The following is a contribution to the JREF's ongoing blog series on skepticism and education. If you are an educator and would like to contribute to this series, please contact rjblaskiewicz@gmail.com

Having spent the previous three years at Kean University assembling a core curriculum in the history of science, technology, and medicine I thought a philosophy of science course would round out the program nicely. I did some assessment in the form of asking faculty, students, and colleagues from other institutions what they thought of this idea. The response was a collective pointing of fingers into mouths with the accompanying "aaahhkkk" of distaste and boredom. Rethinking my position, I proposed a course on the history of pseudoscience instead. The gagging stopped, replaced by smiles and nods of affirmation and many suggestions on case studies, text books and papers to read. I went right to work.

A course on the history of pseudoscience solves several pedagogical problems. A course involving ghosts, UFOs, spirit mediums, and monster hunters draws in students who otherwise would never go anywhere near a philosophy of science class. It teaches them how to tell the difference between what science is and what it is not, it teaches them to think skeptically and critically, and it does this within an historical context. It also allows me to spend time in the classroom on my specific research. I work on the fringe aspects of scientific thought focusing on the relationship between amateur practitioners and professional scientists, particularly surrounding questions of biological evolution and its impact upon culture, religion and politics. Drawn in by ghosts and monsters, students learn the tenants of the philosophy of science almost without realizing it. They learn how fascinating and useful philosophical, skeptical, and critical thought can be to the everyday experience.

My course proposal was sent to the university curriculum committee and once accepted and approved became HIST3854 *History of Pseudoscience in America* . It first ran in 2010 and student response has been overwhelmingly positive. It has drawn students not only internally from the history department, but from the Science, Technology, Engineering, and Mathematics (STEM) program. Students from as far afield as psychology, English, and religion and philosophy have enrolled.

There are many exceptional scholarly works on pseudoscience out there, but unfortunately they mostly deal with specific aspects with few dealing broadly with the history. As a result I chose to use as a basic text my own. *Pseudoscience: A Critical Encyclopedia* (Greenwood, 2009). To supplement this (as I do with all my classes) I use a series of scholarly articles. I mix classic works such as Paul Thagard on astrology, Thomas Gieryn on demarcation, and of course articles about the work of Thomas Kuhn with newer ones. The web site for the course has a series of links to on-line sources on pseudoscience history I think are appropriate as well as several wacky photographs from the history of odd thinking to dress it up (I also make extensive use of PowerPoint in class to show photos of various personalities, artwork and incidents from pseudoscience).

Focusing on the history of pseudoscientific thinking, the course is built around a series of case studies in chronological order. Students are encouraged to track sources of pseudoscientific claims and to think critically and skeptically when examining them. It begins with setting definitions of science and pseudoscience. Starting with astrology and alchemy and working through spiritualism, Forteana, ghost hunting, eugenics, dubious geology, UFOs, and cryptozoology the course addresses these issues always with an emphasis on determining what makes them pseudoscientific or not. Discussions where students argue something is not pseudoscientific are encouraged. I add additional topics depending on current aspects of pseudoscience in the news. Another important issue I address in class is the process by which topics can jump from one realm to another. Students study how some ideas originally thought to be properly scientific later end up on the pseudoscience side of the tracks such as eugenics, while some once thought to be pseudoscientific, such as alchemy, have been reevaluated by scholars in a more positive light (I also teach a course *The History of Alchemy and the Origins of Modern Science*). Cryptozoology is viewed as something roundly thought to be pseudoscientific but which has the potential to become mainstream science. This approach, I think, gives the student a more subtle and nuanced view of a complex field of study in which black & white characterizations are the norm. Along with the secondary histories, emphasis is placed upon the use of primary source documents. The work load is a mid-term and final exam along with a major research paper. Students may choose any topic—with my approval—that falls under the rubric of the history of pseudoscience. They must tell the topic's history and examine its social impact.

There are several courses offered at US colleges and universities which include discussions of pseudoscience. A few, such as Portland State's *Science and Pseudoscience* and CUNY's *Philosophy of Pseudoscience*
, are focused on the philosophical aspects. Mine is focused primarily upon the historical component. These others should be consulted as models by anyone considering building such a course. A history of pseudoscientific thought can greatly add greatly the critical thinking component of any university assessment program and pedagogical mission particularly in the realm of the advancement of critical thinking skills.

Finally, as this is the year 2012 a special panel discussion, with specialists on Mayan history and millennialism in the church, will be held and open to the public, in November on End Time prophesy and the end of the world.

Dr. Brian Regal is an Assistant Professor for the History of Science, Technology, and Medicine in the Department of History at Kean University. He is the author of several books and articles about science and pseudoscience, including most recently,
Searching for Sasquatch: Crackpots, Eggheads, and Cryptozoology
(2011).