Contact Information

Instructor: Dr. Timothy H. Heaton, Professor Emeritus of Earth Sciences
E-mail: Timothy.Heaton@usd.edu
After the course has started, use the E-mail facility within Desire 2 Learn (D2L)
Address: Department of Physics (Earth Sciences Program)
Akeley-Lawrence Science Center 201E
The University of South Dakota
Vermillion, SD 57069-2390
Cell phone: (435) 210-0154
Availability: Expect responses to e-mail messages within 24 hours unless otherwise announced.

Course Description

Catalog description: Geological, biological, and philosophical elements of the Evolution/Creation Debate and its impact on religion and society.

This course covers the scientific evidence for evolution and an ancient universe and the creationist arguments against these conclusions, and it explores the diverse varieties of creationism such as Young-earth Creationism, Intelligent Design, Progressive Creationism, and Theistic Evolution. It also covers the history of creationism including some of the prominent legal battles, and it explores the philosophical and religious issues that underlie the creation-evolution conflict and science and religion in general.

This is both a controversial and stimulating topic that frequently reaches the national media and is vigorously argued over the airwaves, on the Worldwide Web, and sometimes in the courtroom. Student views and experiences on this topic are greatly valued in this course and are open for respectful discussions throughout the semester. The subject material will also be explored through reading books written by scientists and creationists, exploring Web sites on the subject, and through worksheets, essay papers, and two exams.

Note: The evolution/creation debate frequently generates strong emotions. Students are expected to be open and critical in their thinking and analysis, but also to be respectful of the personal views of other class members and of believers in diverse perspectives. If you feel unable to explore diverse perspectives objectively or to be respectful of class members with different viewpoints, you should not take this course.

Required Books

The following six books are required readings for the course and will be used extensively. Students should obtain these books before the course begins on August 25th. All of them are inexpensive.


Instructional Methods and Assessments

This course is offered entirely online via Desire2Learn (http://d2l.sdbor.edu). Although it is an online class, it is not self-paced like some correspondence courses. The subject material is divided into 16 weeks, and the readings, discussions, and other assignments must be completed by specific deadlines. Therefore it is critical to follow the Class Schedule closely and to keep up on the material.

Readings

Each week there are assigned readings from the required books and sometimes from other sources that are either provided on D2L or accessible on the Web. For each week’s reading assignment there is a set of questions to be answered, some multiple choice and some essay, to aid in understanding some key points in the study. Credit will be given for completing and submitting these questions with an honest effort, but they will not be graded for specific content. A key containing answers and comments will be provided to each student after the student’s own answers are submitted.

Discussions

Discussion of topics covered in the readings helps students see things from different perspectives and to explore the claims and biases of the authors. Since this is an integral part of the course, credit is given for participation to make sure each student is contributing. An initial posting by each student is due midweek (worth two points), and at least three replies to other students’ postings are due by the end of the week (worth one point each). Additional participation in discussions is strongly encouraged. Postings should involve thoughtful analysis that will promote healthy discussion. No credit will be given for mere “I agree/disagree” type posts. Initial posts should include your analysis and reaction to some specific claim(s) or argument(s) by the authors and not be merely a general summary of the reading. Following these guidelines and submitting posts by the deadlines is required for full credit.

Essays and other Assignments

There is a short essay or other assignment due every few weeks. Instructions are provided as part of each new week’s materials in D2L. In most cases these essays and assignments will be posted for the class to see, and sometimes they will serve as topics for discussion or future assignments. A final research paper or essay is also required of each student on a topic of the student’s choice related to the course and approved by the instructor. The paper should investigate a topic in significantly more detail than it is covered in class. The final paper should be about 8-10 pages in length and include references (and illustrations if appropriate). Deadlines are set for selecting a topic and for a first and final draft. Upon completion these papers will be presented to the class for discussion. Grading of writing assignments will be based both on quality of content and on proper organization, grammar, and citation of references. World Wide Web sources are appropriate with the recognition that they may represent opinion rather than fact, so cite them but treat them critically.
Weekly Schedule
Weeks will run from Monday through Sunday with all assignments for the week due by Sunday at midnight Central Time. Assignments for the next week will be made available at least two days early (Saturday morning) for those wishing to stay ahead or to concentrate their work on the weekends. An initial post to the discussion board on the week’s reading or topic is due by Wednesday night, and all assignments and discussions for the week are due by Sunday night. No work for that week will be accepted after that deadline unless there are extenuating circumstances approved by the instructor.

Exams
A midterm and final exam are given to assess student learning on the factual aspects of the course. Exam questions are similar to those on the readings and are mostly essay questions that are designed to evaluate the depth of understanding of key issues. The exams are to be taken over D2L during the timeframe listed on the class schedule. Use of the required books and personal notes is permitted, but no help from any person is allowed.

Course Objectives
By taking this course students will be able to do the following:

1. List and describe the evidences that scientists cite in support of an ancient universe, the evolution of life, and other key conclusions relevant to the evolution/creation debate, and describe what factors make a good scientific theory (assessed by questions on readings, assignments, and exams).

2. Identify key participants and events in the history of American creationism; list the major branches of Christian creationism and their claims concerning the age of the earth, the origin of species, and the literalness of biblical stories; and describe their major projects, agendas, and outreach strategies (assessed by questions on readings, assignments, and exams).

3. Describe the fundamental problems of blending religion with science; identify the strengths and weaknesses of scientific and creationist proposals; and identify the premises and arguments that various religious and philosophical positions are based upon (assessed through discussions, essays, and some exam questions).

Grading
Weekly Assignments: Other Requirements:
Questions on readings 5 points Midterm exam 25 points A 90-100%
Discussion postings 5 points Final exam 25 points B 80-89%
Essays/other assignments 5 points Final Project 25 points C 70-79%
Total: ~250 points D 60-69%

Grades for quizzes, exams, assignments, and discussions will be posted on D2L within one week of the deadlines.

Class Schedule (subject to change – see weekly schedule under Content on D2L)

Week 1 (1/8-14) – Evolution Basics 1
Coyne Preface, Introduction, Chapters 1-3

Week 2 (1/15-21) – Evolution Basics 2
Coyne Chapters 4-6
Scientists Confront Creationism pp. 339-358
(Add/drop deadline 1/17)
Week 3 (1/22-28) – Evolution Basics 3
Coyne Chapters 7-9
Scientists Confront Creationism pp. 405-436

Week 4 (1/29 - 2/4) – History and Varieties of Creationism
Garner Forward and Introduction
Ross Forward, Introduction, Chapters 1-6, 12, 23
Dembski and McDowell pp. 44-45
Scientists Confront Creationism pp. 16-54

Week 5 (2/5-11) – Creationism and Cosmology
Garner Chapters 1-3
Ross Chapters 10, 13-15, 17-19
Scientists Confront Creationism pp. 142-148

Week 6 (2/12-18) – Creationism and Time
Garner Chapters 4-7
Ross Chapters 7-8, 16
Scientists Confront Creationism pp. 150-176

Week 7 (2/19-25) – The Origin of Life
Garner Chapter 8
Ross, Chapter 9
Dembski and McDowell Chapter 7
Scientists Confront Creationism pp. 180-194

Week 8 (2/26 - 3/4) – Intelligent Design
Dembski and McDowell Forward, Chapters 1-2
Scientists Confront Creationism pp. 59-142
Midterm Exam

Week 9 (3/5-11) – Spring Break (feel free to get ahead)

Week 9 (3/12-18) – The Fossil Record
Garner Chapter 14
Ross Chapter 11
Dembski and McDowell Chapter 3-4
Scientists Confront Creationism pp. 197-225

Week 10 (3/19-25) – Human Evolution
Garner Chapter 16
Ross Chapter 20-21
Scientists Confront Creationism pp. 272-302
Final Project topics due

Week 11 (3/26 - 4/1) – Philosophy of Science vs. Religion
Dembski and McDowell Chapter 5
Scientists Confront Creationism pp. 309-336, 361-402

Week 12 (4/2-8) – Design Inference and Irreducible complexity
Dembski and McDowell Chapter 6, 8
Scientists Confront Creationism pp. 231-270
(Withdrawal deadline 4/2)
Week 13 (4/9-15) – Fine-tuning of the Universe  
Dembski and McDowell Chapter 9  
Ross Chapter 14, 17, 18, Appendix A, B  
Scientists Confront Creationism pp. 144-146 (repeat)  
Final Project first drafts due

Week 14 (4/16-22) – Theistic Evolution 1  
Haught Introduction, Chapters 1-6

Week 15 (4/23-29) – Theistic Evolution 2  
Haught Chapters 7-11  
Final Projects due

Week 16 (4/30 - 5/4) – Conclusion  
Discussion of Final Projects  
Final Exam

Technology Requirements and Resources
The minimum technology requirements for participation in online courses offered by The University of South Dakota can be found under the “Technology Support and Requirements” section of the Online Orientation Guide (http://www.usd.edu/cde/upload/Online-Orientation-Guide.pdf). This document also outlines a wide variety of student support services such as the Information Technology Services (ITS) Help Desk, USD Libraries, Writing Center, bookstore, advising and enrollment information, financial aid, student life, counseling, etc.

Desire2Learn (D2L) is used to facilitate all aspects of the course. In D2L you can access course assignments and resources, communicate with your instructor and classmates through e-mail and discussions, participate in virtual office hours, take exams, and access your course progress and grades. D2L is accessed through the South Dakota Board of Regents Web site (http://d2l.sdbor.edu/).

Students must have access to Microsoft Word 2007 or later for composing their essays, as the instructor will use the comment and proofing features in Word to provide feedback within the essays themselves.

The USD Portal (http://myu.usd.edu/) is a one-stop place for a majority of services offered to any student taking a USD course, including e-mail, D2L, WebAdvisor, library services, etc. It can even be customized to suite your needs.

The University Writing Center (http://www.usd.edu/academics/academic-commons/writing-center.cfm) was established to provide writing assistance to students in order to help them develop writing skills. It is available on campus during regular business hours and online in the evenings. Please visit the URL above for more information.

Class Policies

Academic Dishonesty
The College of Arts and Sciences considers plagiarism, cheating, and other forms of academic dishonesty inimical to the objectives of higher education. Plagiarism is defined as using the words and/or ideas of another and representing them to be your own, without proper credit to the author or source. The College supports the imposition of penalties on students who engage in academic dishonesty, as defined in the “Conduct” section of the University of South Dakota Student Handbook.
No credit can be given for a dishonest assignment. At the discretion of the instructor, a student caught engaging in any form of academic dishonesty may be: A. Given a zero for that assignment, B. Allowed to rewrite and resubmit the assignment for credit, C. Assigned a reduced grade for the course, D. Dropped from the course, or E. Failed in the course.

Students are encouraged to discuss the readings and other course content and topics using the Discussion forums in D2L. However, students are required to compose their own answers and submit their own files in fulfillment of class requirements.

Students Rights to Assistance or Accommodations
Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester.

Ernetta L. Fox, Director of Disability Services, Service Center Room 119, 605-677-6389
Web Site: http://www.usd.edu/disabilityservices, E-mail: dservices@usd.edu

Freedom in Learning Statement
Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact Associate Dean Emily Haddad to initiate a review of the evaluation.

Communication and Equipment
Communication between student and instructor in this course is facilitated by E-mail and the Discussion forums in D2L. Only use regular Internet e-mail to contact the instructor if there is a problem with D2L. Students who lose the ability to communicate over the Internet due to technical problems must call and leave a phone message at the instructor’s office (605-677-6122) that describes the problem and estimates when course activity will resume. Students are also reminded that course work may be done on any computer with Internet access. If students experience extended problems with a home Internet connection or personal computer, they are expected to find alternatives and keep up with the course schedule.