Each fall, college freshmen leave their homes to come to the University of Kentucky with the goal of furthering their education and making a better life for themselves.

In the College of Agriculture, Food and Environment, students refine skills that will help them in their career or find talents and passions they never knew they had. Some develop into exemplary leaders with a heart for giving back. Others develop lofty goals for changing the world. CAFE is where students get the tools they need to positively impact tomorrow.

“With the mentorship of world-class faculty, students throughout our college are using their studies to solve complex 21st century issues,” said Larry Grabau, associate dean for instruction. “From dinner tables to hospital labs, the young leaders profiled in this story are improving lives across the commonwealth and beyond. We are proud to foster such a rich, family atmosphere where students can realize their potential and make a lasting mark on the world.”

Angela Wei: Future Physician Scientist

It was during a conversation with CAFE’s agricultural and medical biotechnology advisors, entomologist Bruce Webb, plant pathologist Michael Goodin, and academic coordinator Esther Fleming, that Angela Wei first learned she could combine her passions for mathematics and science into a fulfilling career.

At the time, Wei, now a junior with a double major in agricultural and medical biotechnology and mathematics, was torn between the two.

“I’m really glad I joined the ABT major, because I don’t think I would be on the same path,” she said. “We have such great faculty and a great support system.”

The Lexington native was familiar with UK before becoming a student. A graduate of Paul Laurence Dunbar High School’s Math, Science, and Technology Center, Wei has conducted research under the advisement of Dr. Peter Nelson in UK’s Sanders-Brown Center on Aging since she was a high school junior. Nelson’s lab studies a disease similar to Alzheimer’s that results in the deterioration of the brain’s hippocampus. Wei was listed as a co-author on a research paper before ever entering college.

“She is intellectually curious and learning a lot of different experimental methods,” Nelson said. “She now has her own experimental project, which is progressing nicely. She is a strong thinker in her own right and works well as part of the team.”

Wei’s lab experience has earned her competitive summer internships. She spent the summer after her freshman year at Indiana University-Purdue University Indianapolis as part of the National Science Foundation’s Research Experience for Undergraduates. There, she tried to determine what happens in the body when dopamine release is hindered by antidepressant drugs that are reuptake inhibitors.

The summer of her sophomore year she spent at Dartmouth University, studying how DNA methylation is associated with breast cancer risk factors. These experiences are stepping stones toward fulfilling her dreams of a career in cancer treatment and research. Wei plans to pursue a doctor of philosophy degree as well as a medical doctorate, so she can do both.
Fabian Leon: Future Hunger Fighter

UK junior Fabian Leon plans to end world hunger. Leon’s work has repeatedly gained the attention of The World Food Prize Foundation. He was selected for the foundation’s Global Youth Institute and received its prestigious Borlaug-Ruan International Internship while still a high school student. That opportunity landed him in Peru studying sweet potato viruses at the International Potato Center.

Since coming to UK, he has received the foundation’s prestigious Wallace Carver Fellowship. He spent summer 2017 at the U.S. Department of Agriculture’s National Laboratory for Agriculture and The Environment studying how climate change factors affect row crops and also agronomic principles farmers can use to manage crops that are facing various stressors.

While the Nicholasville native did not grow up on a farm, he developed his passion for agriculture from his parents and on his family’s annual visits to their farm in Mexico. He got involved in FFA in Jessamine County early on to learn more about agriculture.

“It worked out really well that UK had the perfect major for me,” said the agricultural and medical biotechnology major. “It is exactly the field I have wanted to get into since middle school. I have been capitalizing on every opportunity they give me.”

During his freshman year, Leon joined Professor Michael Goodin’s plant pathology lab and began studying protein interactions for a strain of the potato yellow dwarf virus.

“It was clear very early on that Fabian excels at whatever activity he participates in,” Goodin said. “Within a year of joining my lab, he had accomplished enough to be a contributing author on a publication in a top-ranked virology journal.”

Not only does Leon excel in research, but he is a leader. Leon is the national parliamentarian for Minorities in Agriculture, National Resources and Related Sciences, or MANRRS. He is also president of UK’s Latino Student Union and a college ambassador.

He plans to pursue graduate school and become involved with plant breeding to help develop resistant varieties of crops that are staples around the world.

Jaeana Gates: Future Inspiration

When Jaeana Gates started college, she wasn’t sure if she was up to the task, but she wanted to try. Now, the first-generation college student is not only going to graduate, but she has developed into a multitalented leader.

Gates’s story begins in Christian County. The youngest of three children born into a military family, Gates learned early to make the most of opportunities. That attitude served her well in college.

“She is, of course, an excellent student. However, what I think makes her stand out is her genuine love of the learning process,” said Jessica Houlihan, lecturer in the Department of Dietetics and Human Nutrition and Gates’s advisor. “She asks thoughtful questions and has a curiosity that drives her success as a student.”

A human nutrition major with two minors, Gates wants to use her knowledge to help people live better quality lives. She has a scholarship and minor in music performance—she’s an accomplished trumpet player, and has participated in several musical groups on campus. She also has a minor in plant and soil sciences.

“Music, nutrition, and the environment are all things that can be therapeutic,” she said. “They are also something that everyone can relate to. I enjoy being able to share the gifts that I have with others and hopefully give them a moment of joy in their lives.”

In addition to her studies, Gates is a national MANRRS officer, serving as the Region III undergraduate vice president.

“MANRRS has definitely pushed me to limits that I never would have pushed myself to,” she said. “My first semester freshman year, I had 19 credit hours, but MANRRS helped me stay motivated.” (continued page 16)
At UK, Gates has earned some high profile internships including one in integrative biosciences at Tuskegee University, another in data collection with the U.S. Forest Service, and one in John Deere's agricultural marketing and sales. Gates hopes to pursue graduate school, and one day return to Western Kentucky to pay it forward to the area that has helped her get this far, perhaps as an extension agent.

**Gracie Furnish: Future Voice of Agriculture**

Gracie Furnish’s agricultural experience began when she was just a few days old, when her parents took her with them while checking cattle on their Harrison County farm. Today, the University of Kentucky sophomore and ninth-generation family farmer speaks on behalf of and advocates for agriculture education as a vice president of the National FFA Organization.

“Anytime I’ve been to an agriculture-related event, or on the farm, or at UK, I have always left feeling like a better person, or that I have been challenged to do something new,” said Furnish, an agricultural education major.

While caring for and playing with young animals as a child sparked Furnish’s love for agriculture, the flame ignited as she completed 4-H projects, and it grew when she began participating in FFA in high school. From that time forward, she wanted to be involved in agriculture. With UK being a nearby land-grant university, she knew she would come to Lexington to further her education.

“Every time I came to UK Field Day here, I loved the atmosphere, and I loved that everyone was nice and that everyone cared,” she said. “We always say that we’re the College of Agriculture, Food and Environment family, and I truly felt that when I came to campus.”

While she is a stellar student, Furnish’s friendly and caring personality is contagious and sets her apart as a student leader, said Stacy Vincent, associate professor in the Department of Community and Leadership Development. “During her freshman year, Gracie connected with a student who knew no one, and she was able to help them connect with friends and a social life,” Vincent said. “That student has now flourished and serves on numerous leadership boards within the college.”

Furnish is a college ambassador and was the treasurer of the Agriculture Education Society. She also works with the National Association of Agricultural Educators, located on UK’s campus.

After her year of service to FFA, she plans to return to the college with a goal of continuing to educate others about agriculture.

“We always say that we're the College of Agriculture, Food and Environment family, and I truly felt that when I came to campus.”
Michaela Mineer: Future Family Advocate

Family is Michaela Mineer’s passion and the foundation of her future career. “We are all who we are, because someone had an influence on us,” she said. “The family unit impacts every part of society. It helps create the culture we live in, the norms, how we see ourselves and others, and our overall well-being.”

A Fleming County native, Mineer grew up on a hobby farm, the older of two children and daughter of a UK alum. She joined the Department of Family Sciences as a major with the goal of positively impacting families.

“It would always break my heart when I would see a child or family struggling, because when a family struggles, it impacts everyone,” Mineer said. “I want to help people recognize what is going on and find solutions.”

Since coming to the college, Mineer has been known for her passion and achievements in the classroom.

“Michaela has a strong balance of academic and leadership skills,” said Diana Haleman, senior lecturer and director of undergraduate studies in the department. “Her enthusiasm for gaining new experiences and her strong motivation to contribute professionally make Michaela a student to watch, as she moves forward into graduate studies and her subsequent career.”

Outside of the classroom, Mineer is deeply involved with the Family, Career and Community Leaders of America, or FCCLA. In high school, Mineer was the organization’s state president. Since coming to UK, she continues her involvement in the organization, receiving competitive internships at the state and national levels. She and another intern developed the Phase One program in 2016. It seeks to attract middle school students to family and consumer sciences and the FCCLA.

Mineer graduated in May and has already entered graduate school at American University in Washington, D.C., to pursue a master’s degree in public administration. She hopes to one day have a career advocating for policies and causes that affect families.

“The family unit impacts every part of society. It helps create the culture we live in, the norms, how we see ourselves and others, and our overall well-being.”