

**BIOLOGY 4490 – Arguments for Design**  
**Fall 2009**

Instructor: Scott Reese, Ph.D.	Lecture Room: SC 214
Office: SC 323	Lecture Time: M W 02:00-3:15 PM
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**TENTATIVE SCHEDULE<sup>1</sup>**

	<b>Date</b>	<b>Topic</b>
M	17 Aug.	Introduction & Epistemology
W	19 Aug.	Defining Science
M	24 Aug.	History of Science
W	26 Aug.	History of Science
M	31 Aug.	<b>Test 1</b>
W	02 Sept.	Evolution-A short course
M	07 Sept.	<b>Labor Day Weekend-No Class</b>
W	9 Sept.	Evolution-A short course
M	14 Sept.	<b>Test 2</b>
W	16 Sept.	History of Creation/ID
M	21 Sept.	History of Creation/ID- <b>Deadline for Group Selections</b>
W	23 Sept.	Video 1- <i>The Privileged Planet</i>
M	28 Sept.	Discussion of video 1
W	30 Sept.	Video 2- <i>Unlocking the Mysteries of Life</i>
M	05 Oct.	Discussion of video 2
W	07 Oct.	Video 3- <i>Icons of Evolution</i>
M	12 Oct.	Discussion of video 3
W	14 Oct.	Making a logical, scientific argument-A primer
M	19 Oct.	Presenting effectively
W	21 Oct.	Group 1 & 6 Discussions-Geological Evidence and a Global Flood
M	26 Oct.	Group 2 & 5 Discussions-Age of the Earth
W	28 Oct.	Group 3 & 4 Discussions-Abiogenesis
M	02 Nov.	Dr. Reese-Irreducible Complexity
W	04 Nov.	Dr. Reese-Complex Specified Information
M	9 Nov.	Group 4 & 2 Discussions-Evolution and chance/probabilities
W	11 Nov.	Group 5 & 1 Discussions-Evolution and Physical Laws (Newton)
M	16 Nov.	Group 6 & 3 Discussions- The Cambrian Explosion
W	18 Nov.	Dr Davis-Dinosaurs & gaps in the Fossil Record
M	23 Nov.	Dr. Reese-Human Evolution
W	25 Nov.	<b>NO CLASS-Fall Break</b>

M	30 Nov.	Science and Religion Panel
W	02 Dec.	<i>Journal Due</i>

<sup>1</sup> Please be aware that this schedule is tentative.

### **COURSE DESCRIPTION**

BIOL 4490. Arguments of Design. Prerequisite: BIOL 3300 or BIOL 3380. This course will explore the modern Intelligent Design movement. We will look at where the movement came from, its modern adherents, and the reasons for their current policies. The bulk of the course will be devoted to exploring the arguments that Design Theorists have presented and whether they survive the crucible of modern science. Topics will mostly focus on biological evolution; however the discussion will reach into chemistry, information theory, and maybe even astrophysics.

### **PREREQUISITE POLICY**

You are required to have a grade of 'C' or better in all prerequisite courses to be eligible for a course in the college of science and mathematics. The only exceptions are some general education courses and SCI 1101 or 1102. There will be a 1 semester grace period, but this policy will be strictly enforced in the spring semester.

### **COURSE PHILOSOPHY**

Arguments for Design is a look into the cultural conflict that is evolution and creation. We are going to explore the history of science leading to the eventual construction of the theory of evolution and its changes since Darwin's day. We will also look at the ideas and the promoters of creation science/intelligent design. The intention of this course is to discuss the nature of science and how the current cultural atmosphere in America has led to a misunderstanding of science and its uses. There is no 'controversy' in science about evolution, it is a theory and a fact at the same time and science has no trouble with that distinction.

It should be noted that dates and total points are subject to change if there are circumstances, deemed by me, to be extenuating. You will be given verbal notification of any changes in class and/or it will be posted under Announcements on the course web site (URL: <http://science.kennesaw.edu/~sreese3>) or on WebCT [Vista](#).

## COURSE OBJECTIVES

1. *Nature of Science*: Students will understand the epistemology that is science and how it relates to other ways of exploring the human world
  - a. **explain** science and
  - b. **defend** science, especially evolution, to those who question its efficacy.
2. *Presenting a scientific argument*: Students of science must be able to
  - a. **construct** a logical argument using scientific principles, and
  - b. **use** appropriate supporting documentation to
  - c. **justify and defend** that argument.
3. *Presentation skills*: Students will
  - a. **Identify** key elements of a good presentation and
  - b. **use** those elements to
  - c. **construct** a presentation on a particular position/argument
4. *Critical Analysis*: Biology students must be able to look at material with a critical eye. Thus, students will
  - a. **analyze** statements, websites, and literature sources,
  - b. **determine** their relative validity and
  - c. **critique** their relative weaknesses.
5. *Confidence in Science*: Students will
  - a. **discriminate** among the various epistemologies
  - b. **evaluate** their relative utility for given situations
  - c. **Revise** their positions and **change** their attitudes in light of new evidence.
  - d. **Defend** evolution as the best current science.

## COURSE POLICIES

Attendance/Participation: Class attendance and participation is expected and will be used in the grading scheme. If you miss a lecture, it is your responsibility to obtain lecture notes from a classmate; my notes will not be made available to students. There will be periodic online discussions moderated through [WebCT Vista](#). You are expected to be an **active participant in all of these discussions**. That means you will need to post a minimum of 2 substantive posts/discussion topic-see grading rubric for details. Participation is an important part of your grade for this course. Please arrive before the beginning of lecture so as not to disturb your fellow students. You are encouraged to ask questions during lecture. Mute all cell phones, pagers, etc.

Examinations and Grades: There are two examinations scheduled during the semester. Each exam will cover the material covered in the lectures and readings since the last exam. You must take all exams on the date offered unless you provide an excuse deemed by me to be satisfactory (e.g., make arrangements in advance, provide a note from a physician). If you miss an exam without an acceptable excuse, you will receive the grade of 0 (zero) for that exam. If you receive 50% or less of the points on the first exam, please talk to me. Such a score indicates that you are having trouble in this class and you may need to consider withdrawing.

Presentations/Class discussions: There are numerous presentations that are required for this course. The presentations will entail an in-depth look at a particular topic followed by a discussion on the topic and it is the responsibility of the assigned groups to lead the discussion. Grades for presentations will hinge on three sources. The first source will be the instructor and I get 75% of your presentation grade. The second 2 sources will be from your fellow students accounting for the other 25%. This portion will be split evenly between evaluations by other members of your group and other students that are not members of your group.

Journal: You are required to maintain a journal during this course that will be turned in for a grade. This journal will require a written entry for every class period and a course summarization at the end. See the learning module on WebCT for a more detailed look at the requirements.

Exam I	50 pts.
Exam II	50 pts.
Participation	100 pts.
Presentations	100 pts.
Journal	50 pts.
Total	350 pts.

Your grade for this course will be based on the following: A >312; B 312-278; C 277-243; D 242-208; F = < 208. **There is no "extra-credit."** The final grading scale may be adjusted at the discretion of the instructor and will be announced via WebCT.

Accommodations: Any student with a documented disability or medical condition needing academic accommodations of class-related activities or schedules must contact the instructor immediately. Written verification from the *KSU disAbleD Student Support Services* is required. No requirements exist that accommodations be made prior to completion of this approved University documentation. All discussions will remain confidential.

Academic Honesty: Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the University Judiciary Program, which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.

You are expected to follow the regulations as stated on pages 233-236 of the 2003-2004 of the Kennesaw State University Undergraduate Catalog. Plagiarism and cheating of any kind will not be tolerated. This includes copying papers and not providing proper literature citations. Any violations of the Student Conduct Regulations will be handled through the University Court.

## **ACADEMIC WITHDRAWAL POLICY**

Students may withdraw from one or more courses anytime before the last three weeks of the semester. ***However, as of Fall 2004, students will be allowed a maximum of eight total withdrawals if they enter KSU as a freshman. Transfer students will be allowed one withdrawal per fifteen credit hours attempted, for a maximum of eight.*** Students who choose to pursue a second degree at KSU will be allowed two additional withdrawals. Students who entered KSU before the Fall of 2004 will be allowed one withdrawal per fifteen credit hours attempted for a maximum of eight. To withdraw, the student should complete an official withdrawal form in the Office of the Registrar. Students who officially withdraw from courses on or before the last day to withdraw without academic penalty will receive a "W". Students who officially withdraw after the last day to withdraw without academic penalty (and before the last three weeks of the semester) will receive a "WF", which will be counted as an "F" in calculation of their grade point average.

The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances, which are fully documented. ***Students may appeal to the academic standing committee for consideration of unusual circumstances.***

## **LAST DATE TO WITHDRAW WITHOUT ACADEMIC PENALTY FALL 2009**

**OCTOBER 12, 2009**

Recycling Policy: **REDUCE WASTE AND RECYCLE.** If possible, please use (purchase) recycled goods. On campus, paper can be recycled in the bins found in the front of each classroom and aluminum cans can be recycled in the appropriate containers in the hall. Please do not mix waste with the materials to be recycled. It's your planet, your campus, your health & well-being and your economy -- help them all by recycling. See page 248 of the current catalog for the KSU Position Statement on Environmental Awareness.

URL: Copies of this syllabus, along with other material relevant to this course, can be found on the course Homepage. The URL for the course Homepage is:

<http://science.kennesaw.edu/~sreese3>

Most course materials will also be available via [WebCT Vista](#)

*Office Hours:* My office hours are listed on the first page of this syllabus. I encourage you to avail yourself of them. If you cannot make it to any of these scheduled hours, please make an appointment. I'm certain that we can find a mutually acceptable time to meet.

*Your continued presence in this course signifies your acceptance of the policies and procedures outlined above.*