

PBIO 691: Plant Biology Seminar
Syllabus
Fall Quarter 2007
Call #05362

Instructor: Dr. Stefan Gleissberg

Description:

We will use Ernst Mayr's book "This is biology - the science of the living world" as a base to reflect on our self-conception as practicing biologists. Topics include: historical approaches to biological problems, the relationship of biology to other natural sciences and humanities, the structure of the life sciences. Students will be required to extend their topic beyond the textbook, presenting case studies.

Topics:

- 1) Historical approaches to biological problems (Chapter 1)
Physicalists, Vitalists, Organicists
 - 2) Biology in the context of theology, philosophy, humanities, and society (Chapter 2)
 - 3) Scientific explanation (Chapter 3)
 - 4) Biological explanations (Chapter 4)
Proximate and ultimate causations
 - 5) Structure of the life sciences (Chapter 6)
Comparative and experimental methods
What, Why, and How questions
- The study of biodiversity (Chapter 7)
 - Questioning in developmental biology (Chapter 8)
 - Questioning in evolutionary biology (Chapter 9)
 - Questioning in ecology (Chapter 10)

Presentations

Each student will provide two presentations: one 20-minute presentation covering one of the main topics as outlined in the book (Chapters 1, 2, 3, 4, 6), and one subsequent 35-minute presentation of a case study of his/her choice, relating to Chapters 7, 8, 9, 10). Topics for the 20-minute presentation will be selected on a random lottery basis, topics of the 35-minute presentation according to area of specialty. The presentations should be polished, practiced, and well timed. Grades will be heavily based on peer critiques of all aspects of the presentation, augmented by critics of the instructor. Active participation in the discussion period following each presentation is an essential part and will also be graded. It is therefore necessary that each participant is familiar with the content of all relevant book chapters, and prepared to pose relevant questions and discussion contributions.

Grading:

90-92%, 93% and above A-, A
80-82%, 83-87%, 88-89% B-, B, B+
70-72%, 73-77%, 78-79% C-, C, C+
60-62%, 63-67%, 68-69% D-, D, D+
below 59 % F

Assessment:

40-minute presentation	50%
20-minute presentation	30%
participation in discussion	15%
attendance	5%
Total:	100%

Book:

Ernst Mayr: This is Biology. The science of the living world. Harvard University Press, Cambridge, Massachusetts 1998

Office Hours:

By appointment, Porter Hall Room 500
email: gleissbe@ohio.edu (preferred), or office phone: 593-2549

Absences:

Students are expected to attend all class sessions. Missed work may not be made up without adequate proof of legitimate absence as defined by Ohio University.

Academic Conduct and Class Etiquette:

University policy will be followed and violations will result in a lowered or failing grade.

Course calendar (subject to changes)

<i>Week</i>	<i>Date</i>	<i>Day</i>	<i>Topic</i>
1			NO CLASS
2	Sep 12	Wed	Organizational meeting
3			NO CLASS
4			NO CLASS
5	Oct 05	Fri	20-minute presentations
6	Oct 12	Fri	20-minute presentations
7	Oct 19	Fri	35-minute presentations
8	Oct 26	Fri	35-minute presentations
9	Nov 02	Fri	35-minute presentations