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DELIVERY AND CONTENT MATCHED IN NEW ENERGY COURSE

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"Practice what you preach." This is the philosophy of a new course and new delivery system at Kirkwood Community College. The course is entitled, "Energy Today" and is designed to look at concepts, problems and alternatives in the energy picture. Students do not only want facts about energy, they want solutions that can become part of their lifestyles. Satisfying their wants must involve teaching values. Values can be taught most effectively by providing role models and examples of efficient energy uses. Our delivery system does this.

"Energy Today" and a number of other courses at Kirkwood Community College are taught using a telephone type delivery system. Students from a seven county service area no longer have to drive to a central campus location to take the course. Now they can attend one of the seven telenet sites near their home. Using microphones, speakers and phone connections on the telenet system, there can be simultaneous interaction among any or all sites.

This delivery system also allows students to have guest speakers from virtually anywhere in the world. A phone call, placed by the instructor, initiates a lecture by a resource person, such as the director of DOE or an industry leader. There can be a direct question and answer session with this distant expert. In addition to interaction with a noted energy expert, the student has a powerful lesson that demonstrates that there are alternatives to long distance travel. The medium is the message.

Another unique feature of the course is the teaching team. "Energy Today" is team taught by a political scientist, a biologist and a physicist. The instructors can be stationed at several different telenet sites simultaneously. Students appreciate face-to-face interaction with each of the three instructors at least twice during the quarter. They have a mental picture of the instructor during the sessions when no instructor is on site. There is also benefit from hearing how three different instructors from three different disciplines interpret and deal with energy in their own professional and personal lives.

This team approach is integrated in the following course outline:

ENERGY TODAY TOPIC OUTLINE

I. Basic concepts
   A. Definition of Energy
   B. Forms of Energy

C. Energy Conversions
D. Laws of Thermodynamics
E. Energy in the Biosphere

II. Energy Sources and Utilization
A. Historical Perspectives — USA recent history
B. Survey of Current and Future Resources in USA
C. Energy Perspective for U.S.: Developments and Feasibility
D. Future Energy Resources
E. Energy Conversions
1. Electrical
2. Space Heating
3. Transportation
4. Animal and Human Muscle
5. Coal Gasification
6. Hydrogen Economy
7. Microwave Transmission
F. Thermal Pollution and Thermal Limits

III. Economics
A. Consumption/Production
B. International Economics/Politics For Fuel
C. Cost-Benefit Analysis and Life Cycle Costing for the Individual Home Owner and Consumer

IV. Politics
A. Government's Effect on Energy Lifestyle
B. Politics of Effecting Change
C. Politics Affecting Energy
1. Local
2. State
3. U.S. and Continental Shelves
4. International

V. Sociology
A. Planetary Citizenship
B. U.S. Lifestyle: Trends and Future Alternatives

A student will benefit from the course only if the material is actually integrated into his or her life. To this end, one fourth of the grade and one fourth of the class time is based on student involvement options. Student involvement can be in any *one* of the following options: a review of energy in the media (TV, newspaper, magazines), book reviews, a home energy audit, a project (ie. building a solar collector, measuring energy used in home appliances, surveying energy attitudes).

This integration of energy efficient delivery system, student involvement, and alternative role models in the teaching team gives the new "Energy Today" course a unique opportunity to "practice what it is preaching."