

BILD87 (Freshman Seminar) Philosophy of Science

The philosophy of Science and the Science of the Supernatural

(1 unit/2 hrs per week)

Tuesday, 1:00 PM-1:50 PM; Room 3880 AP&M Building

Description: This seminar class will discuss the basics for the scientific method and follow some of the most significant discoveries. It will also evaluate the scientific basics for beliefs in supernatural entities. Rationalism and Humanism will be considered in relationship to religious belief systems.

Official website: <https://bild87philosophyofscience.wordpress.com/>

Contact information:

Prof. Milton Saier

Department of Molecular Biology

School of Biological Sciences

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John Muir College, UCSD

Phone: 858-534-4084

Times available: Afternoons and early evenings

Office hours: Immediately following class, by appointment or

Professor Steve Baird

Department of Medicine UCSD

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Topics to be discussed:

- (1) Introduction and Overview.
- (2) Rationalism and Humanism.
- (3) The Creation Story in the Bible and its Sumerian, Babylonian, and Egyptian antecedents. This will introduce myths as a human tradition to explain the unknown.
- (4) The Ptolemaic Universe with the Earth at the Center and the Sun, Planets and Stars Revolving around it Early attempt at a model based on observations.
- (5) Aquinas' proof of the existence of God, how to explain the supernatural.
- (6) Copernicus and Galileo and the Heliocentric Solar System. The reaction to the Inquisition. Faith vs. Observation and Reason.
- (7) Kepler's analysis of the data of Tycho Brahe. The Introduction of the idea of elliptical orbits of planets to explain the data better than Ptolemy did.
- (8) Darwin and Evolution. A non-biblical explanation of the origin of species, including humans.
- (9) Koch's Postulates for infectious diseases. Microbiology. Microscopes and culture methodology. Disease is due to bugs not devils. Jenner and vaccines to prevent diseases.
- (10) Mental Illness: possession by demons or cellular malfunction?
- (11) Definition of the scientific method and definition of faith. The current state of antiscientific emotion in the faith community and growing atheism in the scientific community.

Additional Topics to consider:

- (1) The Scientific Method (The Empirical Approach)
- (2) The Natural World: From Atoms to Universe
- (3) Darwin, Evolution and The Third Law of Biology
- (4) The Psychological Basis for a Belief in the Hereafter
- (5) World Mythology: Themes and Variations
- (6) The Dark Bible and Its Implications
- (7) The Biological Basis for Belief Systems
- (8) Richard Dawkins and “The God Delusion”
- (9) Science: the record of dead religions (Oscar Wilde)
- (10) Rationalism

Grading policy:

- There will be no exams or quizzes. Active participation is **STRONGLY** encouraged.
- Grading will be based on attendance and participation, additionally:
 - (1) Each student will write a letter to one or more newspaper(s) or a letter to one or more politician(s) (less than 200 words) about some issue of interest and importance to her/him, read it to the class, and submit it signed to Dr. Saier (by E-mail or hard copy with your name) as well as to one or more newspaper(s) for publication, or one or more politicians.
 - (2) Each student will present a short talk (~10 mins, with slides if preferred) on an issue of the student’s choosing. You can do this with another student or alone, depending on your preference. The range of topics is almost unlimited, but many such topics are listed above.
 - (3) All students who are eligible to vote in the U.S. should have registered to vote. It is the responsibility of every citizen in a democratic country to become informed and vote. Only then can we hope to inspire the maintenance of a democratic way of life.

Suggested California newspapers for submission (with email addresses):

UCSD Guardian	opinion@ucsdguardian.org [Must identify as UCSD student]
Coast News	editor@coastnewsgroup.com jordan@coastnewsgroup.com
San Diego Union-Tribune	letters@uniontrib.com
Los Angeles Times	letters@latimes.com
San Francisco Chronicle	opinion@sfnchronicle.com

Note: Submissions must include full name, status (e.g., freshman student at UCSD), full address, telephone number and e-mail address. They may contact you to verify your identity. Any other newspapers that you may prefer are equally acceptable.

Suggested California politicians to contact:

Senator Toni G. Atkins

Senator Alex Padilla

Etc., etc., depending on your district.

The link is <https://www.senate.gov/senators/senators-contact.htm>. If you select your state, you get a list of your specific elected senators. You can find an elected officials in the link <https://www.usa.gov/elected-officials>. These websites will let you type in a message to the officials you select. Unfortunately, there is no obvious way to send to a bunch of officials all at once, but that may be okay because it has been noted that politicians often ignore emails that were sent to a bunch of people all at once. If the email is addressed just to them they are more likely to read it. Also, if the email greets them by name (i.e., Dear Senator Atkins), they are more likely to read it.