



For What It's Earth...Implementing Measures to Help Campuses Go Green

SPEAKERS

Tierney King, Beth Choate

Tierney King 00:00

This is the Faculty Focus Live podcast. I'm your host, Tierney King, and I'm here to bring you inspiration, energy, and creative strategies that you can utilize in your everyday teaching. This week's episode is sponsored by the Teaching Professor Conference. This year join us in-person in Atlanta to pursue your passion for teaching. So we're celebrating Earth Day next week, and in response, we're going to be talking about how universities, instructors and students can do their part to foster a green campus. And today, we have Beth Choate with us, who is an associate professor and chair of the nation's fourth ranked environmental science and sustainability department at Allegheny College. So to start us off, let's talk about what kind of piqued your interest on the topic of environmental sustainability and implementing measures to help campuses go green? What was the catalyst for you?

Beth Choate 00:53

Thank you. So my background is actually in sustainable agriculture. And I came to Allegheny College several years ago, and they were doing amazing things around campus sustainability. And I started working really closely with students. And I realized that they really understand the severity of our environmental problems, they get it. They know that we need to drastically curb carbon emissions, or we're gonna see irreparable damage. And they want to make a change. And they want to be part of that solution. And so that's been amazing. What better way to empower them to be able to make a change than working on their own campus. When a student knows that they're working on a project where they're actually going to see the result, and they're going to see a positive impact, they get so excited. And I get excited as an instructor. And so I really think that campuses can act as models for businesses, cities. And my hope is that my students leave here and they take what they've observed and what they've learned here on campus, and they use it in their life after college, and they go into the world, and they look at how they can make positive change in their future homes, in their future jobs. And all of the places that they go.

Tierney King 02:10

Yeah, and I think you know, so many students, you don't know it necessarily, but they do want to make this change. And they do want to do something bigger and better for the world. And that's pretty awesome that you can start that, you can be that catalyst for them and help them on that journey. And

so one of the concepts that you focus on is how to prepare university students to foster this environmental mindset through the United Nations Sustainable Development Goals. So kind of explain this, and what we can do to prepare both instructors and students to help facilitate these goals.

Beth Choate 02:46

So the Sustainable Development Goals are 17 goals that are really a call to action for countries to work together. And they range from ending poverty, improving health and education, reducing inequality, and doing all of this while tackling climate change and preserving ecosystems. And so the UNSDGs are really about working at a national level. But realistically, national change comes, you start at the local level, it comes from local change. And so the Allegheny College Environmental Science and Sustainability Department works with businesses, nonprofits, local government, even our own campus to look at these real world environmental problems and sustainability problems that they're having. And we work with them. And we think through okay, how do we tackle this problem? And it's pretty exciting. So right now, we have some students working on conducting a greenhouse gas inventory for the city of Meadville, right? So it's, it's a start in the city trying to take action against climate change. We have students conducting solar panel installation at a local church at a local nonprofit where they provide housing for low income residents. And we have students using GIS or Geographic Information Systems to actually map out the city and figure out what residents are at greatest risk for things like flooding. And so we really want students to get into solving these problems and tackling these issues. And when they do that, they start to realize that they have to think across multiple disciplines, right? So it's they have to understand economics and health and ecology and social justice. And that's really important to us here in this department, and we think it's essential for training them to move forward and tackle those sustainable development goals. As for faculty development, we're extremely collaborative within our department. But we also work really hard to develop collaborative partnerships in our local community and our national community and our international community. And so we are learning together, we are very encouraging of one another to constantly be considering how we're teaching our city And are we accomplishing what we really want to accomplish? And so something that we did very recently is we, together all 16 faculty and staff within our department work together, and we collaborated on a paper about how we use Community Based Learning to train students to become agents of change in the environment. And so it's pretty exciting. Because this June, Allegheny College is gonna host the Fifth World Symposium on Sustainable Development at Universities. It's an international conference, and we're going to present the results of that study, and learn with our international colleagues about how they're doing this work. So it's really all about constantly learning and engaging with the community.

Tierney King 05:44

And you said something interesting about, you know, the students and kind of giving them these real world skills and how they have to use all these different elements where it's not just focused on, you know, economics or sustainability. It's all of these put together. And, you know, what kind of benefit have you seen students take from using these real world skills and doing these things on campus? And then how do they use this after graduating?

Beth Choate 06:09

That's a great question. I feel like our students are so prepared to go into a world where the issues surrounding sustainability and the environment are ever changing, right? There is no formula to solve

any of these problems, or handle any of these challenges. And so my goal, our goal, is to create nimble students, right, prepared to think critically, and to really engage with these problems, and to look at the entire picture. To really understand, and go into a community and really understand what is happening. And so I see really successful students that happen to be really good at this. And that's super exciting.

Tierney King 06:50

And then you mentioned how a green campus can be a great educational tool for creating green citizens. And what specific opportunities or projects or events can you recommend that, you know, other universities or instructors can implement to help foster a green campus? Because, you know, there's a lot going on on campus. So what are some easy strategies or projects that other universities can start implementing themselves?

Beth Choate 07:16

We really use our campus as a living laboratory. This department that Allegheny College ESS department has worked really closely with the director of sustainability, physical plant, and a variety of individuals on campus to think about, okay, what are the next steps. And so some of the projects that we have done, and we've incorporated into classes, we've incorporated into internships include, each year, our students participate in an energy challenge. It's called the October Energy Challenge. And we really, it's a competition among dorms to see who can reduce their energy the most. There was flyers up throughout the month, there was a "steal the campaign" one year encouraging students to actually take little flyers and they had funny cartoons of various professors on them reminding them to turn the lights off or unplug their computers. And that's one way that we get the whole campus involved in thinking about sustainability. And it's really fun. All the money that we save goes toward a new sustainability project on campus. So they can see that hard work paying off, which is really exciting. We also, students were really interested in in food and learning more about growing their own food and eating that food. And so as a result, they designed a 3,000 square foot garden and help to build that garden on our campus, along with a greenhouse that is actually, it's a power generating greenhouse, and they work to build the solar panels on top of that greenhouse. A fun project that's near and dear to my heart that I did with second year students in our research methods class, is we noticed that there was a lot of disposable bottled water on our campus. We were looking in garbage bins and recycling bins and notice that this was happening, and we wanted to know why. So we talked to the director of sustainability, and she really she couldn't figure it out. She was as baffled as we were. We looked at numbers. People were buying cases of bottled water off campus and bringing them onto campus. I had pictures of students with towers of bottled water. And this is concerning. We were working toward carbon neutrality at this point. So my group of 16 second year students and I started working along with another faculty member. And we surveyed 35% of our college campus and we found out that it was a lot of first year students that were consuming bottled water, and no one on campus liked the taste of the tap water - which is not surprising. And you move from all over and tap water tastes different depending on where you live. And so we're like okay, how can we really encourage students to use a reusable bottle. So we did some brainstorming, and ultimately, we went from, we had two bottle refill stations on campus, and we increased that to 28. And so the bottle refill station filters water, it chills water, it makes it really easy to refill a reusable bottle. And so we put those throughout campus and started handing out water bottles and started talking about the safety of the water. It's interesting, a lot of students are concerned about the safety of their drinking water. And so we started talking about that. And we did

another survey four years later, which was very recently, and we found that really only about 10% of students in each class are saying that they rely on bottle water. And for most of our students, it's an instance where they forgot their reusable bottle. And so they ended up buying one bottle. So we really feel like we've made a shift with our students. And it's, it's the culture now, right, you carry around your reusable bottle on campus. And it's been pretty amazing to watch that happen in a short period of time. So those are a few projects, but we really do try to integrate making change at every level of our curriculum. So from first years to fourth years, and involve a lot of students. That's super cool. I'm not gonna lie, I use bottled waters every now and then because our tap water isn't filtered. And now, you know, I'm gonna have to look into it and be like, how do we how do we get filtered water. So I think it's one of those things that you just you don't realize always that you're doing, you know, it's a bottle of water, you buy one and you drink it, and just because you forgot it, but the impact it can have on, you know, just refilling your your water bottle is is huge.

Tierney King 11:20

So true. I mean, we were really concerned about waste streams initially, and just the amount of waste going into landfills. But if you look at the entire lifecycle of one plastic bottle, and even the box, the water that's put in that bottle, and has a pretty big environmental impact. And when you explain to students, the lifecycle of you know, we'll just say that of the water bottle and you know, what it does to the environment, you know, do you put up posters and make infographics? And do you get the students involved in that process?

Beth Choate 12:17

Definitely. When we were trying to get the water refill stations to take off, we put up flyers throughout campus at those refill stations, directing people to the refill stations. So students are really involved in that educational component. We also have on campus, what we call green boxes were which are just reusable containers for food. And you can use those instead of getting a disposable box. And that is also students are always involved with with letting other students know why that is important. And so they do a lot of tabling in the Campus Center to talk to, to talk to a wide array of students and reach not just environmental science and sustainability students.

Tierney King 13:01

That's awesome. You know, they're just these little things that it's really easy for students to do. And then lastly, you emphasize that we need to focus on resilience, and that we need to design solutions that are inclusive and equitable. So kind of take me through that thought process and why this is such a vital piece of the whole equation.

Beth Choate 13:19

So really, social justice and the health of fellow human beings goes hand in hand with environmental sustainability. And the way I think about it is if the air that you're breathing in your neighborhood is causing you asthma, or the water coming from your tap isn't drinkable, that's both an environmental issue and a social justice issue. And so low income and historically marginalized communities are often strapped with more of that environmental burden than other groups. And so as a result of this, we see some really amazing ways that people are tackling these problems. And so, for example, indigenous people are 5% of the world's population, but they protect 80% of our biodiversity. And in fighting

pipelines in US and Canada, indigenous people have prevented carbon emissions equivalent to 400 coal power plants. And so really, there's some amazing solutions coming out of these communities that are looking at the problems in a variety of ways and are really innovative. And so if everyone isn't at the table, then we can't fully understand the depth and breadth of these environmental issues. And frankly, we're missing out on expertise that could really move us forward and break away from that conducting business as usual.

Tierney King 14:34

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