

PH 254L, Special Topics: Healthy Skepticism (4 Units)
California State University, Los Angeles, Spring 2012

Instructor: William M. London, Ed.D., M.P.H., Professor, Department of Public Health
Section 1: Mondays and Wednesdays, 1:30-3:10 PM, Room SH C261

CATALOG DESCRIPTION: An introduction to skeptical inquiry as a foundation for drawing sound conclusions about popular claims made about health-related lifestyle practices, practitioners, facilities, products, services, and information portals. Healthy skepticism emphasizes careful consideration of scientific evidence and knowledge, and human susceptibility to deception and misperception.

LEARNING OUTCOMES

Upon successful completion of this course, the students will be able to:

- Discuss the major challenges, considerations, and science-based resources for distinguishing fact from fiction regarding information about health products, services, and practices promoted in the health marketplace. [GE Blocks B3 & D content knowledge outcome.]
- Apply key concepts of skeptical inquiry and science-based health care to plan and conduct meaningful descriptive studies concerning the promotion of health products, services, practices, and/or information in the health marketplace. [GE Blocks B3 & D process of inquiry outcome.]
- Explain why testimonials regarding the effectiveness of health products, services, and practices are not trustworthy even when they are appealing. [GE Blocks B3 & D information base outcome.]
- Evaluate quackery as a public health problem and efforts to combat quackery. [GE Blocks B3 & D discipline relationship outcome.]

Honors College Learning Outcomes Addressed:

- Participate in the scholarly communication process through various activities. [Health marketplace investigations will be the main activity.]
- Determine the availability of needed information and make decisions based on critical evaluation and other criteria. [Students will use health-related skepticism resources.]
- Locate, evaluate, record, synthesize, and manage information using available and emerging technologies. [Internet-based health marketplace investigation activities will be carried out.]
- Demonstrate the ability to participate in disciplinary discourse communities. [Students will share their learning with consumer advocates, consumers, scientists, and health professionals.]

Identify themselves as active participants capable of having an impact on the social, political, business, and cultural, and educational communities we serve. [Students will draw and share conclusions about problems in the health marketplace.]

TOPIC OUTLINE

- I. Skeptical Inquiry
 - A. Skepticism Versus Cynicism, Denialism, and Conspiracy Theorizing
 - B. Core Concepts
 - C. Identifying Fallacies and Cognitive Biases
 - D. Science Versus Health Superstition and Magic
 - E. The Scientific Foundation of Health Care
 1. Science as a Process
 2. Hierarchy and Standards for Clinical Evidence
 3. Plausibility in Light of Biology, Chemistry, and Physics
 4. Science-Based Medicine Versus Evidence-Based Medicine

- 5. Health Care as Science and Art
 - F. Clinical Illusions: How Patients, Practitioners, Sellers, and Researchers are Vulnerable to Deception and Misperception
 - G. The Skeptics Movement
- II. Dynamics of the Health Marketplace
 - A. Public Health Achievements and Challenges
 - B. Consumer Health Issues
 - C. Skeptical Inquiry Through Health Marketplace Investigations
- III. Health-Related Testimonials
 - A. Two Kinds of Anecdotes: Testimonials Versus Case Reports
 - B. The Appeal of Testimonials
 - C. Faked Testimonials
 - D. Sincere Testimonials
 - E. Self-Justifying Testimonials
 - F. Why Testimonials Are Often Not Trustworthy
- IV. Quackery
 - A. The Semantics, Signals, and Settings of Quackery
 - B. Vulnerability to Quackery
 - C. Quackery as a Global Public Health Problem: How It Harms, Why It Persists
 - D. The Health Freedom Movement
 - E. Faddism and Cultism in Quackery
 - F. Characteristics of Non-Scientific and Pseudoscientific Health Care Systems
 - G. Avoiding Quackery
 - H. Anti-Quackery Resources

COURSE REQUIREMENTS

Readings and Videos

Readings and videos are part of the course setup on Moodle. Assigned readings and videos are provided to support your efforts at completing assignments

1. Skeptical Inquiry
 - A. Skepticism Versus Cynicism, Denialism, and Conspiracy Theorizing
 1. A brief introduction. *Skeptic's Society*. http://www.skeptic.com/about_us/
 2. A skeptical manifesto. *Skeptic's Society*. http://www.skeptic.com/about_us/manifesto.html
 3. Hoofnagle M. About. *Denialism Blog*. April 30, 2007.
 4. Goertzel, T. The conspiracy meme. *Skeptical Inquirer* 35(1), January/February 2011. http://www.csicop.org/si/show/the_conspiracy_meme
 5. Barrett S. Novella S. Is there a conspiracy to suppress cancer cures? *Quackwatch*. June 22, 2000. <http://www.quackwatch.org/01QuackeryRelatedTopics/Cancer/conspiracy.html>
 6. Nattress N. Foreword. In Kalichman S. *Denying AIDS: Conspiracy Theories, Pseudoscience, and Human Tragedy*. Spring Science and Business Media, 2009. http://www.quackwatch.org/04ConsumerEducation/aids_denial.html
 8. Stossel J. Ruppel G. & Mastropolo F. King Con—selling questionable cures? ABC 20/20, Jan. 20, 2006. http://abcnews.go.com/2020/Health/story?id=1527774#.UKg9_a7Ew9U
 9. Tapper J. Is infomercial king a helper or huckster? ABC Nightline. Jan. 13, 2006. <http://abcnews.go.com/Nightline/story?id=1503856#.UKg-xK7Ew9U>

B. Core Concepts in Healthy Skepticism

1. Skrabanek, P. Demarcation of the absurd. *Lancet* 327:960-961, 1986.
2. Sampson W. Atwood K. 4th. Propagation of the absurd: demarcation of the absurd revisited. *Med J Aust* 183(11-12):580-581, 2005.
3. Atwood K, 4th. What is science? *Science-Based Medicine Blog*. February 3, 2012. <http://www.sciencebasedmedicine.org/index.php/what-is-science/>
4. Hyman R. Proper criticism. *Skeptical Inquirer* 25(4), 2001.
5. Lett, J. A field guide to critical thinking. *Skeptical Inquirer* 14(4), 1990.

C. Identifying Fallacies and Cognitive Biases

1. Rhetological fallacies: errors and manipulations of rhetoric and logical thinking. *Information Is Beautiful*. <http://www.informationisbeautiful.net/visualizations/rhetological-fallacies/>
2. Bridge 8. Critical thinking explained in six kid-friendly animations. *io9 We Come from the Future*. <http://io9.com/5888322/critical-thinking-explained-in-six-kid-friendly-animations>
3. Stephen's guide: the logical fallacies. *One Good Move*. <http://onegoodmove.org/fallacy/toc.htm>
4. Top 20 logical fallacies. *Skeptics' Guide to the Universe*. <http://www.theskepticsguide.org/resources/logicalfallacies.aspx>
5. Wray B. Cognitive Bias Videosong. <http://www.youtube.com/watch?v=3RsbmjNLQkc>
6. Carroll RT. *Unnatural Acts That Can Improve Your Thinking*. <http://59ways.blogspot.com/>
7. Barrett S. Herbert V. More ploys that can fool you. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/ploys.html>

D. Science Versus Health Superstition and Magic

1. Hall H. Teaching pigs to sing: An experiment in bringing critical thinking to the masses. *Skeptical Inquirer* 30(3), 2006. http://www.csicop.org/si/show/teaching_pigs_to_sing_an_experiment_in_bringing_critical_thinking_to_the_ma
2. Coker R. Distinguishing Science and Pseudoscience. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/pseudo.html>
3. Science Needs to Combat Pseudoscience: A Statement by 32 Russian Scientists and Philosophers. *Izvestiya*, July 17, 1998 (republished in the Jan/Feb 1999 issue, *Skeptical Inquirer*). Available at <http://www.quackwatch.org/01QuackeryRelatedTopics/russian.html>
4. Jarvis WT. Misuse of the term "allopathy." *National Council Against Health Fraud*. <http://www.ncahf.org/articles/a-b/allopathy.html>
5. Carroll RT. Magical thinking. *The Skeptics' Dictionary*. <http://www.skepdic.com/magicalthinking.html>
6. Carroll RT. Superstition. *The Skeptics' Dictionary*. <http://www.skepdic.com/superstition.html>
7. Carroll RT. Vitalism. *The Skeptics' Dictionary*. <http://www.skepdic.com/vitalism.html>
8. McMahon P. Psychics' practices protected by religious rights, lawyers say. *Orlando Sentinel* April 8, 2012. http://www.orlandosentinel.com/news/local/fl-gypsy-psychic-religion-20120408_0_2585904.story
9. Feynman RP. Cargo cult science. *Engineering and Science* [Cal Tech] June 1974, p. 10-13. <http://calteches.library.caltech.edu/3043/1/CargoCult.pdf>
10. Orac. The Enemies of Reason, part 2: The Irrational Health Service (with a review). *Respectful Insolence Blog*. August 22, 2007. <http://scienceblogs.com/insolence/2007/08/22/the-enemies-of-reason-part-2/>

E. The Scientific Foundation of Health Care

1. Schwarcz J. Barrett S. Some notes on the nature of science. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/science.html>

2. Introduction to Evidence-Based Practice, Fifth Edition [tutorial]. Duke University Medical Center Library and Health Science Library, UNC Chapel Hill, 2010.
<http://www.hsl.unc.edu/services/tutorials/ebm/>
 3. Carroll RT. Science-based medicine. *Skeptics' Dictionary*. December 10, 2010.
<http://www.skepdic.com/sciencebasedmedicine.html>
- F. Clinical Illusions: How Patients, Practitioners, Sellers, and Researchers are Vulnerable to Deception and Misperception
1. Carroll RT. Book review: "How Doctor's Think" by Jerome Groopman. *Skeptics' Dictionary*. February 26, 2008. <http://www.skepdic.com/refuge/groopman.html>
 2. Learn to be psychic in 10 easy lessons. *Skeptics Society*.
http://www.skeptic.com/downloads/10_Easy_Psychic_Lessons.pdf
 3. Beyerstein BL. Why bogus therapies often seem to work. *Skeptical Inquirer* 1997 Sept/Oct. Reprinted at Quackwatch.
<http://www.quackwatch.org/01QuackeryRelatedTopics/altbelief.htm>
 4. Alcock J. The belief engine. *Skeptical Inquirer* 19(3), 1995.
http://www.csicop.org/si/show/belief_engine/
 5. Novella S. The skeptical clinician. *Science-Based Medicine*. April 18, 2012.
<http://www.sciencebasedmedicine.org/index.php/the-skeptical-clinician/>
- G. The Skeptics Movement: Links to Some Key Organization Sites
1. Skeptic Ring <http://hub.webring.org/hub/skeptic>
 2. Anti-Quackery Ring <http://hub.webring.org/hub/antiquackerysite>
2. Dynamics of the Health Marketplace
- A. Public Health Achievements and Challenges
1. Ten great public health achievements -- United States, 1900-1999. *MMWR* 48(12);241-243, April 02, 1999. <http://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>
 2. Detels R. The Scope and Concerns of Public Health. [Chapter 1.1]. In R. Detels, R. Beaglehole, MA Lansang, M Guilford [eds.] *Oxford Textbook of Public Health, Fifth Edition*. Oxford University Press, 2011.
- B. Consumer Health Issues
1. Barrett S. London WM. Kroger M. Hall H. Baratz R. Consumer Health Issues [Chaper 1]. *Consumer Health: A Guide to Intelligent Decision, Ninth Edition*. McGraw-Hill Higher Education, 2013. Available at <http://www.chsourcebook.com/01.pdf>
 2. Web site evaluation index. *Quackwatch*.
<http://www.quackwatch.org/12Web/webindex.html>
- A. Skeptical Inquiry Through Health Marketplace Investigations
- Students should refer to the following investigations as models for conducting their own small-scale health marketplace investigations.
 1. Caulfield T. Rachul C. Supported by science? what Canadian naturopaths advertise to the public. *Allergy, Asthma & Clinical Immunology* 2011, 7:14 doi:10.1186/1710-1492-7-14. <http://www.aacjjournal.com/content/7/1/14>
 2. Ernst E, Gilbey A. Chiropractic claims in the English-speaking world. *N Z Med J* 2010 Apr 9;123(1312):36-44.
 3. Jordan MA. Haywood T. Evaluation of internet websites marketing herbal weight-loss supplements to consumers. *J Alt Comp Med*. 2007;13(9):1035-1043.
 4. Mantle F. The risks associated with consumer magazines giving advice on complementary therapies. *Nursing Times* 2009, 105: 48.
 5. Miller RW. Critiquing quack ads. *FDA Consumer*, March 1985. Available at <http://www.quackwatch.org/01QuackeryRelatedTopics/PhonyAds/critiquing.html>

6. Cooper B.E.J., Lee W.E., Goldacre B.M., Sanders T.A.B. The quality of the evidence for dietary advice given in UK national newspapers (2012) *Public Understanding of Science*, 21 (6), pp. 664-673.
7. "You've got drugs!" V: Prescription drug pushers on the Internet. A CASA White Paper. National Center on Addiction and Substance Abuse at Columbia University. July 2008. <http://www.casacolumbia.org/articlefiles/531-2008%20You've%20Got%20Drugs%20V.pdf>
8. Starman JS, Gettys FK, Capo JA, Fleischli JE, Norton HJ, Karunakar MA. Quality and content of internet-based information for ten common orthopaedic sports medicine diagnoses. *J Bone Joint Surg Am*. 2010;92(7):1612-1618. doi: 10.2106/JBJS.I.00821.
9. Rosa L. Night of the living naturopaths. *Science-Based Medicine*. January 26, 2012. <http://www.sciencebasedmedicine.org/index.php/night-of-the-living-naturopaths/>

3. Health-Related Testimonials

1. London WM. It worked for me: the healthy skeptic's guide to testimonials. Health Promotion LiveWebinar. April 1, 2011. <http://www.youtube.com/watch?v=i2u1XbOCbUs>
2. London WM. Summary of "It worked for me: the healthy skeptic's guide to testimonials. April 1, 2011. <http://healthpromotionlive.com/files/2011/03/TestimonialLectureSummary.pdf>
3. Carroll RT. Anecdotal (testimonial) evidence. *The Skeptics' Dictionary*. <http://www.skepdic.com/testimon.html> Last updated June 15, 2012.

4. Quackery

1. Quackery-Related Definitions. *National Council Against Health Fraud, Inc.* <http://www.ncahf.org/pp/definitions.html> March 3, 2001.
2. London WM. Anti-quackery efforts in the United States. Adapted from a speech given on October 14, 2000, at "Aesculapius in Cyberspace: Doctors, Patients and Quacks on the Internet," a symposium in Utrecht, The Netherlands organized by the Dutch Union Against Quackery [Vereniging tegen de Kwakzalverij (VtdK)] <http://www.ncahf.org/papers/antiquackery.html>
3. London WM. Statement to the White House Commission on Complementary and Alternative Medicine Policy. Washington, DC. May 15, 2001. <http://www.ncahf.org/papers/whccamp.html>
4. London WM. Please don't define "complementary and alternative health practices." *Science-Based Medicine*. October 28, 2011. <http://www.sciencebasedmedicine.org/index.php/please-dont-define-complementary-and-alternative-health-practices/>
5. Barrett S. Quackery: how should it be defined? *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/quackdef.html> Revised January 17, 2009.
6. Barrett S. Jarvis W. How quackery sells. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/quacksell.html> Revised January 20, 2005.
7. Barrett S. Herbert V. Twenty-five ways to spot quacks and vitamin pushers. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/spotquack.html> Revised March 19, 2008.
8. Barrett S. Common misconceptions about quackery. *Quackwatch*. <http://www.quackwatch.org/01QuackeryRelatedTopics/miscon.html> Revised August 30, 1999.

Assignments

1. Health Marketplace Investigation Part 1: Specific Aim
2. Health Marketplace Investigation Part 2: Background
3. Health Marketplace Investigation Part 3: Method
4. Health Marketplace Investigation Part 4: Results (or Findings)
5. Health Marketplace Investigation Part 5: Discussion
6. Health Street Smarts Fair Exhibit
7. Fallacy (and/or Propaganda Ploy) Hunt
8. Online Discussion #1: Skepticism Versus Cynicism, Denialism, and Conspiracy Theorizing
9. Online Discussion #2: Core Concepts in Healthy Skepticism
10. Online Discussion #3: Science Versus Health Superstition and Magic—and Testimonials

Grading

Overview: Each of the 10 assignments will be graded on this scale:

<u>Performance Rating</u>	<u>Points</u>
Proficient and on time	3
Satisfactory and on time OR proficient and less than a week late	2
Satisfactory and less than a week late OR proficient and more than a week late	1
Unsatisfactory OR satisfactory and more than a week late	0

Scale for Final grades

<u>Grade</u>	<u>Points</u>
A	29-30
A-	27-28
B+	25-26
B	23-24
B-	21-22
C+	19-20
C	17-18
C-	15-16
D+	13-14
D	11-12
D-	9-10
F	<9

Grade Boosters

At the instructor’s discretion, regular attendance and helpful collaboration with classmates will be rewarded with modest boosting of grades

Assignment Details

Health Marketplace Investigation (Parts 1-5)

This 5-part assignment involves planning, conducting, and reporting about an original, descriptive investigation of a specific well-defined problem in the consumer health marketplace. The consumer health marketplace consists of products, services, lifestyle regimens, facilities, providers of health care, and consumer health information resources promoted via advertising, publicity, direct selling, word-of-mouth, or in information resources. The assignment can be completed in the spirit of a “Web Quest” (see <http://webquest.org/>), but investigations of promotional efforts aside from the Web may be carried out for this assignment.

Several types of investigations are appropriate:

A. Promotional Claims Made in a Specified Range of Advertising and/or Publicity. Consumers encounter promotional claims made for products and services via a range of print and electronic media including: newspapers, newsletter, magazines, books, booklets, brochures, flyers, videotapes, television, radio, Web sites, unsolicited commercial e-mail (spam), lectures, sales presentations, community education courses, school curricula, degree programs, etc. One type of project can focus on identifying explicit and implicit promotional claims related to safety, effectiveness, and/or validity in a defined range of advertisements and/or publicity and evaluating the evidence provided in support of the promotional claims. Investigations may focus on a specific product or type of products, a specific service or type of service, or products & services available for a specific disease or health concern.

B. Availability of Specified Health-Related Products in Retail Outlets in a Defined Urban Community. Products of interest could include specific dietary supplements, drugs, devices, foods, etc. The best projects are likely to focus on products of dubious value or underutilized products of significant value. Labeling, product literature, and promotional strategies of products studied would also be relevant.

C. Credentials of Healthcare Providers. The focus for this type of investigation is on the extent to which healthcare providers in a defined field in a defined urban community have meaningful credentials or have unrecognizable credentials.

D. Other Types of Descriptive Studies to Be Negotiated with the Instructor.

The investigation must not be simply a review of scholarly/popular/professional literature on a particular topic (in other words, a standard “term paper”); however, library research will be an essential component of your proposal to provide background, perspective, and the significance of your investigation.

Students must not attempt to do a study designed to evaluate the safety or efficacy of a product or service. It is simply not possible to carry out such a study in the context of this course.

Students must not complete an investigation involving interaction with human beings or private records of human beings. Such an investigation would require Institutional Review Board approval and would not be feasible as an investigation that could be completed in a quarter.

The investigation consists of five parts:

1. **Specific Aim:** Clarify what the investigation is about. Define the problem to be addressed. What question is the investigation address?
2. **Background:** Establish what is already known that is relevant and what is significant about the addressing the aim in part 1.
3. **Method:** Clarify the procedure used to collect, organize, and present data in order to achieve the aim of the investigation. Then once you have approval from the instructor, proceed with data collection.
4. **Results (or Findings):** Present the findings. This will include narrative and usually tables and/or figures.
5. **Discussion:** Summarize what the findings mean, strengths and limitations of the investigation, and implications for consumers, professional, regulators, and/or public policy, etc.

Health Street Smarts Fair Exhibit

Each student will be assigned to a small group of students and each small group will plan an exhibit for an on-campus health fair to be conducted on May 9th during class time on the main campus walkway. Tables will be provided. Additional equipment may be provided as needed.

Each exhibit should be designed to inspire critical thinking about popular type of product, service, or practice intended to influence health. Critical thinking has been defined numerous ways including:

- “A persistent effort to examine evidence that supports any belief, solution, or conclusion prior to its acceptance. The ability to think clearly, to analyze, and to reason logically.”
<http://www.misd.net/gifted/terms.htm>
- “Reasonable reflective thinking that is focused on deciding what to believe or do. More precisely, it is assessing the authenticity, accuracy, and/or worth of knowledge claims and arguments. It requires careful, precise, persistent and objective analysis of any knowledge claim or belief to judge its validity and/or worth.” <http://www.seattlecentral.org/faculty/jshoop/glossary.html>
- “Focused, organized thinking about such things as the logical relationships among ideas, the soundness of evidence, and the differences between fact and opinion.”
http://www.nku.edu/~weiss/Classes/Public_Speaking/ChapterTerms.htm
- “Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.” <http://criticalthinking.org/aboutCT/definingCT.shtml>
- “...the examination and test of propositions of any kind which are offered for acceptance, in order to find out whether they correspond to reality or not. The critical faculty is a product of education and training. It is a mental habit and power. It is a prime condition of human welfare that men and women should be trained in it. It is our only guarantee against delusion, deception, superstition, and misapprehension of ourselves and our earthly circumstances.” [Sumner, W. G. (1940). *Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals*, New York: Ginn and Co., pp. 632. Cited at <http://criticalthinking.org/aboutCT/sumnersDefinitionCT.shtml>]

Each exhibit should be engaging and, if possible, have interactive features. It should not involve simply distributing products or information. Each exhibit must have, at minimum: (1) prior approval by the instructor, (2) a stated instructional purpose that involves some aspect of critical thinking, (3) a demonstration by exhibitors to achieve the purpose, and (4) a brief summary of what the demonstration illustrates (as a take-home message for visitors to the exhibit). Within 8 days following the health fair, each group member should submit a clear, coherent write-up (100-300 words) in the designated area of Moodle that provides an assessment of how the exhibit was received, what about it worked well, and how it might have been improved. Interactive exhibits may include prizes for visitors who participate and successfully complete tasks set up for them.

Group members who complete all aspects of the assignment and who were engaged in the planning and implementation of the exhibit will receive a performance rating of proficient. Group members who complete most of the assignment will receive a performance rating of satisfactory.

Models to Inspire Exhibit Development

1. Therapeutic Touch Demonstration - Healing Energy Therapy by Sophia Zoe.
<http://www.youtube.com/watch?v=aLPJRcbSD9U>
2. Stossel Testing Therapeutic Touch. <http://www.youtube.com/watch?v=mNoRxCRJ-Y0>
3. Astrology Debunked - Sagan, Dawkins, Nye, Randi, Tyson. <http://www.youtube.com/watch?v=-1nsEtjqPg8>
4. Stossel: Skepticism Part 4 James Randi's Million Dollar Prize.
<http://www.youtube.com/watch?v=Mak252eVB5o>
5. Power Balance Tests. <http://www.youtube.com/watch?v=Ynbx5JfEwcA>
6. Applied Kinesiology - How it's Done. <http://www.youtube.com/watch?v=Piu75P8sxTo>

7. James Randi Tests Crystal Power and Applied Kinesiology. http://www.youtube.com/watch?v=p_MzP2MZaOo
8. Detox Foot Bath or Just A Dirty Dip. <http://www.youtube.com/watch?v=qV70Usx1d9g>
9. kinoki detox foot pads. http://www.youtube.com/watch?v=_AYckOE0X94
10. Woolston C. Ionic foot baths have Achilles' heel. *Los Angeles Times* January 18, 2010. <http://articles.latimes.com/2010/jan/18/health/la-he-skeptic18-2010jan18>
11. Woolston C. Pheromones in your cologne? Good luck. *Los Angeles Times* July 16, 2007. <http://articles.latimes.com/2007/jul/16/health/he-skeptic16>

Fallacy (and/or Propaganda Ploy) Hunt

Find 10 examples of rhetological fallacies and/or propaganda ploys offered at Web sites created to sell products or services, or to promote supposedly healthy personal health practices (healthy lifestyles). For each example, provide: (1) an exact quotation of the misleading statement, (2) provide the URL of the Web page it's on, (3) describe briefly anything needed to clarify the context of the quotation (such as the nature of the Web site and/or what larger point the writer is trying to make), (4) identify the type of fallacy or ploy you think the quotation represents, and (5) a discussion explaining/defending your choice of fallacy or ploy. Keep in mind that it is sometime debatable what is fallacious about particular statements.

The simplest way to write up this assignment is to create a 5-column table in a Word document with a column each for (1) to (5) above and a row for each example. Upload the document in the designated area of Moodle by June 13th at 11:55 PM.

Online Discussions #1, #2, and #3

Online Discussion #1 will address assigned readings and videos in the Moodle block on Skepticism Versus Cynicism, Denialism, and Conspiracy Theorizing. Online Discussion #2 will address assigned readings and videos in the Moodle Block on Core Concepts in Healthy Skepticism. Online Discussion #3: Science Versus Health Superstition and Magic—and Testimonials. Due dates for postings for each discussion will be announced in class and on Moodle.

Each online discussion is at least a two-part task. (Each discussion could wind up having more than two parts in case your first parts are sub-par or in case you wind up getting interested in the task beyond just getting points toward your course grade.)

The two parts are: (1) post a substantive, carefully considered 300-500-word commentary on the theme of this block in which you discuss what you learned (and/or wish you had learned) from the readings/videos of the block and any afterthoughts you had, and (2) post constructive, analytic feedback (150-300 words) in response to the commentary of at least one of your classmates participating in your forum.

In part 1 of the task, you should offer analysis of substantive issues. Your analysis may address such considerations as:

- Major messages in the readings.
- Implicit or explicit assumptions made by authors.
- Key insights.
- How well arguments are supported by sound reasoning and/or evidence.
- Clarity and soundness of authors' reasoning.
- Degree of persuasiveness of author's arguments and reasons for persuasiveness.
- Insights/issues neglected.
- Your prior familiarity with points made or information provided.
- How you were challenged in how you think about health or other issues.
- Anything disappointing or disturbing to you.

Be sure to cite sources whenever you refer to the work of others or make assertions of fact requiring support. (See guidelines at <http://www.dartmouth.edu/~sources/about/when.html> and <http://writing.eng.vt.edu/workbooks/documentation.html> and <http://sun.menloschool.org/~mgrajeda/citationflowchart.pdf> and <http://www.utoronto.ca/writing/plagsep.html> about when to cite sources. Reference citations don't count as part of the required word counts.)

In part 2 of the task, you should be polite, be cordial in expressing any disagreement, feel free to seek clarification of any points, avoid evaluating/judging the quality of any of your classmates' posts, misrepresent anyone else's viewpoints, focus on generating enlightenment rather than heat, and avoid pretending to expertise you don't have.

Your postings must ***not*** have any of these problematic features:

- Emphasis on summarizing, describing, or simply rehashing the assigned reading/videos instead of ***analyzing them!***
- Opinions rather than analysis.
- Lack of a paragraph structure.
- Evidence of serious misunderstanding of the reading.
- Lack of consideration of relevant evidence.
- Personal anecdotes (for reasons described in the block on testimonials).
- Serious organizational problems.
- Unsupported or inadequately supported assertions of facts.
- Irrelevant commentary.
- Muddling of fact and opinion.
- Fallacious reasoning.
- Incoherent presentation of ideas.
- Excessive or unnecessary quotation and paraphrasing.
- Misrepresentation of authors' positions.
- *Ad hominem* attacks rather than analysis of ideas.
- Unoriginal/plagiarized content.

One more guideline: Try to have fun and try to see yourself as among friends. (I hope you won't have to try very hard.)

TEACHING STRATEGIES

Learning will be facilitated mostly by small-group discussions and planning meetings in-class supplemented by discussions in Moodle. Readings and videos will be available in Moodle and discussed by the instructor in-class.

COURSE SCHEDULE

UNIVERSITY POLICIES

Academic Honesty

The University in its quest for truth and knowledge embraces honesty and integrity. These fundamental values must not be compromised. The trust and respect among professors, students and the society need to be vigilantly protected. Cheating and plagiarism can neither be justified nor condoned as this would destroy the ideals and purposes of higher education. Students enter the University to gain the knowledge and tools necessary for participation in society. Academic integrity is a foundation for society based on trust and honesty. Therefore, the University takes seriously its responsibility for academic honesty.

Policy for the Provision of Services to Students with Disabilities

The California State University is committed to providing opportunities for higher education to students with disabilities in its student enrollment, and to make its programs, activities and facilities fully accessible to persons with disabilities. During the first week of classes, please give your instructor an official copy of accommodations recommended for you from the Office for Students with Disabilities [(323)343-3140].

COURSE POLICIES:

Each student is responsible for obtaining and reading the Student Handbook available for purchase in the Bookstore.

Add-Drop Policy

California State University, Los Angeles instructors DO NOT add students to classes. It is the student's responsibility. If an instructor indicates a "P" (permit) or "U" (authorization) to add a course, you must register within (3) three days. An instructor may drop any officially enrolled student who fails to attend the first class meeting. However non-attendance does not mean the student has been dropped from a class. If you wish to add or drop a class after the second week, you must:

- Obtain a university add/drop form
- Procure all appropriate signatures, and
- Turn in the form to Administration 146.

Late adds or drops will only be considered for strongly compelling and verifiable reasons on a case-by-case basis. After the seventh week of the quarter, only complete withdrawals will be considered.

Additional Course Policies

1. Cheating and plagiarism will not be tolerated in this class.
2. Disruptive behavior will not be tolerated in this class.
3. Incompletes will only be granted for compelling medical or emergency reasons.
4. PLEASE TURN OFF YOUR CELL PHONE DURING CLASS.

*You are strongly encouraged to use the **University Tutorial Center services** offered free to students. Call (323) 343-3971 or www.calstatela.edu/centers/tutorctr*

*It is highly recommended you contact the **University Writing Center** to assist you in writing your assignments. The earlier you seek assistance the better. Call (323) 343-5350 or www.calstatela.edu/centers/write_CA*