Please be advised that if you do not obtain permission to register from the instructor prior to registering you will not be permitted to take this course. Requests for permission should be made by email and it is recommended that you make this request in advance of the registration period.

Prerequisite: Basic knowledge of biology and neuroscience recommended. Instructor permission required.

Explores the concept of inheritance and the mechanisms through which inheritance is mediated. Will focus on the generational transmission of physiology and behavior, but will also consider the inheritance of culture and language.


**Weekly Syllabus**

**Week 1 - Sept 11**

**Introduction & Overview**

**Week 2 – Sept 18**

**Historical Perspectives/Overview of Genetics**
Jablonka & Lamb Chapters 1 & 2


Johannsen W (1911) The genotype concept of heredity. The American Naturalist. 45: 129-159

**Week 3 – Sept 25**

**Behavior Genetics Journal Presentations**

Week 4 – Oct 2  Induced Variation in Genes
Jablonka & Lamb Chapter 3


Week 5 – Oct 9 Lamarckian Concepts of Inheritance
Chapter from Lamarck's Philosophie zoologique

Week 6 – Oct 16 Historical Perspectives/Overview of Epigenetics
Jablonka & Lamb Chapter 4

Epigenetics: The Science of Change

Week 7 – Oct 23 Epigenetics and Behavior Journal Presentations

Week 8 – Oct 30 MIDTERM EXAM

Week 9 – Nov 6 Behavioral Systems of Inheritance and Social Learning
Jablonka and Lamb Chapter 5


Week 10 – Nov 13 Social Learning Journal Presentations/Essay Presentations

Week 11 – Nov 20 The Inheritance of Learning and Culture/Essay Presentations
Jablonka and Lamb Chapter 6


Week 14 – Dec 4 Interaction of Inheritance Systems
Jablonka and Lamb Chapter 7


Week 15 – Dec 11  Evolving Concepts of Inheritance
Jablonka and Lamb Chapters 8-10


Course requirements

Each week, students will attend a two-hour seminar. Class time will be devoted to the presentation and discussion of book chapters and journal articles. The reading is intended to provide background knowledge on the relevant topics, to cover current research on those topics, and to serve as a stimulus for discussion. Students will also present journal articles relevant to specified topics within the course. Journal articles will be selected by the students with approval by the instructor.

The students take a written midterm exam with essay questions covering the material in the textbook, the papers and the class discussions. During the second half of the semester, the students write a term paper due on the last day of class. The 8-10 page paper should take the form of a critical review paper that addresses a specific question related to the topics of the seminar.

Grading is allocated as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm exam</td>
<td>20%</td>
</tr>
<tr>
<td>Term paper</td>
<td>30%</td>
</tr>
<tr>
<td>Participation and Presentations</td>
<td>50%</td>
</tr>
</tbody>
</table>

Important Dates :  
October 30, 2009  MIDTERM EXAM
December 4, 2009  ESSAY DUE DATE