

## **PSY 400: Science and Superstition, 4 Credits, Fall 2011**

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Class Time: Tues/Thurs, 10:00-11:47pm  
Classroom: 316 PH

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### **Course Description**

This course provides an overview of the methods and products of science as contrasted with superstition and supernaturalism. The focus of the course is on differentiating critical thinking and scientific, evidence-based beliefs and practices, from beliefs and practices that are not evidence-based and do not depend on critical thinking, such as tarot card readings, palm readings, astrology, and supernaturalism.

**Course Prerequisites:** 2.0 or better in PSY 250

### **Required Text(s) and Supporting Course Material:**

1. Sagan, Carl. (1997). *The demon-haunted world: Science as a candle in the dark*. New York: Ballantine Books [paperback, ISBN: 978-0-345-40946-1]
2. Dawkins, Richard (2006). *The god delusion*. New York: Mariner Books [paperback, ISBN: 978-0-618-91824-9]

**Course Procedures:** *lectures, discussions, videos, reaction papers, group presentation*

**Cross-Cutting Capacities:** effective communication, critical thinking

**Course Objectives** (derived from American Psychological Association guidelines):

1. Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.
2. Understand and apply psychological principles to personal, social, and organizational issues.
3. Value empirical evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a science.
4. Communicate effectively in a variety of formats.
5. Differentiate critical thinking and scientific, evidence-based beliefs and practices, from beliefs and practices that are not evidence-based and do not depend on critical thinking, such as tarot card readings, palm readings, astrology, and supernaturalism.

### **Expectations**

Students are expected to conduct themselves in a manner conducive to an environment of academic integrity and respect for the educational process and the safety and wellbeing of all members of the community. Adherence to the Student Code of Conduct will be expected; violations of this code will be reported to the Dean of Students. The Code of Academic and Student Conduct can be found at <http://www2.oakland.edu/deanofstudents/handbook/conduct.cfm>. I reserve the right to limit this course's survey of alternative perspectives to those that, in my professional judgment, meet generally accepted standards of plausibility in the field of scholarship covered in this course. Students are expected to show mastery of these perspectives in their spoken and written contributions.

**Add/Drops & Incompletes:** The University add/drop and incomplete grade policies will be explicitly followed. It is the student's responsibility to be aware of the University deadline dates for dropping the course.

**Make-up Examinations:** No make-up coursework is permitted.

**Special Considerations:** Students with disabilities who may require special considerations should make an appointment with campus Disability Support Services. Students should also bring their needs to the attention of the instructor as soon as possible.

### **Grade Determination**

**Grades in this course will be based on evaluations of the following materials:**

#### ***Group Presentation***

Groups of 4-5 students will lead a review and discussion of material presented in each of the weekly assigned readings. Grades will be assigned on the basis of completeness and accuracy of material presented. The instructors will consult with each group to facilitate complete and accurate presentations. Each student will lead TWO group discussions, worth 50 points each. This assignment is worth 100 points out of the total 400 points in the course (25% of your grade).

#### ***Weekly Discussion Questions***

Students are expected to read the assigned material before arriving to class on the day the material is to be discussed. Students will hand in at the end of each class 4-5 typed discussion questions about the reading assigned for that class. These questions must be prepared prior to arriving to class. Grades will be assigned on the basis of the degree to which the questions reflect a careful and thoughtful reading of the assigned material. This assignment is worth 100 points out of the total 400 points in the course (25% of your grade).

#### ***Brief Reaction Papers***

Students will complete and turn in a brief (2 pages, typed and double-spaced) reaction paper at the beginning of several class sessions. These reactions papers will address the reading or discussion of the previous class session. The specific assignment of each reaction paper will be discussed in class. Grades will be assigned on the basis of the degree to which the reaction papers reflect thoughtful consideration of the issues presented in the reading or discussion. This assignment is worth 100 points out of the total 400 points in the course (25% of your grade).

#### ***Comprehensive Exam***

There will be one comprehensive exam, administered in class on the scheduled final exam date. The exam will consist of short essay questions. Grades will be assigned on the basis of the degree to which the answers reflect a complete and accurate response to the question. This assignment is worth 100 points out of the total 400 points in the course (25% of your grade).

#### ***Grading***

Grades will be assigned as follows:

Group presentation	100 points (25% of your grade)
Weekly discussion questions	100 points (25% of your grade)
Brief reaction papers	100 points (25% of your grade)
Comprehensive exam	100 points (25% of your grade)

**Grade Calculation:** Your final grade will be calculated as the number of points you earn across the four assignments out of the total available 400 points. The number of points earned out of 400 will be converted to a percentage. Grades will then be assigned according to the following scale:

#### ***Grading Scale:***

95% and above = 4.0, 90% - 94% = 3.6 - 3.9, 80% - 89% = 3.0 - 3.5, 70% - 79% = 2.0 - 2.9, 60% - 69% = 1.0 - 1.9, 59% and below = 0.0

**Detailed Class Schedule and Topical Outline**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>
Jan 5	Intro. to course, group discussion sign-up	None
Jan 10	Science as a candle in the dark, part 1 Topic: Science and hope	Sagan: Preface, Ch. 1-2
Jan 12	Science as a candle in the dark, part 2 Topic: Man in the moon; aliens	Sagan: Ch. 3-4
Jan 17	Science as a candle in the dark, part 3 Topic: Spoofing, secrecy; hallucinations	Sagan: Ch. 5-6
Jan 19	Science as a candle in the dark, part 4 Topic: Demon-haunted world; true vs. false visions	Sagan: Ch. 7-8
Jan 24	Science as a candle in the dark, part 5 Topic: Therapy; dragon in my garage	Sagan: Ch. 9-10
Jan 26	Guest lecturer, topic TBA	TBA
Jan 31	Science as a candle in the dark, part 6 Topic: City of grief; baloney detection	Sagan: Ch. 11-12
Feb 2	Science as a candle in the dark, part 7 Topic: Obsessed with reality; antiscience	Sagan: Ch. 13-14
Feb 7	Science as a candle in the dark, part 8 Topic: Newton's sleep; wen scientists know sin	Sagan: Ch. 15-16
Feb 9	Science as a candle in the dark, part 9 Topic: Skepticism, wonder; the wind makes dust	Sagan: Ch. 17-18
Feb 14	Science as a candle in the dark, part 10 Topic: No such thing as a dumb question; house on fire	Sagan: Ch. 19-20
Feb 16	Science as a candle in the dark, part 11 Topic: Path to freedom; significance junkies	Sagan: Ch. 21-22
Feb 21	No class (winter recess)	None
Feb 23	No class (winter recess)	None
Feb 28	Science as a candle in the dark, part 12 Topic: Maxwell and the nerds; science and witchcraft	Sagan: Ch. 23-24
March 1	Science as a candle in the dark, part 13 Topic: Real patriots ask questions	Sagan: Ch. 25
March 6	The god delusion, part 1 Topic: Deeply religious non-believer	Dawkins: Preface (p. 23), Ch. 1
March 8	The god delusion, part 2 Topic: The god hypothesis	Dawkins: Ch. 2

March 13	The god delusion, part 3 Topic: Arguments for god's existence	Dawkins: Ch. 3
March 15	No class, Dr. Robert Kurzban visits Oakland	None
March 20	The god delusion, part 4 Topic: Why there almost certainly is no god	Dawkins: Ch. 4
March 22	The god delusion, part 5 Topic: The roots of religion	Dawkins: Ch. 5
March 27	The god delusion, part 6 Topic: The roots of morality	Dawkins: Ch. 6
March 29	The god delusion, part 7 Topic: The "good" book and the changing moral <i>zeitgeist</i>	Dawkins: Ch. 7
April 3	The god delusion, part 8 Topic: What's wrong with religion?	Dawkins: Ch. 8
April 5	The god delusion, part 9 Topic: Childhood, abuse, and escape from religion	Dawkins: Ch. 9
April 10	The god delusion, part 10 Topic: A much needed gap?	Dawkins: Ch. 10, Preface to paperback
April 12	The relationship between science and religion I	Articles to be provided
April 17	The relationship between science and religion II	Articles to be provided
April 19	<b>Final exam, 8:00-11:00am</b>	None