COLORADO STATE UNIVERSITY  
Department of Health and Exercise Science  
Loren Cordain, Ph.D., Professor Emeritus

IU 193 – H01, FRESHMAN SEMINAR  
EVOLUTIONARY BASIS FOR OPTIMAL HUMAN NUTRITION  
COURSE SYLLABUS – (SPRING, 2009)

OVERVIEW: In the U.S., 2/3 of adults are overweight or obese. Sixteen percent of children and teenagers (12-19 yrs) are also overweight. There is little doubt that poor eating habits contribute to this nearly universal health problem. Nutrition related diseases such as cardiovascular disease, cancer, and diabetes account for 65% of all American deaths. By implementing healthful diets early in life, it is possible to reduce the risk for developing these illnesses and obesity. However, today there is considerable controversy regarding the constituents of a "healthful diet". You will learn how evolution through natural selection provides us an organizing template to determine the components of healthful diets. By mimicking dietary patterns of our Stone Age ancestors with everyday foods it is possible to construct healthful diets that reduce our risk of developing chronic disease and obesity.

COURSE DESCRIPTION: This course will present you with the evolutionary processes that shaped the human genome in regard to health, fitness and well-being, and show you how modern dietary patterns are discordant with those chosen for our species by natural selection. This genetic discordance increases the likelihood of nutritionally-related chronic disease and the development of obesity.

LEARNING OBJECTIVES: Upon completion of this course you will develop proficiency in the following objectives:

1. Develop an understanding of human origins and the environment that shaped the modern human genome.
2. Develop an understanding of natural selection and how evolution shaped our present day nutrition requirements
3. Apply the general principles of evolution and natural selection to the understanding of diet
4. Demonstrate knowledge of the dietary patterns of pre-agricultural humans.
5. Demonstrate knowledge of the discordance between past and present environments and how this discordance can result in ill health and obesity.
6. Demonstrate knowledge to remedy certain “diseases of civilization” via remedying genetic discordance between modern and past environments.
READING MATERIALS: Cordain L. The Paleo Diet. John Wiley & Sons, New York, 2002. Certain lectures will be supplemented by a reading assignment from relevant journal articles (see attached readings list).

GRADING:

1st Exam - 100 pts  
90% or greater = A

2nd Exam - 100 pts
80% to 89.4% = B

3rd Exam - 100 pts
70% to 79.4% = C
60% to 69.4% = D
Below 60% = F

LECTURE SCHEDULE:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READING ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/20</td>
<td>Introduction –</td>
<td></td>
</tr>
<tr>
<td>1/27</td>
<td>Diet, health and obesity,</td>
<td>Chapts 1-3 Readings</td>
</tr>
<tr>
<td>2/3</td>
<td>The evolutionary basis for optimal diets</td>
<td>Chapts 1-3 Readings</td>
</tr>
<tr>
<td>2/10</td>
<td>Ancestral human diets, the typical western diet</td>
<td>Chapts 1-3 Readings</td>
</tr>
<tr>
<td>2/17</td>
<td>Ancestral human diets, the typical western diet</td>
<td>Chapts 1-3 Readings</td>
</tr>
<tr>
<td>2/24</td>
<td>FIRST EXAM</td>
<td></td>
</tr>
<tr>
<td>3/3</td>
<td>Ancestral human diets, the typical western diet (health)</td>
<td>Chapts 4-6 Readings</td>
</tr>
<tr>
<td>3/10</td>
<td>Ancestral human diets, the typical western diet (health)</td>
<td>Chapts 4-6 Readings</td>
</tr>
<tr>
<td>3/24</td>
<td>Spring Recess – no class</td>
<td></td>
</tr>
<tr>
<td>3/31</td>
<td>Implementing a modern day Paleo Diet</td>
<td>Chapts 4-6 Readings</td>
</tr>
<tr>
<td>4/7</td>
<td>Implementing a modern day Paleo Diet</td>
<td>Chapts 4-6 Readings</td>
</tr>
<tr>
<td>4/14</td>
<td>SECOND EXAM</td>
<td></td>
</tr>
<tr>
<td>4/12</td>
<td>Implementing a modern day Paleo Diet</td>
<td>Chapts 7-12 Readings</td>
</tr>
</tbody>
</table>
4/21   Nutrient composition of Paleo Diets and health   Chapts 7-12 Readings
4/28   Nutrient composition of Paleo Diets and health   Chapts 7-12 Readings
5/5    Diet and acne national presentation   Chapts 7-12 Readings
5/12   THIRD EXAM – (11:20 am – 1:20 pm)

Reading List

All of the following articles are available as PDF downloads at www.thepaleodiet.com/research/


