

# IGNITE CHANGE. GO GREEN.

## Faculty Spotlight:

Samantha Chapman, PhD, Associate Professor,  
Department of Biology

This interview series brings you inside the world of the Villanova faculty and explore how their work relates to creating a sustainable future. In this issue we hear from Dr. Samantha Chapman, an associate professor in the Department of Biology.

### **What is your academic background?**

I completed my graduate work on the Colorado Plateau in Arizona working in both desert and mountain ecosystems. I examined how both insects and forest diversity influence the rate at which ecosystems store carbon.

### **How long have you been teaching at Villanova?**

I've been a professor at Villanova for 9 years. I love the balance of research and teaching that being a biology professor at Villanova allows. Some of the courses I teach include a large General Biology course and graduate course in Ecosystem Ecology, with students ranging from freshman to graduate students. The students I work with in my lab often generate the most interesting questions I pursue in my research program.

### **In your own words, how would you define sustainability and why is it important to you?**

To me, sustainability means humans act as both users and stewards of their environment. This stewardship can maximize our ability (and that of other animals) to continue to prosper on this Earth. I promote sustainability because it's the best way for us to continue to live on this awesome diverse planet. Earth would be fine without humans, but we need Earth for our survival.

### **What is your current research focused on?**

I study how climate change influences coastal ecosystems. The mangroves and marshes that line our coasts protect us from big storms and rising seas. I'm trying to understand how they'll continue to do this in the future.

### **Do you collaborate with others on your research?**

I collaborate often with colleagues in the Geography and Environment Department and sometimes with colleagues in Engineering. We have fantastic scientists here at Villanova.

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## **Have you been able to incorporate sustainability into your course work?**

I often incorporate sustainability into my courses via discussions about agriculture, climate politics, and environmental ethics. My students work on projects where they attempt to discern the monetary value of the services that ecosystems provide for us.

## **If you could create any course, what would it be?**

In the past I have taught a Capstone course on ecosystem services. Ecosystem services are those things that natural ecosystems provide for us as humans like pollination, climate control, and clean water. I'd love to teach this course with an ethicist or a political scientist.

## **What are your favorite outside of the office activities?**

I like hiking with my 6 year old and 3 year old and husband who is also a professor at Villanova. I enjoy training for races and doing yoga.

