



Appalachian State University is committed to strengthening the business, economic and environmental vitality of our region. Many academic and outreach programs are partnering with communities to advance entrepreneurship, provide professional training and educate the leaders of tomorrow. Some highlights include:

Energy Engagement

Appalachian is partnering with the Catawba County Regional EcoComplex in researching biodiesel crops and fuels through its Landfill Gas-to-Energy Facility. The complex has almost 200 workers employed in private companies located near its LEED Certified facility, and Appalachian's partnership provides critical research capacity to improve energy production and sustainability research. Appalachian has contributed more than \$1.65 million to the project through grants and state and federal funds. Catawba County has contributed approximately \$1.5 million. Appalachian's contribution includes \$300,000 in federal funds brought into North Carolina.

International Experiences

Appalachian is ranked third nationally among comprehensive master's institutions by the 2012 Open Doors Report for the number of students studying abroad for credit during the 2010-11 academic year. Appalachian also is ranked third nationally for the number of students who studied abroad for credit on short-term, faculty-led programs. During the 2010-11 academic year, a total of 886 students studied abroad for academic credit in various programs. This number is the largest ever at Appalachian and demonstrates the university's efforts to prepare students for a global economy. In order to remain competitive at the local and national level, businesses need students who have experience in the countries we compete against.

Health and Human Performance Research

Human performance research has received \$7 million in external funding since 1990, 20% of which has been directed to employment in Western North Carolina. One major focus of this research at Appalachian is to find ways to increase the community's overall health, thus reducing health insurance premiums and absenteeism in the workplace. Research areas include:

- Interventions to reduce childhood obesity
- Blood pressure reductions to decrease insurance and pharmaceutical usage
- Blueberry ingestion to destroy cancer cells and improve cardiovascular functioning
- Exercise among healthy adults that results in a 43% reduction in the number of sick days compared to sedentary adults

New Academic Programs

Appalachian's MBA program has concentrations in sustainable business and international business. Students develop practical skills to respond to domestic and global business environments and an appreciation for diversity and multiculturalism. These students travel abroad during their course of study through a required international seminar. The MBA program also has a required practicum component that places students in area businesses. The MBA has a part-time program in Hickory, which allows professionals to work during the day and attend class two evenings a week with completion in two years. Appalachian's Professional Science Master's degree allows students to pursue advanced training in science or mathematics, while simultaneously developing workplace skills highly valued by employers. Appalachian's engineering and physics PSM programs provide the labor force to meet Hickory's needs in controls and systems automation, microscopy and materials, science, engineering and technology management. The curriculum consists of both science and business courses.

Emerging Areas of Study

Appalachian's new fermentation sciences program within the Department of Chemistry is the first of its kind in the Eastern United States. Students are engaged in science-based curriculum with applications relevant to careers in food and beverage production, drug discovery and pharmaceuticals, natural products and human nutrition, basic biotechnology research and development, and processing of agricultural waste streams into potentially value-added products. Smaller industries, such as the craft food and beverage businesses, represent family businesses that can meet the demands of local and regional markets while stabilizing local communities. The university is planning a master's degree program in nursing education, which will train students to teach nursing at the community college level. The demand for nurses is expected to continue to increase steadily, and this need cannot be met without additional teachers to train them.