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## Sac State initiative combines science, history and philosophy

Two Sac State professors have launched an initiative that melds science, philosophy and history into a unified approach to help students better understand the material in all three fields.

History Department Chair Aaron Cohen and Center for Philosophy and the Natural Sciences (CPNS) Director Michael Epperson are leading this cross-college initiative between Arts and Letters and Natural Sciences and Mathematics, which began as a research center in 2008.

According to Epperson, CPNS ([www.csus.edu/cpns](http://www.csus.edu/cpns)) was designed to find a perfect spot between teaching and research, with the idea that the two are not mutually incompatible. "In fact, they're complementary endeavors," Epperson says. "If you're engaged in scholarship, it's going to make you a better instructor, and vice versa."

The center served as a venue to bring together people from different institutions in the U.S. and Europe.

Now the professors would like to advance what already has been established into a History and Philosophy of Science (HPS – [www.csus.edu/cpns/hps.html](http://www.csus.edu/cpns/hps.html)) program.

Courses and supporting events would be based in a rapprochement of science and the humanities, giving students in each of the disciplines not only a better understanding of the other, but also insight into their own field.

"So the science students understand the historical and philosophical basis for what they're doing, and the historians and philosophers understand what the scientific basis is for what they're looking at," Cohen says.

Too often, says Epperson, a high school student will get intrigued and motivated by a popular science show, such as the recent *Cosmos* series, but drop out of his or her first semester of college quantum theory class. "Not every student is capable of thinking in pure abstract terms," Epperson says.

And on the other hand, students with a strong STEM (science, technology, engineering and math) background often wonder why they need to take humanities courses such as history for their general education requirements.

Courses such as History of the Physical Sciences (offered this fall) or the History of Ancient Science, coming this spring, offer alternatives to students in both disciplines.

Another feature of the initiative is bringing guest speakers to campus for presentations both academic and aimed at the lay person.

The first, 7 to 8:30 p.m. Wednesday, Nov. 5, is "Cosmic Agnosticism: Current Problems and Alternative Perspectives in Cosmology," by Timothy E. Eastman, senior physicist, NASA Goddard Sciences and Exploration Directorate. That presentation is aimed at a general audience and is open to the public. It will be held in the Library's Petris Room

(3023). The second presentation – “The Plasma Universe: Gravity Plus Electromagnetism” – is for Sac State faculty and students. It will be held 4 to 5:20 p.m. Thursday, Nov. 6, in Mendocino Hall 1015.

Another factor that makes this initiative special is the partnerships involved with the research side. International partners such as ETH Zurich, a leading university for technology and the natural sciences, and the University of Athens give Sac State’s HPS a chance to pursue grants outside of the United States, which has few funding opportunities for this type of endeavor. “I couldn’t apply for a Swiss National Science grant myself,” Epperson says, “but since I’m working with the people at ETH, I can do it.”

The two professors believe HPS will generate dividends not seen before.

“This approach runs between two different ways of understanding the universe instead of being just in one or the other,” Cohen says. “It can bring humanities and science students together so that they take ideas and understanding from each of the ways of thinking about the work, making themselves better at whatever they choose to do.”

For more information on HPS, visit the CPNS website, or call (916) 278-5135. For media assistance, call the University’s Public Affairs office at (916) 278-6156. – [Craig Koscho](#)