I. COURSE DESCRIPTION
This critical thinking course interprets extraordinary claims of using reason, logic, and skeptical analysis in drawing conclusions. Fringe science, pseudoscientific, and bogus health claims will be evaluated based on available evidence. Health claims, fortune-telling (astrology, psychic predictions, palm reading), alternative medicine, sensory illusions such as magic, faith healing, clairvoyance, telepathy, the lunar effect, and psycho-kinesis will be some of the topics likely covered. The role of the media in covering and reporting such claims will be explored. The course will focus on drawing plausible and logical conclusions based on evaluation of existing evidence.

II. COURSE OBJECTIVES
a. have a basic knowledge of critical thinking, skeptical thought, and the scientific method.

b. discriminate between sound vs. faulty logic in descriptions and observations of pseudoscientific claims.

c. demonstrate how to conduct research and/or investigate anomalous phenomena via a positive working relationship with a team of students.

d. evaluate skeptical knowledge of unexplained phenomena, its claim(s), or a central skeptical figure.

III. PROCEDURES FOR ACHIEVING COURSE OBJECTIVES
Weekly Quizzes
Over the book(s) required for the class.

Participation/Discussion
A central key to this class is active and quality participation. If you plan on being “passive” in this class, strongly consider dropping out now since this would make it difficult to make a good grade. Your professor is not a traditional “lecturer,” but rather a
facilitator of learning, so you will generate a great portion of the movement in this course. Active participation involves frequency and continuity of discussion (without being verbally dominating, such as the habit of chronically being first to talk) while quality participation includes communication demeanor (tone, abrasiveness, open-mindedness, respect, etc.). If you are extremely “pro-paranormal” or extremely “anti-paranormal” in belief, you may find it difficult to enjoy the class or make a high mark on this grading criterion. Being non-presumptive and “open-minded” is necessary not only to enjoy the class, but also to make a high course grade (part of the participation and discussion grade).

You will periodically experience random assignments not specifically listed in this syllabus. For instance, you may be assigned to read an article which might be discussed the following week. You might be asked to lead a discussion over an article we all read. Your Discussion/Participation grade will likely be elevated if it is clear to me in our discussion that you read and understood the article (and vice-versa). You also may be tested on the material.

\{NOTE: regular attendance is necessary because it is assumed that if you are not in class, then you cannot participate. Missing a single class is equivalent to missing more than three fifty-minute classes, or a standard week. Of course illness, dangerous weather, and emergencies are considered extenuating circumstances and, if not habitual, will not affect grading. And the number of scheduled class meetings are few. Therefore, each absence will result in a 10% deduction from the final course grade\}

**Project & Presentation (formal research)**

Each student (possibly teams, depending on class size) will select an approved topic and conduct a skeptical research experiment, investigate, or present subject matter to class. There are basically four options:

1. Conduct the research *in class* (if it does not run the risk of contaminating the results), but be prepared with a back-up plan if a key participant doesn’t show up.
2. Conduct the skeptical research *out of class* and present the findings and conclusions to the class.
3. Skeptically *investigate* a psychic/paranormal claim of a person known to a classmate (again, this could be conducted in class or outside of class). It is not acceptable to investigate someone you already know.
4. Research a topic skeptically and present to the class. Include its history, prevalence, current popularity and cultural effect, and a demonstration and/or group exercises.

An investigation requires that you inform the key person(s) involved that you are a student. Each student must be able to meet with research team outside of the scheduled hours for this class. Strongly consider this before agreeing to be in a certain research group. Consider video taping, where appropriate. Use the overhead projector (with typed copy for me) to show the class your results/summary data.
Project & Presentation Grading Criteria

Each of the following grading criteria on this project will carry equal weight:

1. **Preparation & Knowledge**
   How well did you know what you presented? Was the majority of the information read from notes or did you use your memory for at least a moderated amount of statistics (prevalence, frequency, research outcomes, etc.)? As your main source, you must use resource material other than our textbook. How many reference sources did you use (I’m looking for at least 5 for solo presentations or at least 8 for group presentations)? Did you cite the research during your presentation (with author and source) and without reading it? [credit for citations in the reference list is only given if it is pointed out during the presentation]. Did you provide instructor with a completed reference list and outline regarding delivery; Did you speak equally to everyone, including eye contact, or primarily just to the instructor?

2. **Analysis & Synthesis**
   **Analysis**
   Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.

   *Key Words*: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.

   **Synthesis**
   Builds a structure or pattern from diverse elements. Put parts together to form a whole.

   *Key Words*: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.

3. **Evaluation**
   Make sound judgments about the value of ideas or materials. What are the judgments based on?

   *Key Words*: appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports.


[note: do not allow previous presentations to determine yours-- this can be a dangerous trap]

**Sample references:**


Weekly Article Reviews

Select a skeptical/critical article on pseudoscience each week to be critically analyzed and presented to the class. The best periodicals for this assignment are Skeptical Inquirer and Skeptic magazine. Skeptical Inquirer has online articles as well at http://www.csicop.org/si/online.html, but you must purchase one of the two magazines at least once and present an article from that periodical. Your review(s) will be briefly presented to the class. The class will ask questions to students who present reviews. If it is obvious that the student is not prepared for a book/article review presentation, one letter grade will be deducted from final course grade. The book review, plus the weekly article reviews, will comprise 20% of the course grade.

Final Exam

Format to be given at a later date.

Summary

Each will weigh the same percentage of the final grade, so the final course grade will be easily calculated thusly:

Research Project & Presentation = 25%
Weekly Quiz Average = 25%
Final Exam = 25%
Participation & Discussion = 25% (see breakdown below)
  • General class participation/discussion/ (1/3 of Part/Disc grade)
  • Article Reviews (1/3 of Part/Disc grade)

The scale used to determine the final course grade is the one recommended by the University and appears below:

92.5 -100.00= A
90.0 - 92.49 = A-
87.5 - 89.99 = B+
82.5 - 87.49 = B
80.0 - 82.49 = B-
77.5 - 79.99 = C+
72.5 - 77.49 = C
70.0 - 72.49 = C-
67.5 - 69.99 = D+
62.5 - 67.49 = D
60.0 - 62.49 = D-
Below 60.00 = F
IV. REQUIRED RESOURCE MATERIAL

Required Books:


Periodical (not in OCU book store):
Skeptic (Skeptics Society). Altadena, CA.
or
Skeptical Inquirer (Committee for Skeptical Inquiry). Amherst, NY.

V. EXCUSED ABSENCES/HEALTH PROBLEMS

OCU Excused absences (athletic games, performances, etc.) and non-OCU sanctioned absences require a high degree of student responsibility. Make-up work, including exams must be arranged for before the excused absence. It is the students’ responsibility to contact the professor prior to any excused absence to arrange for make-up work. Exams must be taken before the excused absence date. Excused absences for OCU activities will only be recognized if the instructor has been provided written notice from an authorized OCU employee before the event occurs. If absent for health reasons, in order for it to be taken into consideration for the purpose of grading, it is the responsibility of the student to inform the instructor immediately—before the absence if possible—and to provide supporting documentation of the ailment at the earliest possible time, and that it prevents the student from attending class.

VI. CHEATING/PLAGIARISM POLICY

The OCU policy is published in the appropriate catalog (www.okcu.edu) and can be located at http://starport.okcu.edu/si/Academic Council/restricted/ (scroll down to “academic honesty final rev.”). Plagiarism/cheating will not be tolerated.

VII. SPECIAL ACCOMMODATIONS

If you need an accommodation due to a disability under the Americans with Disabilities Act, please contact Student Health and Disability Service Office immediately at 208-5991 or 208-5090. Advance notice is required for many accommodations.
VIII. ABSENCE POLICY

[For an 8 week 3-hour course meeting once weekly: Final grade lowered 10% for each absence*]

[*Unless an arrangement has been made with instructor for a substantial assignment substitution. Such substitution will likely be a 10-15 page research-based paper (APA Style) on a topic selected by the instructor. The instructor may also opt for the student to write an 8-12 page paper, and deduct a smaller % from the final grade.]

X. WRITING

At the college level, we assume that writing skills are acceptable. Everyone is expected to have good writing skills, use proper grammar, and have good sentence structure. Otherwise, their grade will be affected—even if the grading criterion for that particular assignment does not include writing skills. It is assumed that this paragraph is understood for all assignments, exams, and anything else handed in—for the duration of this class.

XI. MISCELLANEOUS

* Check OCU email regularly for assignments/instructions.
* Don’t confuse my personality with my grading standards.
* Each student is required to purchase the text book.
* Re-read this syllabus and ask questions next class.
* Check your OCU email regularly—you may find instructions/assignments periodically.
* Must have extraordinary circumstances to receive a grade of “Incomplete.” See appropriate catalog.
* Re-read relevant syllabus portion before starting any assignment.
* Do not use fancy folders or covers when handing in papers. Simply staple and hand in.
* Quizzes will be destroyed immediately after the customary class period for students to review them. If you miss or are late to that class, you may still see your score, upon request.
* Contact me if you are having trouble.
* All assignments are due at the moment class begins (on the due date).
* Make copies of all materials handed in.
* Raise your hand if you want to speak.
* Staple everything over one page (do not use paper clips).
* Responsibility (attendance sheet, be on time, turning off cell phones, staying until class ends, inform me if unable to attend, to have your paper stapled before you come to class, asking what you missed in class if absent, etc.).
* Distractions/disruptions will lower final grade considerably (talking to others while someone else has the floor, electronic devices going off like a pager, cell phone, etc.). If you are viewed by the instructor as distractive, then a final course grade in the “A” range will not be possible—period.
* Use of a laptop is prohibited.
* Recording class in any way is prohibited without written permission from me.
* Shifting gears.
* Tardy patterns accumulate into absences. Can affect Disc/Part grade—if not in class, cannot discuss or participate.
* Number of pages in this document.
* Some information via videos, guest speakers, outside material, etc., might be asked on assignments/exams (including final).
* Audio-visual phone number is 208-5159. Students call if equipment is needed for a presentation.
* Weather hotline: 208-5871 (to inquire about cancellation). Only OCU President can cancel classes. If OCU cancels class, **check OCU email often for alternative instructions.**
* StarNet is found at [http://starnet.okcu.edu/Pages/Default.aspx](http://starnet.okcu.edu/Pages/Default.aspx)
* My background.

**Due Dates:**
Article Reviews: Weekly
Quizzes: Weekly
Presentations (TBA by next class meeting)
Book Reviews: Week 7 (next to last class)
Final Exam: Week 8 (last night of class)

**Extra Assignment for Next Week:**
Before next class, go to [http://blog.newsok.com/smokeandmirrors](http://blog.newsok.com/smokeandmirrors) and provide a thoughtful comment on at least two blog posts.
**TENTATIVE SEMESTER OUTLINE**

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<th>Class</th>
<th>Activity</th>
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| 1     | **Introduction & Course Overview; Topic Selection**  
Why People Believe Weird Things (Dr. Michael Shermer)  
Ch.1: The Fine Art of Baloney Detection (PC) |
|       | **SPRING BREAK HERE—NO CLASS** |
| 2     | Ch.9: A Close Look at Therapeutic Touch (PC)  
Video: “The Power of Belief”  
Article Reviews  
Quiz: Why Study These Things? (Ch.2, Smith)  
*Presentation:* |
| 3     | Ch.3: Cold Reading (PC)  
Carl Sagan Biography  
Article Reviews  
Quiz: Are Claims Based on Observation? (Ch.5, Smith)  
*Presentation:* |
| 4     | Ch.  
Article Reviews  
Quiz: Reality Checking for Memory Errors (Ch.8, Smith)  
*Presentation:* |
| 5     | Ch.13: The Case For and Against Astrology (PC)  
Article Reviews  
Quiz: Sensory Anomalies & Hallucinations (Ch.10, Smith)  
*Presentation:* |
| 6     | “The Moon Was Full & Nothing Happened” (Dr. Ivan Kelly)—handout  
Quiz: Spiritualism and the Survival Hypothesis (Ch.11, Smith)  
*Presentation:* |
| 7     | Quiz: Energy Treatments & Complimentary Alternative Medicine (Ch.13, Smith)  
Ch.8: Why Bogus Therapies Often Seem to Work (PC)  
*Presentation:*  
Book Reviews |
| 8     | Finals Week: Final Examination & Course Synthesis  
Video: Magic  
Book Reviews |

*[Additional Assignments Will Be Made Periodically]*