HOW THIS SYLLABUS IS ORGANIZED

The syllabus is meant to be a complete document and everything in the syllabus is important. The most important things come first. For example, please review the policy on academic integrity at http://ctaar.rutgers.edu/integrity/policy.html#Integrity. It is very important.

PROFESSOR:

Rob Scott
Office Hours: TBA, 210 Biological Sciences Building
Email: robertsc@rutgers.edu

BOX 1

Certificate Requirements Met by this Course
This course fills evolutionary approaches to diet / evolutionary physiology requirement of the Certificate in Evolutionary Medicine.

Major Requirements Met by this Course
This course fills the hominid paleontology requirement for the Evolutionary Anthropology major.

CATALOG DESCRIPTION
Diet as a basic component of the human lifeway. Exploration of its significance in human evolution; introduction to technical approaches to studying hominin diets; exploration of application of evolutionary approaches to studying diet-related illness.

PRE-REQUISITE: 070:102 or 070:105 or 704:110 or 704:251 or 090:274

MATERIALS
The book "Evolution of the Human Diet" edited by Peter S. Ungar is required. We will also use other resources available online and elsewhere. These will be available as needed on sakai.

SPECIFIC COURSE LEARNING GOALS
• Identify theoretical issues with respect to hominin and human diets.
• Identify key technical issues in dietary reconstruction.
• Achieve familiarity with current scientific literature on the evolution of hominin diets.
• Apply the evolutionary perspective to medical questions such as diabetes and obesity.
• Develop a proposal for significant research on an important question pertaining to hominin dietary evolution.
GRADING
Grading will be based on participation in class discussion (20%), reviews of papers (30%), paper summaries (10%), a class presentation (10%), and a term paper in the style of a grant proposal (30%).

REVIEW PAPERS, SUMMARIES AND CLASS DISCUSSION
Each class will begin with the sharing of reviews of a paper selected by one of your colleagues and announced at the end of the previous class meeting. These reviews should highlight strengths and weaknesses of the paper and will be in the style of reviews of a submitted manuscript.

The main part of each class will be discussion of papers from "Evolution of the Human Diet" and the selected, reviewed paper.

The class will end with a brief summary of the paper chosen for review in the next class. This summary will be in the style of a cover letter to a journal.

TERM PAPER AND CLASS PRESENTATION
The term paper and class presentation will be a prospectus for research on a question of relevance to human diet and evolution. The paper will be written in the style of a Leakey Foundation grant and the presentation will be a 12 minute powerpoint presentation followed by questions.

SCHEDULE & TOPIC LIST

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<tr>
<th>Week One</th>
<th>Overview and introduction</th>
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<td>Read Chapters 1 &amp; 2</td>
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<th>Week Two</th>
<th>Functional anatomy</th>
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<td>Read Chapters 3 &amp; 4</td>
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<th>Week Three</th>
<th>Enamel structure &amp; biomechanics</th>
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<th>Week Four</th>
<th>Chemistry, isotopes, &amp; microwear</th>
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<th>Week Five</th>
<th>Zooarchaeology, meat, stone tools</th>
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<th>Week Six</th>
<th>Modeling diets</th>
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<th>Week Seven</th>
<th>Paleocology and paleoenvironments</th>
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Week Eight
Seasonality to cooking
Read Chapters 16 & 17

Week Nine
Genes and diet
Perry et al, 2007 on amylase in humans
Narita et al, 2010 on pepsinogens in orang-utans
TBD

Week Ten
Evolutionary perspectives on diabetes
TBD

Week Eleven
Evolutionary perspectives on obesity
TBD

Week Twelve
Preliminary Presentation

Week Thirteen
Implications
Read Chapters 19 & 20

Week Fourteen
Final presentation & term paper due