Schools Around The World Are Racing to Create Future Food Curriculum. Here's Why it Matters.



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Anyone familiar with the story of Silicon Valley knows just how fundamental the university system was in creating the center of the technology universe.

Colleges and universities have long served as launch pads for the world's biggest tech companies, from the education of integrated circuit founding fathers William Shockely and Robert Noyce (at Caltech and MIT, respectively) to the creation of Yahoo! and Google by graduate students at Stanford, to Mark Zuckerberg hacking away at Hot or Not in his dorm at Harvard.

And now that food companies big and small are embracing new technologies to create alternative forms of meat, universities around the world are racing to create curriculum and innovation centers to create the food workforce of the future.

In the U.S., future food activity is popping up at schools from coast to coast, with notable efforts that include <u>UC Berkeley's Alt Meat Lab</u>, <u>a cellular agriculture</u> course at Tufts, <u>CRISPR courses at Harvard</u> and <u>ReThink Meat courses</u> at Stanford.

But it's not just American schools. Singapore's Nanyang Technological University has created an alternative protein course called "Future Foods—Introduction to Advanced Meat Alternatives." In Israel, The Hebrew University of

Jerusalem <u>launched</u> a pilot course titled "Cultivated Meat and Plant-Based Meat." An introduction to cell-based meat <u>is now available for postgraduates</u> at the Federal University of Paraná in Brazil.

So what's driving all this interest in future food in the halls of academia across the globe? According to long-time future food pioneer and lecturer Ron Shigeta, one of the main forces is advocacy organizations.

Groups like the Good Food Institute "are leveraging money from ethical vegans and others interested in animal welfare," Shigeta told me. "They are offering incentives to schools and programs, as well as driving the economic incentives by helping grants come through. This is happening in Davis, CA, Singapore and elsewhere."

Amy Huang, who heads up the Good Food Institute's efforts to encourage the academic community to embrace alternative protein education, says the reason we're now seeing alt-protein education flourish around the world is simple: a fast-growing industry needs good people.

"People are the very backbone of our quest to reimagine the protein supply," said Huang via email. "So, it's essential that we equip students and industry professionals with a deeper, stronger foundation of specialized knowledge they'll need to join the alternative protein sector."

According to Huang, higher education institutions want to prepare students for what promises to be a potentially massive shift by helping them understand the enabling technologies and systems underpinning these changes.

"These courses are being driven by forward-thinking faculty and university administrators who are challenging the educational status quo and asking themselves: What emerging technologies have true disruptive potential? How can we equip our students with the skills they need to be leaders in these fields?"

And it almost goes without saying that by preparing their students with programs about disruptive new alt-meat technologies, these institutions are setting a foundation for their own future success.

"By prioritizing innovation over convention, they're positioning their institutions as the centers of gravity for students seeking a groundbreaking education," said Huang. "And they're also establishing their regions as potential hubs for the explosion of entrepreneurial activity and economic growth that the alternative protein industry will bring."

And it's not just the schools who are driving change. Students, many of whom have value systems that align with a move away from industrial animal agriculture, are asking for classes and sometimes even creating their own.

This is something both Shigeta and Huang agree on.

Shigeta noted that, "Millennial and GenZ students (sometimes vegan) are much more focused on climate change, looking for socially positive ways to make changes they believe in. With the students advocating for movement from within, the doors are opening for sure."

Huang believes the students themselves are perhaps "are perhaps the most powerful changemakers within academic ecosystems." She adds that, "We see this playing out through <u>The Alt Protein Project</u>, like at <u>Wageningen</u>, <u>Stanford</u>, and UNC Chapel Hill, with students advocating for and successfully launching courses at universities around the world."

The Alt Protein Project is the Good Food Institute's own program to develop and encourage alt-protein education within the world of academia. The program has five objectives: building courses and majors, expanding open-access research, stimulating entrepreneurship, building awareness, and creating an inclusive and interdisciplinary community.

One example of this student-led change helped by GFI is at the Netherland's Wageningen University. Masters student in Human and Animal Physiology Panagiotis Vlachogiannis wondered why there wasn't a class in protein transition. To create one, Vlachogiannis worked with the Good Food Institute on a student-led effort to build up both a community interested in this area as well as a group of teachers willing to lead such courses. The effort paid off, as teachers within the food science department have indicated they plan to teach the course the students proposed next year.

All this progress is exciting, but in many ways it's still early days. Wageningen, after all, is widely recognized as the world's top university in agriculture education and the school is just now getting around to creating a class on protein

transition. UC Davis, one of the US's leading ag research universities, created its <u>Cultivated Meat Consortium</u> in 2019 is <u>just now</u> launching the second phase of its formal cultured meat programming and research.

But according to Huang, what is early today in terms of future food education could become commonplace in a few years as colleges look to build a workforce and create a foundation for the world of alt protein.

"In five years, we hope to see alternative protein courses at every major university around the world," said Huang. "The educators and institutions that begin cultivating these kinds of educational pathways today will hold the attention of alternative protein startups and companies as they expand their teams, build infrastructure, and establish industrial centers."

Let's hope she's right. Just as the rise in computer science curriculum has helped fuel growth and an explosion in huge societal shifts (both good and bad) over the past century, we're gonna need some serious creativity to help us manage and expand our food systems over the next 100 years. The pandemic exposed our food supply chains' fragility and opacity while also illustrating how our continued over-reliance on industrial animal agriculture is not sustainable.

In other words, we're gonna need lots of smart people to help us feed 10 billion people, and much of that will start with an education system that creates a qualified future food workforce.