As I headed toward the shuttle that would bring me to the weeklong economics conference sponsored by the Ludwig von Mises Institute, the one phrase that ran through my mind was, "Let the nerd-fest begin." When I had received the letter of acceptance for the conference, I was ecstatic. Captain Barrows' Austrian Economics class had sparked a curiosity that had me bookmarking economic websites for future reading. But still, I wasn't sure what type of person would sacrifice a week of summer break for a series of daylong lectures and discussions. Naturally, I was a little apprehensive.

The Mises University summer conference is a program designed to increase one's understanding of an economic school of thought known as Austrian economics. Students around the world flock to Auburn University to attend this annual conference. The Austrian school is centered on the one basic fact that humans act. From there it takes logical steps to describe the workability of a free market, where human choice is the driving force. The Austrian school contends that this human choice is a unique and constantly varying act that cannot be measured as data for mathematical modeling.

Our mornings and afternoons were filled with a variety of lectures, and in the evening, we attended a two-hour seminar, where we discussed issues such as public finance, the business cycle, and free-market policy issues. Some of the lectures I attended covered such topics as monopolies and competition, Keynesianism, entrepreneurship, econometrics, the Great Depression, world markets, Abraham Lincoln, the Federal Reserve, and my favorite, the need (or lack thereof) for state-provided defense and security. These lectures provided differing perspectives, which often resulted in a heated debate between the students and the lecturers.

One of the lectures that I found to be very interesting was entitled, "The Rise, Fall, and Persistence of Keynesianism." It explored the actual man, John Maynard Keynes, and his philosophy. We learned about his vision of the economic, political, and spiritual world and how that eventually shaped what is known today as the Keynesian school of thought. This lecture, along with several of the others, gave me more insight into how and why economic issues developed the way they did.

The two-hour seminars allowed us an opportunity to discuss some of the lecture topics we had heard that day or any other issues that students wanted to bring up. One topic that most individuals agreed upon was the issue of privatizing the school system. In essence, the Austrian view is that a freely competing market can provide a better education than the government. Since I am the product of both a K-12 public education and a government-sponsored military undergraduate program, I was definitely the black sheep of the crowd.

After the lectures and discussions were over for the day, the group would meet at Mr. Gatti's for a social hour, where we continued our debates over pizza and beer. Sometimes a group of us would head into town for hamburgers and ice cream, while discussing the differences between Marshall's and Keynes' philosophies. By the end of the week, I realized that I had, in fact, become a contributing member of the nerd-fest. But I think William Kettemer, another Mises University participant, put it best when he said, "Yeah, we're nerds, but rock on! It's what we do."

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Department of Astronautics

FalconSat-1 Ready for Launch

USAFA’s first free-flying satellite, FalconSat-1, is ready for launch from Vandenberg AFB, CA. The spacecraft was tested over the summer and delivered to Weber State University in Ogden, UT, for integration with the other payloads on the mission. FalconSat-1 will share a launch with experiments from the Air Force Research Lab, NASA Marshall Space Flight Center, Stanford University, Arizona State University and Weber State University.

The entire payload stack with all six experiments was delivered to the launch facility at Vandenberg AFB on 28 Sept 99. All systems are go, and we’re awaiting the availability of the launch vehicle. Launch is currently projected for early January 2000.

Meanwhile, preparations for mission operations at the ground station located in CETF have begun in earnest. The cadet and faculty team is busy preparing operations procedures, contingency plans, training materials, and conducting software tests to ensure mission success.

Orbit Visualization Tool

The Astronautics department has been updating their DOS based-visualization software known as Orbit.exe to run in a windowed environment under Microsoft Windows 98 and NT. The new version, created by Capt. Erik Bowman, allows students to enter orbital elements or state vectors in a dialog box, display the resultant orbit in a 3-D graphical view, and manipulate that view via keyboard and mouse inputs in real time. Users may simultaneously view the satellite ground trace in a separate window, and can also load canned scenarios via text files created with an ordinary text editor.

Orbit.exe also contains some new features that the original version did not possess. Students can change the time scale, and view the effects of J2 perturbations on an orbit. Hyperbolic and parabolic orbits may now be viewed as well as elliptical and circular ones. Lastly, it allows maneuvering. A tangential burn may be performed anywhere on the orbit by entering a delta V. Also, transfers are calculated and displayed between any two circular orbits, with any desired orientation.

The new Orbit.exe is still a work in progress. The two major tasks that remain are to allow the display of intercepts and co-orbital rendezvous. The most ambitious task that Orbit.exe will eventually perform is to display an interplanetary transfer between any two planets in the solar system.

Department of Behavioral Sciences

New Research Laboratory for Behavioral Sciences and Leadership
Now Open For Business

On September 1, DFBL took delivery of the first phase of a new laboratory facility. The $1.1 million facility was designed by DFBL faculty members and will meet the research needs of the cadets and faculty well into the next century. The 14,057 square ft facility includes a state-of-the-art vivarium for housing the DFBL rat colony, a wet lab for psychophysiological research, a sensation/perception laboratory and an animal learning laboratory. There is ample room for conducting a wide variety of experimental research in human factors and other areas of human experimental research. All areas of the lab will be used for both research and teaching.
Publications and Presentations

34th Education Group

Publications:


Presentations:


Department of Aeronautics

Publications:


Department of Astronautics

Publications:


Presentations:


Department of Computer Science

Publications:


Presentations:


Directorate of Education

Presentations:


Publications:

REVAK, Marie. “Focus on Assessment...How’s My Teaching.” Colorado Mathematics Teacher, Volume 32, Number 4, August 99.


Department of Engineering Mechanics

Presentations:


Publications:


MURPHY, M., D. Jensen.

SHAKERIN, S., D. Jensen.

Department of Foreign Languages

Presentations:

SUTHERLAND, Richard L.

Publications:


Workshops:

VERANO, MIGUEL, Lt Col Richard Sutherland, Major Stanley Supinski, Capt Denio Alvarado, Capt Renaldo Canton: “The Web: Bringing Students and Teachers Together.” Workshop in the Networked Classroom Laboratory given by USAFA personnel for the American Association of Teachers of Spanish, Cooperative Learning and Technology, USAFA, August 1999.

Department of History

Presentations


Publications:


Department of Management

Publications:

BARKER, J. and K. Domenici.


HEPPARD, K. and S. Green.

Presentations:


Department of Mathematical Sciences

Publications:


Department of Physics

Publications:


Presentations:


Department of Political Science Publications:


Presentations:


# USAFA Research Points Of Contact

To learn more about research at the United States Air Force Academy, we encourage you to visit our Web site at www.usafa.af.mil/dfe. If you want to focus on a particular department or effort you might want to contact the associated Department Research Director. Each phone extension is preceded by (719)-333 commercial or 333 DSN. Each e-mail is followed by @usafa.af.mil

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