

## **Building Partnerships to Better Prepare Students for Student Teaching and Service as Agricultural Science Teachers**

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### **Introduction**

Preparing students for successful careers as agricultural science teachers involves incorporating a variety of experiences into students' time on campus, so they are adequately prepared to teach a variety of high school courses. A report by Lee (2005) showed that a wide range of high school courses are offered, though most fit into 10 subject areas, with classes in agricultural mechanics the most widely offered. In [state], student enrollments for the 2002-2003 school year showed over 15,000 students enrolled in Introduction to Agricultural Mechanics. Another 12,731 students were enrolled in Agricultural Metal Fabrication Technology ([state] Education Agency, 2004). These enrollment numbers indicate a strong need for future agricultural science teachers to be well versed in agricultural mechanics competencies, especially those related to metal fabrication.

Concordantly, the research findings of Lawver, Barton, Akers, Smith, and Frazee (2004) indicated that metal fabrication is one of four topic areas that should be included in a teacher certification curriculum. However, skills in metal fabrication are a weakness in graduates from [a large southern university], as they do not have the opportunity to take metal fabrication classes on campus to enhance their expertise.

Looking at the number of high school students enrolled in agricultural mechanics courses, it is evident that these competencies are a necessity for a new graduate to be truly qualified to be an agricultural science teacher. To combat this weakness in the agriscience program at [a large southern university], the teacher preparation faculty partnered with a local community college to offer a condensed May-mester course in metal fabrication. This two and a half week course scheduled between spring and summer sessions was dedicated to preparing future teachers with competencies in welding and other metal fabrication skills.

### **How it Works**

This partnership required that a minimum of 10 students register for the course. The course was open to students attending the community college as well as those attending the university. Students registered with and paid tuition to the community college. The two and a half week course required students to meet on the community college campus

for eight hours a day. Metal fabrication competencies taught in this course included arc welding, mig welding, tig welding, oxyacetylene welding, and cutting and plasma arc cutting. This was a three semester hour course and once completed, the course then could be transferred to the university and count towards the university graduation requirements.

### **Results**

In May, 2005, 12 agricultural science majors from [a large southern university] participated in the program. The participants traveled to the community college every day and received instruction and hands on experience with a variety of metal fabrication tools and techniques. Participants in the course expressed satisfaction with the experience. One student shared that the main goal of the class was to build knowledge and confidence enough to teach welding basics to high school students and that goal was attained by all participants. These participants also recommended that the class continue to be offered for the benefit of future agscience majors.

### **Future Plans**

The response to the course offering was overwhelmingly positive. The students were enthusiastic about the opportunity to improve their welding knowledge and skills and be better prepared for their future careers as agricultural science teachers. This partnership has also benefited both [community college and a large southern university]. [Community College] has provided a course that agricultural science majors at [a large southern university] need and [the large southern university] has provided the students to make the course a success. Plans are in progress for offering the course again in spring 2006. The success of this course has also led to plans of partnering for a course in woodworking as well.

### **Costs**

Implementing this course did not constitute any cost to the university. Participating students were required to pay approximately \$300 for tuition and course fees. The costs to the community college are unknown, but registration for the course exceeded the minimum number required.

### **References**

Lawver, D. E., Barton, J., Akers, C., Smith, J. H., & Frazee, S. (2004). *Agricultural mechanics curriculum for agricultural science teacher certification: A Delphi study*. Paper presented at the 31<sup>st</sup> Annual National Agricultural Education Research Conference, St. Louis, MO.

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[state] Education Agency. (2004). *AGSC Course Enrollment*. [city, state]: Author.