: Proto humans		
Wk 10		
Tuesday Oct. 27	<ul style="list-style-type: none"> - Introduction to principles of Paleontology and Archaeology - Interpreting the fossil evidence for proto-human diet (comparative anatomy) 	<p>DUE: DL Reading Reflection 6 (Leaders: Charlie Cardello, Anna Boucher, Max Snyder, Miriam Fakoury)</p> <p>READ: Readings TBD</p>
Thursday Oct. 29	- Molecular evidence for ancient diets (dietary isotopes)	DUE: Disc. Reading Reflection 6
Wk 11		
Tuesday Nov. 3rd	- Ice Age foraging strategies	<p>DUE: DL Reading Reflection 7 (Leaders: Brian Howard, Elijah Gibson, Addy Yater, Rosalinda, Rodriguez)</p> <p>READ: Readings TBD</p>
Thursday Nov. 5th	<ul style="list-style-type: none"> - Case studies of stone age diet: integrating different kinds of evidence - IN-CLASS VOTING REFELCTION 	<p>DUE: Disc. Reading Reflection 7</p> <p>Hand Out Writing Assignment Prompt</p>
Wk 12		
Tuesday Nov. 10	- Foraging intensification in the stone age	<p>NO READING REFLECTION, PREP FOR QUIZ</p> <p>Quiz opens after class</p>
Thursday Nov. 12	- From foraging to farming - Transitions to agriculture in different parts of the world	DUE: QUIZ #3
Wk 13		
Tuesday Nov. 17	- The consequences of food production	<p>DUE: DL Reading Reflection 8 (Leaders: Catharine Reed, Aaron Michalowski, Susanna Sharples-Gordon, Kristian Pechac)</p>
Thursday Nov. 19	- Full Circle: How did we get here?	<p>DUE: Disc. Reading Reflection 8</p> <p>DUE: Writing Assignment #2</p>
NOVEMBER 22-29 THANKSGIVING BREAK		
Module IV: Food security and sustainability		
Wk 14		

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Tuesday Dec. 1st	Guest Speaker: Lauren McCallister, Plant Truck Project	DUE: DL Reading Reflection 9 (Leaders: Ellie Harrison, Randi Germany, Christopher Newlin)
Thursday Dec. 3rd		DUE: Disc. Reading Reflection 9
Wk 15		
Tuesday Dec. 8th	Guest Speaker: Dr. Jennifer Meta-Robinson	DUE: DL Reading Reflection 10 (Leaders: Audrey Bird, Annaliese Marcum, Maddy White)
Thursday Dec. 10th		DUE: Disc. Reading Reflection 10
Week 16 LAST WEEK OF ONLINE CLASSES		
Tuesday Dec. 15th	Gallery Walks	DUE: Gallery Walk
Thursday Dec. 17th	Gallery Walks	DUE: Gallery Walk
Wk 17: Final Exams Dec. 14-Dec. 18 DUE: QUIZ #4		