In the summer of 2007 the Agricultural Research Program will once again give a select group of high motivated high school juniors and seniors the opportunity to get a head start on college. Students selected for the 2007 RAP will work directly with scientists as part of an accelerated study program that will also include biotechnology and other cutting-edge life sciences.

APPLICATIONS ARE AVAILABLE ONLINE ONLY @ www.ag.ncat.edu
APPLICATION DEADLINE Feb. 16

RAP time 2007
June 24 – July 20
The Research Apprenticeship Program — RAP — at the School of Agriculture and Environmental Sciences, North Carolina Agricultural and Technical State University, Greensboro, NC

North Carolina’s biotechnology industry is one of the nation’s largest, and demand for scientists and skilled technicians in the field is high. Twelve Johnston County middle school teachers visited SAES labs recently to learn how to begin educating future scientists in biotechnology. They toured labs, heard presentations and received hands-on training in training in DNA extraction and aseptic practices.

Alexa Camione, a 7th and 8th grade teacher from Currituck-Holders School in Zebulon, said the hands-on approach was effective.

“Unless students can see it, touch it and feel it, it doesn’t mean anything. So this gave me a lot of ideas for planning how to bring biotechnology into the classroom,” she said.

The visit represents the latest in an ongoing relationship between SAES and Johnston County schools, which has been facilitated by Bill Clayton, who is an Aggie, retired Cooperative Extension agent, and volunteer with the school system.

Biotechnology is mainly concerned with making patentable, commercial products from living cells, tissues and microorganisms, and agricultural research universities such as N.C. A&T are at the forefront of the field. Some of the products that are being invented in biotech labs around the world include new and improved medicines, nutritional supplements and food crops.

In the SAES, biotechnology is integral to many of the natural resources and animal sciences majors, and a certificate program in biotechnology allows students to explore the field in more depth. (See http://www.ag.ncat.edu/biotech/.) North Carolina’s 358 life sciences companies and 49,000 biotech jobs place the state third in the nation in an industry that the North Carolina Biotechnology Center predicts to grow at 8 percent to 12 percent a year.

North Carolina A&T State University
School of Agriculture and Environmental Sciences

Dr. M. Ray McKinnie, Associate Dean
Dr. Carolyn Turner, Associate Dean
Agricultural Research Station
Dr. Alton Thompson, Associate Dean
Academic Programs
Molly Hall, Brad Lael and Kathryn Picotte have taken a totally online route to the commencement line. With completion of their student teaching during fall semester, they became not only the first students to complete the SAES’s 2 + 2 Program — they became the first students in the North Carolina and the University of North Carolina system to receive teaching licensure as well as bachelor’s degrees through an online program.

The foundation for the 2 + 2 Program was a $115,000 grant from the UNC system, in 2002. It was used to develop online courses that made it convenient for students receiving associate’s degrees in horticulture, turfgrass management and other agricultural studies to complete their bachelor’s degrees through an online program.

The SAES alumni homecoming put the online gateway to SAES courses, and steering through agreements with several North Carolina community colleges. By spring semester of 2006, the 2 + 2 Program was leading the way in SAES distance education; with 15 online courses and more than 22 students enrolled in the program.

Aston wanted a program that would create opportunities for community college graduates, ease the state’s teacher shortage in agricultural education at secondary schools, and give students with a foot in the workforce a chance to pursue higher education without walking away from a secure job.

The trio of SAES students who will be receiving bachelor’s degrees and finishing up the requirements for teaching licensure in December of 2006 personally chose these objectives to the letter.

Molly Hall, 25, attended Surry Community College (N.C.) — just down the road from her home in rural Yadkin County — where she received her associate's degree in livestock and poultry technology.

Hall arrived at Surry with an academic background that is becoming less and less rare: she was home-schooled. The two years that she was a full-time student at SCC, Hall also worked at a riding stable. Her course work meshed nicely with her job in the equine industry, as she was working on a degree in livestock and poultry technology.

Following graduation, Hall took a non-agribusiness job. But when a younger sister attending SCC told her about the 2 + 2 Program (a discovery resulting from a visit Alston paid to the SCC campus), Hall quickly decided that it was too good of an opportunity to pass up. Although she doesn’t have any definite career plans at this point, she is confident enough that her bachelor’s degree and teaching credentials will give her new options when she is ready to pursue them.

“I’m going to take a break until I figure out exactly what I want to do,” says Hall.

As the father of both a newborn and a 4-year-old, Brad Lael will not have the luxury of a new break now that he has his teaching license. Lael is another December graduate of the 2 + 2 Program. He is a Catawba County resident whose ticket for the SAES’s online bachelor’s program was an associate’s degree in turfgrass management from Catawba Valley Community College three years ago. Lael’s interest in the turfgrass profession started when he was working at a golf course when he enrolled, and continued to hold onto his job while working on his associate’s degree. The 2 + 2 Program brought to light another natural fit. Brad Lael in front of a classroom of high school students. He had more than one job offer before completing his teaching student teaching.

The third member of the pioneering trio of 2 + 2 graduates is Kathryn Picotte. After graduating from high school in her mid-40s and having been teaching for several years at Abundant Life Christian Academy in Hillsborough when a growing family prompted her to search for a new career. With the arrival of a seventh child, Picotte’s modest salary at Abundant Life was not making ends meet. Picotte began looking around the Internet for a program that would allow her to licensure and a better paying teaching job, the SAES’s 2 + 2 Program caught her eye because of the jump start she would get for an associate’s degree in agronomy. She received her bachelor’s degree at the State University of New York at Morrisville in 1997. Picotte worked in a greenhouse after receiving her agronomy degree and moved from that career to daycare before she began teaching.

Completion of the 2 + 2 Program qualifies her for better paying positions and gives her some career flexibility that is very important for a mother of seven.

Extension part of the equation for solving digital division

The Cooperative Extension Program’s Farmers Adopting Computer Training (FACT) program works with not-for-profit agencies to help farmers and other limited-resource users hone their electronic literacy.

The Cooperative Extension Program gives computers to farmers in the FACT program. Not-for-profit agencies help in this effort, with the Triangle United Way in Research Triangle Park being the most recent agency to support the FACT program — providing 50 refur-