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To: Dr. Greg Straughn, Dean, CAS
Members of the University Undergraduate Academic Council
ACU Faculty

From: Faculty, Department of Agricultural and Environmental Sciences

Date: February 9, 2015

Re: Response to Restructure of Agricultural and Environmental Sciences Proposal

It is the reasoned conclusion of the A&E faculty, staff, alumni, friends and students that the proposal to close the department and move two major tracts to the Biology department is an illogical and inappropriate decision for the following reasons:

- Closure not a Restructure: As the proposal has progressed it is not a restructure but a closure of an academic program. The creation of new degrees that are similar will not appeal to the same student population.
- Enrollment is Increasing: ACU's enrollment has been stagnant, yet the **enrollment in A&E has been growing**. This mirrors what is happening in other Ag colleges across the state. With high school student interest in the discipline at an all-time high as indicated by FFA memberships, this trend is likely to continue. Job demand is projected to continue to be higher than the number of graduates produced nationwide. (see attachments 1 & 2) This will also continue to attract students to the degrees. Without the A&E department there will be no incentive for these prospective students to consider ACU.
- Distribution of Majors: Changes in distribution of majors has occurred due to the changes in external demand and internal policy decisions. The announcement of the closure of the Agribusiness program in 2011 has greatly decreased the number of those majors even though the degree was not closed. Recovery has been occurring slowly and several have already been admitted for next fall. Increased demand for animal science programs has increased the percentage of those majors while not significantly decreasing the number enrolled in other majors.
- Misconceptions Concerning Degree Tracks: All majors and tracks take the same A&E core classes. The department has repeatedly redesigned its programs to develop efficiencies in

degree offerings and would continue to do so in the future. This seems to have created the impression that we are offering too many undersubscribed tracks. The tracks are designed to supplement each other in ways that do not demand additional courses or faculty while providing alternative paths to graduation.

- Last year the environmental science tracks were revised and approved by council. These adjustments will require all environmental science students to take the same environmental science core in the department. Additional courses needed for specialization in the tracks are taken from courses offered in other departments. No additional A&E courses are required to offer the additional tracks. These changes will reduce the likelihood of small enrollment classes, but this has not yet been realized since this year's freshman will be the first to follow these revised tracks.
- Similar adjustments were being prepared this year for the Animal Science tracks. All ANSC students take the A&E core and the same ANSC core classes. Very few additional courses are required for the tracks.
- Agribusiness majors take the same core classes as all the other tracks and additional degree requirements from courses already offered in COBA. Any additional A&E classes required are chosen from those taken by other tracks in ANSC and ENVR. No classes are offered in the department that are only required of the AGRB degree plan.
- Therefore, closing tracks would not reduce courses required but rather reduces the attraction of students with more diverse interests. The result of this design is to make the emphasis on total enrollment in the majors rather than enrollment in complimentary individual tracks. Completely eliminating ANSC courses will reduce the attraction of all students who have interest in large domestic animal curricula, the predominant enrollment in the department.
- Faculty Reductions: The primary cause of reduced faculty is the lack of approval for filling vacancies. The ability to attract qualified individuals for specific positions was being addressed and multiple individuals have expressed interest in the recent vacancies. There are pressures on current faculty, but they are committed to continue the quality level of the programs until solutions can be found or afforded.
- Reliance on Adjuncts: We have been blessed with very qualified individuals who have served in those roles. The scramble only resulted from having to fill multiple vacancies when rehires were not permitted and last minute resignations occurred. We have been fortunate to identify and hire dedicated individuals to fill those vacancies and could manage the degree offerings very well if the hiring freeze were only temporary. These adjuncts are committed to filling these roles until permanent solutions can be found to cover the classes. There are no inconsistencies associated with a variety of instructors moving in and out of the program. During this situation the department has experienced its recent growth. It is my understanding is that Biology is looking to hire some of the same adjuncts to teach in their degree proposals. That leaves the question of how this proposal is addressing that issue.
- Stewardship of Resources: A&E strongly supports the need to be good stewards of our resources since sustainable use of resources is an integral part of its curriculum. This

proposal does not clearly show it will improve that stewardship or sustainability. Even this year with reduced offering the department has sold over 2000 credit hours earning the university over \$2 million in revenues while having a budget of just over \$300,000. In addition the department, through the generosity of its supporters, has accumulated a significant endowment for scholarships and support of programs. How are we being good stewards of resources when we reallocate those resources to support programs they were not given to support?

- Why Biology: It is true that many schools offer a pre-vet track in their biology departments, but the reality is that those programs are very different from the tracks we offer in A&E and therefore attract very different students. Moving the two highly subscribed tracks to Biology completely disregards the curriculum designs discussed above. Providing a degree in Agriculture is truly an ACU distinctive which has been very advantageous in recruiting. Only a few private, independent universities share this distinctive and fewer than that are religiously affiliated universities. Many of our students are here because they found ACU as an institution that offered Agriculture in a Christian culture. These students can find many alternatives when choosing between schools offering the degrees in a Biology context. Even though we do indeed have key faculty in the Biology department with experience and training in ecology and environmental science, there is no basis to assume that two of the important aspects of the A&E degrees will be maintained. Those are the emphasis on resource management in the Environmental Science degrees and the emphasis on large animals (i.e. animal science) in the pre-vet degree. These are the main recruiting emphasis in our program. I have already been contacted by several prospective students asking me how they could pursue their large animal interests in the new structure. Most of our Wildlife and Natural Resource majors have primary interest in managing resources for wildlife in an agricultural system.
- Academic Disciplines Essential to Sustainability of Mankind are Discounted: The world is facing a crisis. By 2050 the world population is expected to be between 9 and 10 billion. The greatest challenge will be to provide a sustainable food supply to support that many people. There will be a vital need for graduates with the expertise to lead and serve in the effort to meet this challenge. ACU is abdicating the opportunity to train graduates who would be able to fill those roles. Graduates who will serve not only in the business and production sectors but who will also be able to support mission efforts around the world.(see attached)
- ACU Location: Much has been said about the disadvantages of ACU's geographic location, yet its location is an asset to the A&E program. Students in the program come to a campus that is located in an environment conducive to their academic pursuits rather than looking for more urban settings.
- Valuable History, Tradition and Culture Lost: The department has a 70 year history of exemplary service to the mission of ACU. Young men and women have become Christian leaders and servants around the world in their families, churches, communities and governments. Unlike many perceptions of the program, its primary purpose is not to train

individuals to become involved in production agriculture (i.e. farming and ranching). Very few of our students come from traditional Ag backgrounds anymore and even fewer graduates go into production Ag careers, although that is certainly a possibility. They are educated to have the technical knowledge and skills necessary to serve as professionals and technical consultants in Christian stewardship of sustainable agricultural and environmental systems throughout the world. As applied science professionals they are employed in professional careers in the food and environmental industries and other related areas. Our students are involved in undergraduate research and have made award winning presentations at the ACU Research Festival, State, Regional and National meetings. As a result, the department and ACU are held in high esteem in Ag and Environmental circles. Many of our graduates pursue masters and Ph.D. degrees as well as DVM's after graduating from ACU. Our graduates have and are serving as technical professionals in local, state, national and international government agencies, nonprofit organizations and business organizations. They are nutritionists, reproductive physiologists, geneticists, veterinarians, professors, research scientists, environmental compliance officers, environmental reclamation officers, wildlife biologists, game wardens, Bureau of Land Management administrators, Natural Resource Conservation Service administrators, soil conservationists, water resource consultants, range conservationists, zoological facility managers, public health inspectors, meat inspectors, feedlot managers, dairy consultants, equine performance specialists, pharmaceutical and agrichemical consultants, extension agents, physician's assistants, attorneys, loan officers, bankers, entrepreneurs, ministers and missionaries. Even now we have many requests from mission organizations that need our students to assist with sustainable food outreaches in different mission points. (See attached, 3 & 4)

- Out of Step with Academic Trends: Many universities, such as Duke, are incorporating sustainable agriculture into their curriculum. (See Attached, 5)

Attachments:

by Taking Stock Contributor



Good news for students graduating with animal science and agriculture degrees this year! According to an article by *Cheat Sheet*, a *USA Today* content partner, these degrees are among the top 5 highest paying of 2015.

The article cites five college majors with the highest earning potential for 2015 grads:

- 1) Engineering
- 2) Computer science
- 3) Math and sciences
- 4) Business
- 5) Agriculture and natural resources

The article lists both projected average starting salary and average lifetime earnings for the five college majors. For example, students graduating this year with an agriculture or natural resources degree can expect to earn a starting salary of \$51,220. That's about \$11,800 shy of an engineering major's projected starting salary, but still "much more" than what the average college graduate would start at, according to the article. Lifetime earnings for these grads are projected to average \$2.6 million.

The average starting salary for math and sciences majors is \$56,171, with an average lifetime earnings of \$2.6 million for science grads and \$3.1 million for math grads.

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Read ["The 5 highest paying degrees of 2015."](#)

Ag careers: Needed more than ever

by Taking Stock Contributor



A recent article at the *Dairy Herd Management* website looks at “[8 reasons why ag careers are needed more than ever.](#)”

The article, written by Alyssa Schwarck, a marketing intern with AgCareers.com, cites these 8 reasons to choose a career in agriculture:

1. **Global population growth.** By 2050 the world’s population is projected to hit 9 billion people. The population is going to rely heavily on agriculture be able to feed and clothe the world.
2. **“New” generation of agriculture.** Baby boomers in key agricultural leadership roles are retiring at vast rates, leaving many positions empty.
3. **Job diversity.** Within the last two decades, agriculture has expanded and become so diverse, giving job seekers a wide variety of careers from which to choose.
4. **Shortage of college graduates in agriculture.**
5. **Industry growth.** The industry is growing at a fast pace, and there is high demand for qualified employees in all aspects of agriculture.
6. **Technology advancements.** Job seekers with the right skills and education are needed to develop and grow agricultural technologies.
7. **Increased salary.** To remain competitive and to secure the best talent in the industry, employers have been consistently increasing salaries. More on salaries in agriculture can be found in this recent [Taking Stock article](#).
8. **Rewarding.** There are many reasons why working in an agricultural related field is rewarding.

I am Eric Aizenofe, a master of Divinity student (missions track) at the Graduate School of Theology here at ACU. I have been into missions since 2006 across West Africa, starting with the Way-Maker Missions, whose director (my brother, mentor and partner) was recently killed by Islamic extremist on January 23rd, in north eastern Nigeria. I want to use this opportunity to thank everyone who commiserated with me during my period of mourning.

My attention has been drawn to some information, about the university doing away with Agriculture and environment department. I am writing to suggest that you rethink this decision, for the sake of the gospel. Having worked with various missionaries and mission fields, one problem is dominant. I observed that, Western missionaries have continued to engage in missions that do not fit into the African context. The gospel is preached, Churches are planted, but the people's main source of live-hood, their environment and their agriculture are the least on the minds of the missionaries. Thus the people remain poor believers, when the poverty persists, some go back to their old ways, nullifying all the work that has been done.

I spoke with a senior missionary with the pioneers Africa recently, he works in the northern part of Togo. Their farmers are constantly having poor yields every harvest season, and it is becoming frustrating for them. This is because the soil/land is exhausted, and they do not know how to improve it. Some years ago, two tribes were locked in conflict around Mali, because their source of water had run out due to climate change. On the mission field where I started from in 2006, the mission school population is now close to 200, and they rely on firewood to make their meals. Sometimes, the wood are difficult to come by due to uncontrolled felling, and they have to walk for miles in search of this source of energy, when they can use the children's waste and animal waste to produce bio-gas (methane) used for cooking.

To take the gospel to the unreached in this dispensation, will involve preaching the gospel, and teaching the people how they can live sustain-ably. Since arriving at ACU, I have sought practical knowledge and insights from the agriculture and environment department, to help improve the lives of missionaries and converts on the various fields in West Africa. I am planning to set up a Christian institute for environmental studies in the southwestern part of Nigeria that will teach missions alongside sustainability, to the developing world, and reduce dependence on western missionaries and churches. The institute, I hope, will be affiliated with the Bible department and the Agriculture department of ACU, to actualize this vision.

The Agriculture and environment department is important as we carry out the great commission. It has so much role to play, especially in Africa, where there is limited knowledge on sustainability. Many missionaries and schools are suffering in the midst of abundance provided

by God in their environment, because they lack the knowledge. I believe that department will do better, if it is encouraged and better equipped. Students' enrollment can also be improved by creating more awareness regarding the program, as well as on the environment among high school students, and possibly starting a graduate program.

I therefore implore you, that as you make this decision, may you be guided by God to consider the impact the department could have on missions in the future and not only the current challenges that the department is saddled with.

God bless you.

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If I asked you which is the most important Department at ACU, you would say the Bible Department, and I agree. The university was built on training students to meet the great commission of spreading the gospel to every creature. And what is the second most important department at ACU. You might say it is the one you were trained in or involved in or the one which helps support yours. But when we look at Jesus and his mission here, it was first to train his 12 close disciples to spread his message after he fulfilled his Fathers will. But the second was to care for His children and those in need. To help the hurting, the hungry and show compassion on those in need. His will can best be explained in His words on Judgment when he divided the sheep from the goats and invited those in who had given Him a drink, fed and clothed Him. When asked by those when they had done it, he replied that when they had done it for the least of his children, they had done it to Him.

Recently Anabel was recognized as a student that had this compassion, passion and zeal to help Jesus's children get a drink of clean water. There are other students at ACU that have that passion and others coming that are seeking how to meet those needs as well as share the Living Water with Gods creation. Which department can fulfil those needs? None better than the A&E Department.

A former student that was one of the closest to Anabel is Alex Wann. After graduating from ACU in the A&E Department he went and got a master's degree in water at Wyoming. I believe he carries Anabel's heart in his. He has given a cup of clean water to the victims of the typhoon in Thailand, drilled water wells for those in need in Columbia, helped build clay containers with those in Africa to collect rainwater so the families do not have to carry as much water to their homes and recently helped build facilities in Liberia for those caring for the victims of Ebola. I would recommend that he be the first and next person to be considered for a teaching position at ACU in the A&E Department. And that the department consider a master's degree in

sustainability to help those like Anabel and Alex get the training to fill their needs in preparing to provide food, water and clothing to the least of those that belong to Jesus.

The other group that came to Jesus had not provided Him a drink or food or clothing. I do not want to be the one that after over 75 years of training students in A&E, to say that we do not need to train you to provide the basic needs of life to His children. How do we answer when asked by Him? Which other department will train those students that have that passion or heart to care for the environment, water needed here and around the world, or how to grow food In the time it took to read this another child has died from a water born disease or is in mourning over the loss of a sibling or parent or is home and cannot go to school because they are too sick. There are over billions drinking contaminated water, hungry and lack proper sanitation.

The A&E Department needs help, support and guidance from those who first hand see and understand the needs of so many people here in the USA and around the world. So PLEASE, PLEASE, help the A&E staff and students to fill their mission for His children. Thank you. Billy Kniffen Class of '71 in A&E.

By Anne Blythe



Rick Johnson, right, assistant vice president of student affairs for housing, dining, and residence life at Duke University, tries pork smoked by Ed Mitchell, center, and his son Ryan Mitchell during a special food event Sept. 18 at Duke.

TRAVIS LONG — tlong@newsobserver.com | [Buy Photo](#)



DURHAM — A slight breeze rattled the gate to Duke Campus Farm.

The rising sun dried dew droplets on the kale, beet greens, arugula, collards, carrots and other crops, flowers and fruit trees growing on the one-acre plot about five miles from the Duke University campus.

What is being cultivated in the rows of rich soil inside the rattling gate is much more than the fall crops destined for the campus food service or Community Supported Agriculture (CSA) boxes.

At Duke, UNC-Chapel Hill and other research and liberal arts campuses across the country, students' interest in food now extends beyond what's being offered on the menu to what's available on the syllabus. Many students are curious about how what they eat gets from the farm to the fork – and want to explore the environmental, economic, historical, cultural, social justice and public health issues along that path. And they don't mind getting their hands dirty to acquire firsthand knowledge that until recently was largely the province of agricultural schools.

Campus farms are proliferating along with a new breed of farmer. Americans in their 20s and 30s with few family ties to the business of agriculture are settling on small plots and pursuing dreams of becoming organic growers or small-scale livestock farmers. Some are drawn by the romanticism of homesteading. Others are fueled by a distaste for the corporate world.

The Sustainable Agriculture Education Association estimates that at least 55 campuses have student farms and gardens.

"It is definitely trendy right now," said Charlotte Clark, an environmental sciences professor who taught the class that created Duke Campus Farm in 2010. Part of its mission is to place foods and crops at the heart of education. Professors use the farms to supplement traditional classroom teaching.

Clark's students spent fall semester designing a garden from which fresh herbs will be harvested for culinary and medicinal purposes.

Carl Heinz, a junior from Chicago attracted to Duke's environmental studies and science programs, was among four students working on that design.

Like other students who find ways to make hands-on experiences part of their course of study, Heinz gets academic credit for his work at the farm. He says he is also learning practical skills important to his career ambitions.

"I'm interested in sustainable agriculture and landscape architecture," he said. "I'd like to find ways to incorporate food into landscape architecture."

Beyond the practical, there is a growing sense among students and faculty across the country that research universities and liberal arts programs can and should play a role in reshaping American agriculture.

Guides for prospective college students now list campus farms among other popular amenities. Oberlin College in Ohio, Carleton College in Northfield, Minn., Washington University in St. Louis, and Hampshire College in Amherst, Mass., are just a few campuses that have farms.

Each farm has a different mission. Each school offers its own experience.

Taste of the earth

At Duke Campus Farm, where heirloom peanuts have been harvested recently and the summer's bounty of peppers was put up in jellies and hot sauces, dozens of students and community volunteers meet regularly for workdays.

Saskia Cornes, farm manager and program coordinator, started work at Duke in May after studying and teaching about sustainable agriculture at Columbia University in New York City, the University of San Francisco and the University of California at Santa Cruz.

"We're not a farmer training program," Cornes said. "We try and demonstrate best practices and demonstrate models that will bring positive changes in the ways we grow, eat and think about food."

Since its inception, Duke farm has provided thousands of pounds of produce each year to campus dining halls, the campus farmer's market and to employees, students and community members who receive boxes of produce as CSA members.

The farm also led to collaboration on some unusual events.

Earlier this fall, Thomas Parker, a visiting professor from Vassar College in Poughkeepsie, N.Y., put on a program that offered Duke students a "goût de terroir," or taste of the earth.

Parker and Duke faculty members from Romance Studies, Women's Studies and Classical Studies set up a smokehouse on the main campus. As they prepared such fare as goose pastrami, pecan-smoked pigeon and more for the tastings, the campus farm supplied greenery and sweet potato leaves for the smoker.

As part of the culinary experiment, students tried cheeses that smelled like stinky feet because they likely had some of the same bacteria. That project led to more unusual creations – gin made with ants, fish sauce made with crickets and wild orange marmalade.

The idea was to get people talking about food and food politics.

‘Explosive’ interest

In late October, Mary Eubanks, an adjunct professor of biology, spoke to a group gathered at the farm about her work breeding organic hybrid corn and the crop’s importance in the global food system.

Duke Campus Farm is a test site for her research. There, students and volunteers get a firsthand look at her work to improve food security in places such as Sudan, where farmers have grown her corn through a partnership fostered by Duke Divinity School contacts in the Nile Valley.

Eubanks enjoys talking to students about her work. Students often shift the talk to the hot-button environmental and political issues surrounding genetically modified foods, or GMOs. Eubanks is not growing modified corn, but students turn to her for a deep discussion about GMO foods.

While proponents point out that genetic modifications can guarantee farmers a crop in times of drought, floods, disease and insect infestations, critics worry about the potential health risks that have shown up in livestock feeding on GMO crops. They note that genetic modifications call for biotechnology that can put too much power in the hands of corporate agribusiness – in conflict with the interest in sustainable agriculture and regional food systems that is spurring interest in college food studies.

“It’s exciting that these programs are coming up,” Eubanks said.

The excitement crosses campus borders. Students at Duke can take classes at N.C. State University in more traditional agricultural programs or at UNC-Chapel Hill, which has a campus garden near downtown where students, faculty and community members grow fresh produce.

Marcie Cohen-Ferris, an associate professor in UNC’s American studies department, said a meeting was held recently to talk about a universitywide collaboration on food studies that goes beyond cooking, farming or even learning the restaurant business.

UNC students want to learn how to shape policy and lead research that addresses a critical need for more sustainable food systems, Cohen-Ferris said. They want to study food as it relates to culture, environmental studies, sociological issues, public health and more.

“The interest is bigger than it’s ever been,” Cohen-Ferris said. “It’s explosive.”

Food as a great uniter

Many educators and observers expect community gardens and farms to crop up more and more as students seek hands-on learning before taking their interests to communities that

could benefit from small farms, markets, research and other ventures borne from this evolving curriculum.

Lora Smith, who is finishing up her graduate work at UNC under Ferris, gravitated to the folklore program's food courses because they offered an intersection between two of her key interests: how food relates to her family history and to social justice movements.

Smith and her husband, Joe Schroeder, see food and small farms as economic engines in rural areas where some of their community organizing ventures have taken them.

They plan to homestead on land they own in Kentucky and hope to build a model that might offer others in the impoverished coal country ideas for a new economy.

With one small child and another on the way, Smith and Schroeder will use knowledge they've gained as students and organizers to grow their own food their first year while they telecommute to jobs outside Kentucky.

Soon, they hope to be growing enough on their land to take extra to local farmer markets, all the while building community.

"Food," Smith said, "is one of those great unifiers."

Read more here:

<http://www.newsobserver.com/2014/12/27/4430052/foodie-u.html#storylink=cpy>