



## Integrated Sciences First-Year Program

The Integrated Sciences First-Year Program offers students with a strong interest and/or background in all fields of science and mathematics to immerse themselves in hands-on exploration and research with faculty and peer-mentors. In the fall of 2015, students in the program will have a science learning experience combining microbiology, biogeochemistry, hydrology, and mathematical modeling using the new Hampshire College Kern Center - built to the Living Building Challenge Standard - as a case study. Students will meet twice a week to explore the science behind the systems of the living building in their specific discipline. Once a week all three classes will meet together to complete interdisciplinary projects, share expertise, and form a collaborative science learning community. We will learn about the campus living building from the architects and design engineers, take field tours, and meet faculty across campus engaged with the project. Students interested in this program should choose one of the following for their first year tutorials.

### **NS132T Where Does the Water Go? Water, Carbon, and Nutrient Flows in a Living Building.**

Students will focus on the inputs and outputs of water, carbon, and nutrients from the living building using a systems approach. *Dr. Seeta Sistla and Dr. Christina Cianfrani.*

**NS140T Modeling Systems in a Living Building.** Students will use mathematical models to build our understanding of the processes occurring in the living building. *Dr. Sarah Hews*

**NS156T Who Does the Dirty Work? Microbes in a Living Building.** Students will focus on the microbial components of drinking water and waste processing in the living building. *Dr. Jason Tor*

Students who complete one of these courses may choose to continue their work using the living building during the spring and/or summer in:

**NS280 Integrated Sciences II: Collaboration Design Projects.** Students will develop projects focused on the living building. We will learn skills in independent and collaborative research, project design, grant writing, presentation, and science writing.

**Integrated Sciences III: Summer Research Experience.** Students will work with faculty and peer-mentors during the summer to complete research projects.

For more information contact:

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