



On-Campus Course Syllabus

SCI 205 L1

Physical Science

Spring 2024

Class Information

Day and Time: Th 4:45-7:15 PM

Room Number: E201

Contact Information

Instructor Name: Barry Dorociak

Instructor Email: bdorociak@Criswell.edu

Instructor Phone: (214) 543-8213

Instructor Office Hours: [Mon-Thurs 3-4 PM](#)

Course Description and Prerequisites

A survey of the structure and history of the universe focused on inanimate (non-living) forces of the physical world. This includes the principles of chemistry and physics and how these are applied within the sciences of astronomy (space science) and geology (earth science). The philosophy and history of science will be explored, as well as the interface between science and religion. (This course satisfies the requirements for a Natural Science course.)

Course Objectives

Upon completion of this course the student should be able to:

- A. Express and evaluate the major scientific theories and discoveries of modern science, demonstrating a working knowledge of inanimate physical forces and scientific terminology.
- B. Recognize and analyze the natural processes that scientists believe have shaped the heavens and the earth.
- C. Articulate rudimentary facts pertaining to scientific discussions of cosmic, geologic and biologic history as proposed by current accepted theories such as the Big Bang, the Nebular Hypothesis, Plate Tectonics and Evolution.
- D. Evaluate the viability of the different ways scientist and theologians have interacted, analyzing the strengths and weaknesses of the solutions they have proposed in the face of difficulties.

Required Textbooks

None

Recommended Reading

The Case for a Creator Author: Lee Strobel **Publisher** : Zondervan; First Edition (January 1, 2004) **Language** : English **Paperback** : 428 pages **ISBN-10** : 0310242096

Course Requirements and Assignments

Attendance and Participation Grade

Attendance and participation are expected as part of the classroom experience. You will begin the semester with a Participation Grade of 100 points. Consistent attendance and participation in class discussion will maintain the perfect score. Each unexcused absence will deduct 5 points from the total. I will allow you to check messages on your screens during class, but continuously looking at your screens during lecture will reduce your participation grade. The lectures are designed for visual learners. The images and video shown will reinforce what is being learned at the time. If you are looking at a laptop or a cell phone and not at the images, even if you are listening, you are not participating in the class. Beyond the basics of class participation, it is expected that you will participate in the discussion by sharing your knowledge and experiences, asking questions and volunteering answers when the professor asked questions in class.

Your Attendance and Participation Grade will determine 20% of your course grade.

Labs and Assignments

We will be doing hands on labs and assignments to reinforce the lectures. Participation is expected and your labs and assignments will be graded. You will work in small groups to complete these assignments and they will be done during class time. There will not be any make up labs or assignments so class attendance is very important. There will be an opportunity for extra credit if class is missed.

Your labs and assignments will determine 20% of your course grade

Exams

Five exams will be given during the course. One approximately every three to four weeks. Each will include multiple choice, true/false, and matching questions. These exams will be taken on Canvas. You will not be allowed to use any notes or outside computer access. There will not be a final exam.

Your exam grades will determine 40% of your course grade.

Paper

You will write a 3-5 page position paper summarizing and analyzing the strengths and weakness of the arguments offered by Lee Strobel in his book The Case for the Creator. Turabian format

Your grade on the position paper will determine 20% of your course grade.

Course/Classroom Policies and Information

Class Attendance

Students are responsible for enrolling in courses for which they (1) anticipate being able to attend every on-campus class session on the day and time appearing on course schedules, or (2) participating in academically related activities as identified in online-course schedules including synchronous class sessions conducted remotely by video, and then making every effort to do so. When unavoidable situations result in absence or tardiness, students are responsible for acquiring any missed information. Professors are not obliged to allow students to make up missed work. Per their independent discretion, individual professors may determine how attendance affects students' ability to meet course learning objectives and whether attendance affects course grades. Professors apprise students of such information in course syllabi.

Students receiving grants, loans, or scholarships must meet specified requirements of various departments at the college and should consult relevant sections of the *Academic Catalog*. To ensure such funds will not be forfeited, students are responsible for contacting the proper departments to ascertain any specific course participation requirements and consequences of not meeting such requirements. Students receiving grants, loans, or scholarships should consult the Financial Aid office.

While Criswell College is a non-attendance taking institution, it nevertheless must demonstrate that students begin their courses in order to comply with Federal Aid regulations. Accordingly, students must participate in academically related activities during census periods. Failure to meet this requirement will result in students being administratively dropped from courses.

Academically related activity is defined as any course-related activity that may be used as evidence of attendance. Examples include:

- physical presence in a classroom during a class session with the instructor present,
- participation in a synchronous remote video class session with the instructor present,
- submission of an academic assignment, quiz, or exam,
- participation in an interactive tutorial or computer-assisted instruction,
- participation in a study group or discussion board that is assigned by the instructor,
- documentation showing that the student and a faculty member corresponded about the academic subject of the course.

NOTE: Logging into a Canvas course alone and logging into a Synchronous Online class session without active participation or with the camera off are not considered attendance.

NOTE: A census period begins on the first day of a semester/term and runs through the end of the last day to drop courses. During the census period, attendance data is collected in order to demonstrate compliance with Federal Aid regulations. There is no census period for winter terms since there is no last day to drop courses.

Campus Closure

To ensure the health and safety of students and employees, college administrators may decide it is necessary on rare occasions to close the campus. Once this decision is announced, instructors will contact students to provide further details regarding the campus closure's impact on those courses. Students are responsible to watch for communication from their instructors and respond appropriately. (Unless otherwise specified by the instructor in this syllabus, this communication will be sent to the student's Criswell College e-mail account.)

In order to make progress toward the courses' objectives, instructors have the freedom during most campus closures to require students to participate in activities as alternatives to meeting on campus. An instructor may, for example, hold class remotely (through Zoom) at the scheduled time, provide a recording of a class or presentation for students to watch independently, or assign other activities that students are to accomplish before returning to campus. Students are responsible for accomplishing these alternative activities as well as any course requirements listed in this syllabus during the period of the campus closure. If, during the period of the campus closure, personal circumstances prohibit a student from accomplishing these alternative activities or course requirements and assignment listed in the syllabus during the campus closure, the student is responsible for communicating with the instructor as soon as possible. Instructors will not penalize students who do not have the means to accomplish the alternative activities during the period of the campus's closure and will work with students whose circumstances during the campus closure prohibited their timely completion of course requirements and assignments in the syllabus.

Grading Scale

Assigning grade definitions (i.e., above average, average, below average) is optional. Please delete the last column below if not assigning definitions. Additionally, delete these instructions when completing syllabus.

			Grade Definitions (optional)
A	93-100	4.0 grade points per semester hour	
A-	90-92	3.7 grade points per semester hour	
B+	87-89	3.3 grade points per semester hour	
B	83-86	3.0 grade points per semester hour	
B-	80-82	2.7 grade points per semester hour	
C+	77-79	2.3 grade points per semester hour	
C	73-76	2.0 grade points per semester hour	
C-	70-72	1.7 grade points per semester hour	
D+	67-69	1.3 grade points per semester hour	
D	63-66	1.0 grade point per semester hour	
D-	60-62	0.7 grade points per semester hour	
F	0-59	0.0 grade points per semester hour	

Incomplete Grades

Students requesting a grade of Incomplete (I) must understand that incomplete grades may be given only upon approval of the faculty member involved. An "I" may be assigned only when a student is currently passing a course and in situations involving extended illness, serious injury, death in the family, or employment or government reassignment, not student neglect.

Students are responsible for contacting their instructors prior to the end of the semester, plus filing the appropriate completed and approved academic request form with the Registrar's Office. The "I" must be removed (by completing the remaining course requirements) no later than 60 calendar days after the close of the term or semester in which the grade was awarded, or the "I" will become an "F."

Academic Honesty

Absolute truth is an essential belief and basis of behavior for those who believe in a God who cannot lie and forbids falsehood. Academic honesty is the application of the principle of truth in the classroom setting. Academic honesty includes the basic premise that all work submitted by students must be their own and any ideas derived or copied from elsewhere must be carefully documented.

Academic dishonesty includes, but is not limited to:

- cheating of any kind,
- submitting, without proper approval, work originally prepared by the student for another course,
- plagiarism, which is the submitting of work prepared by someone else as if it were his own, and
- failing to credit sources properly in written work.

Institutional Assessment

Material submitted by students in this course may be used for assessment of the college's academic programs. Since programmatic and institutional assessment is done without reference to specific students, the results of these assessments have no effect on a student's course grade or academic standing at the college. Before submitting a student's work for this type of assessment, the course instructor redacts the work to remove anything that identifies the student.

Institutional Email Policy

All official college email communications to students enrolled in this course will be sent exclusively to students' institutional email accounts. Students are expected to check their student email accounts regularly and to respond in an appropriate and timely manner to all communications from faculty and administrative departments.

Students are permitted to setup automatic forwarding of emails from their student email accounts to one or more personal email accounts. The student is responsible to setup and maintain email forwarding without assistance from college staff. If a student chooses to use this forwarding option, he/she will continue to be responsible for responding appropriately to all communications from faculty and administrative departments of the college. Criswell College bears no responsibility for the use of emails that have been forwarded from student email accounts to other email accounts.

Disabilities

Criswell College recognizes and supports the standards set forth in Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and similar state laws, which are designed to eliminate discrimination against qualified individuals with disabilities. Criswell College is committed to making reasonable accommodations for qualifying students, faculty, and employees with disabilities as required by applicable laws. For more information, please contact the Student Services Office.

Intellectual Property Rights

Unless otherwise specifically instructed in writing by the instructor, students must neither materially nor digitally reproduce materials from any course offered by Criswell College for or with the significant possibility of distribution.

Research and Writing Standards

The default writing style for written assignments in Criswell College Courses is the latest edition of *A Manual for Writers of Research Papers, Theses and Dissertations* by Kate Turabian. However, instructors are free to require alternative writing styles in their courses. These styles include but are not limited to the American Psychological Association (APA), Chicago Manual of Style, Modern Language Association (MLA), and Society of Biblical Literature (SBL) writing guides.

Resources and Supports

Canvas and SONIS: Criswell College uses Canvas as its web-based learning tool and SONIS for student data. Students needing assistance with Canvas should contact the Canvas Help Support line at (844) 358-6140. Tech support is available at this number, twenty-four hours a day. Students needing help with SONIS should contact the Campus Software Manager at studenttechsupport@criswell.edu.

Student Services: The Student Services Office exists to foster and encourage success in all areas of life—physical, intellectual, spiritual, social, and emotional. Students are encouraged to reach out for assistance by contacting the office at 214.818.1332 or studentservices@criswell.edu. The Student Services Office also works with local counseling centers to ensure that every student has access to helpful mental health resources. More information is located on the college website at [Criswell College Mental Health Resources](#), and students may contact the Director of Student Services if they have any questions.

Wallace Library: Students can access academic resources and obtain research assistance by contacting or visiting the Wallace Library, which is located on campus. For more information, email the Wallace Library at library@criswell.edu. Login credentials are emailed to students near the beginning of the semester.

Tutoring Center: Students are encouraged to consult with tutors to improve and enhance their skills and confidence in any subject matter taught at the college. Tutors have been recommended by the faculty to ensure that the tutor(s) are qualified to serve the student body. Every tutor brings experience and expertise in an effort to provide the proper resources for the subject matter at hand. To consult with a tutor, students can schedule an appointment through Calendly (<https://calendly.com/criswell-tutoringcenter>) or by visiting the Tutoring Center located on the second floor in room E203. For questions, call 214.818.1373 or email at tutoringcenter@criswell.edu.

Course Outline/Calendar

Week 1 Week of Jan 18 Geology

Introductions and Syllabus

Notes--Matter and Periodic Table

Periodic Table Activity

Notes—Minerals

Mineral Lab

The Case for the Creator—Chapter 1 White-Coated Scientists Versus Black-Robed Preachers

Devotion 1 Gen 1:1, 31 Col 1:15-23

Week 2-3 Week of Jan 25, Feb 1 Geology

Notes—Rocks

Igneous Rock Lab

Sedimentary Rock Lab

Metamorphic Rock Lab

The Case for the Creator—Chapter 8 The Evidence of Biochemistry

Devotion 2 Psalm 18

Week 4 Week of Feb 8 Geology

Exam 1 Matter, Minerals, and Rocks

Notes—Volcanoes

Lab—Topographic Maps

The Case for the Creator—Chapter 2 Images of Evolution

Devotion 3 Matthew 7:24-27

Week 5 Week of Feb 15 Geology

Notes—Earthquakes and Earth's Interior

Lab—Earthquakes and Earth's Interior

The Case for the Creator—Chapter 2 Images of Evolution

Devotion 4 Psalm 46

Week 6 Week of Feb 22 Geology

Notes—Plate Tectonics

Plate Tectonic Lab

The Case for the Creator—Chapter 3 Doubts about Darwinism

Devotion 5 Psalm 90:2, Rom 1:20

Week 7 Week of Feb 29

Exam 2 Volcanoes, Earthquakes, Earth's interior, Plate Tectonics

Notes—Geologic Time Part 1

Lab—Geologic Time Part 1

The Case for the Creator—Chapter 9 The Evidence of Biological Information: The Challenge of DNA and the Origin of Life

Week 8 Week of March 7 Oceanography

Notes—Geologic Time Part 2

Lab—Geologic Time Part 2

Notes—Oceans and Shorelines

Lab—Oceans and Shorelines

The Case for the Creator—Chapter 10 The Evidence of Consciousness: The Enigma of the Mind
Drop Date is March 21

Week 9 Week of March 21 Hydrology

Notes—Running Water/Ground Water

Lab—Running Water/Ground Water

The Case for the Creator—Chapter 6 The Evidence of Physics: The Cosmos on a Razor's Edge

Week 10 Week of March 28 Hydrology

Notes—Glaciers and Deserts

Lab—Glaciers and Deserts

The Case for the Creator—Position Paper Outline Due

Week 11 Week of April 4 Meteorology

Exam 3 Geologic Time/Oceans/Landscapes/Glaciers/Deserts

Notes—Atmosphere

Week 12 Week of April 11 Meteorology

Notes—Weather

Lab--Weather

Week 13 Week of April 18

Exam 4 The Atmosphere and Weather

Notes—Astronomy

The Case for the Creator—Chapter 7 The Evidence of Astronomy: the Privileged Planet

Week 14 Week of April 25

Notes—The Solar System

The Case for the Creator—Chapter 5 The Evidence of Cosmology Beginning with a Bang

Week 15 Week of May 2

Notes—Beyond the Solar System

The Case for the Creator—Chapter 11 The Cumulative Case for a Creator

Position Paper The Case for the Creator Due

Week 16 Week of May 9

Exam 5 Astronomy, the Solar System, and Beyond the Solar System

Extra Credit Projects

(Points in place of missing lab or assignment)

DALLAS

Perot Museum of Natural History 5pts

Dallas World Aquarium 5pts

Dallas Arboretum 5pts

The Rock Barrel Rock Shop 5pts

FORT WORTH ARTS DISTRICT

Japanese Garden 5pts

Museum of History and Science 5pts

Dallas Zoo or Ft. Worth Zoo 5pts

Caldwell Zoo (Tyler)