

Prelim-Evolution of the Human Diet

3 credits

Biological Sciences Building (BIO-315),
Douglass/Cook Campus

3.50-5.10pm Tuesday & Thursday

COURSE DESCRIPTION

Diet is one of the central occupations of human existence, and examining how this changed over time has implications for how we view contemporary questions on human diet and nutrition, how our hominin ancestors lived and evolved, and how, and under what conditions, mankind spread across the globe. The guidebook for this course, *Evolution of the Human Diet*, gathers together researchers from fields who share this: a desire to know

and understand the evolution and ecology of ourselves, our ancestors, and our primate relatives. Nutritional analysis and its bearing on evolutionary medicine, models of hominin diets based on extant primate diets, archaeological investigations of subsistence, and reconstructions of diets based on hominin fossils, shall be examined and discussed.

This course counts towards the Certificate in Evolutionary Medicine.

LEARNING GOALS

- ❖ Philosophical history of Palaeoanthropological and Archaeological research.
- ❖ Climatic and geographic constraints on hominin diet, sociality, and dispersal.
- ❖ Mode and tempo of human dispersal.
- ❖ The consequences and explanations behind increasing encephalization.
- ❖ Human history and life in the Pleistocene.
- ❖ Palaeolithic archaeology.

Instructor:

Hylke de Jong, office hours: by appointment
room BIO-204 B, Douglass/Cook Campus
hd189@anthropology.rutgers.edu

Readings

Required

Evolution of the Human Diet: The Known, the Unknown, and the Unknowable (2007): Peter S. Ungar (ed), Oxford University Press, Oxford, etc.

Additional materials will be made available on Canvas.

GRADING AND ASSESSMENT

Assessment

Grading will be based on participation in class discussion (20%), chapter and paper reviews (40%), a term paper (approx. 2000 words long, excluding references and captions) in the style of a grant proposal (30%) and a poster presentation (10%).

A note on absence in times of COVID-19

It is in everyone's best interests that if you have symptoms or feel ill in general, that you self-isolate and do not 'power' through to class. Alternative assignments will be made for people who could not attend the lesson. The main point is that classes can only be held in person if everyone takes sensible precautions. If the absence lasts longer than a week, please contact the Dean of Students:
<http://deanofstudents.rutgers.edu/>

Mask Requirement

Masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during class meetings; any student not wearing a mask will be asked to leave.

Masks should conform to CDC guidelines and should completely cover the nose and mouth:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the My Campus Pass symptom checker self-screening app.

Lecture Schedule by week

1. Introduction
2. Refresher Human Evolution and Chemical evolution of the Universe
3. Chapter 1 Early Hominin Diets: Overview and Historical Perspectives (Alan Walker)
4. Ch 2 Whose Diet? An Introduction to the Hominin Fossil Record (Amanda Henry and Bernard Wood) and Ch 3 The Evolution of the Hominin Diet from a Dental Functional Perspective (Lucas)
5. Ch 4 Dental Functional Morphology: The Known, the Unknown, and the Unknowable (Ungar) and Ch 5 What Do We Know and Not Know about Diet and Enamel Structure? (Teaford)
6. Ch 6 Mandibular Biomechanics and the Paleontological Evidence for the Evolution of Human Diet (Daegling and Grine) and Ch 7 What Do We Know and Not Know about Dental Microwear and Diet? (Teaford)
7. Ch 8 Icarus, Isotopes, and Australopithecus Diets (Sponheimer, Lee-Thorp and De Ruiter) and Ch 9 Reconstructing Early Hominin Diets: Evaluating Tooth Chemistry and Macronutrient Composition (Schoeninger)
8. Ch 10-12 The Archaeological Record
- 9. Spring Recess Mar 12-20**
10. Ch 13 Theoretical and Actualistic Ecobotanical Perspectives on Early Hominin Diets and Paleoecology (Peters) & Ch 14 African Pliocene Paleoecology: Hominin Habitats, Resources, and Diets (Reed and Lector)
11. Ch 15 Modeling the Significance of Paleoenvironment (Sept) and Ch 16 The Cooking Enigma (Wrangham)
12. Ch 17 Seasonality, Fallback Strategies, and Natural Selection: A Chimpanzee and Cercopithecoid Model for Interpreting the Evolution of Hominin Diet (Lambert) and Ch 18 Energetic Models of Human Nutritional Evolution (Leonard, Robertson, and Snodgrass)
13. Implications of Studies of Early Hominin Diets (Chapters 19-21)
14. *Presentations 26th & 28th April*

COURSE POLICIES

Academic Integrity

All students must strictly adhere to the Rutgers Academic Integrity Policy, which identifies and defines violations including cheating, fabrication, facilitating academic dishonesty, plagiarism, and denying others access to information or material. Full definitions of each of these violations, as well as the consequences of violating the Academic Integrity Policy, are available as part of the student handbook. For details see:

<http://academicintegrity.rutgers.edu/academic-integrity-policy>. You are responsible for knowing what constitutes plagiarism and academic dishonesty.

Student-Wellness Services:

FINANCIAL HARDSHIP

If you are facing other financial hardships, please visit the Office of Financial Aid at <https://financialaid.rutgers.edu/>.

Just In Case Web App

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/
www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 /
www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 /
<https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports

your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at:
<https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 /
<http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.