

STEM Task Force

Morehead State University (MoSU) Summary Report from Five Minute Oral Presentation
Representatives: Dr. Cathy Gunn and Dr. David Magrane

The following is a summary of the five minute oral presentation by David Magrane on December 19, 2006 on selected activities that are taking place at MoSU associated with improving Science and Mathematics in the region.

1) Appalachian Math and Science Partnerships (AMSP)- This NSF grant, functioning as a partnership between UK and several regional and private schools in Kentucky, Tennessee, and Virginia, seeks to develop goals of: reducing math and science deficiencies among college bound students; vertical alignment of curricula in science and math; develop classrooms of actively engaged students; provide professional development in pre-service and in-service teachers; and create an interest in science and math and encourage students to pursue careers in these fields. MoSU is an active participant in AMSP as numerous faculty members have developed collaborations with P-12 teachers to redirect curricula and introduce inquiry-based courses. Creation of a trust in collegial relationships has led to continuing professional development and mentoring of in-service teachers leading to rewriting assessments. One specific example is the association between Lewis County, MoSU, and UK. In collaboration with UK, Lewis County High School science teachers developed new activity-based labs and new elective courses for students. MoSU brought seniors and juniors to campus, exposed them to college lab activities, and provided information as to why they should consider science and math as a field of study.

2) Space Science Center/Program and Molecular Biology Lab- MoSU has established a Space Science Program and the acquisition of a satellite tracking system (which is in place) and a new space science building (which will break ground in March 2007) will push MoSU into the limelight as a place where students can become exposed to 21st century space technology and obtain the foundation of a career in space science. The University has also committed, and is currently developing, a Molecular Biology Lab for training students and providing skills for research to keep the best and brightest students in Kentucky. Both of these programs will provide students in eastern Kentucky with an opportunity to develop their backgrounds in essential areas of science and technology, and both have the potential to lead to entrepreneurial offshoots. In fact, the Space Science Program has already accomplished this.

3) Professors in the Schools- The Professors in the Schools is supported by CPE Action Agenda money and provides an opportunity for professors at MoSU to spend 45 hours (at least 25% must be time they are directing an activity) in the public school systems as resource collaborators. Professors in science and math have been very supportive of this program and have developed a presence in P-12 schools in our region. This program benefits the professor in that they develop a better understanding of “what goes on” at the secondary level.