AN ENVIRONMENT TO LEARN

JERRY McCREA/THE STAR-LEDGER

Ramapo professor Michael Edelstein describes the college's soon-to-open Sharp Sustainability Education Center Home, which will showcase the most technologically advanced green building designs. He is sitting in his office in front of a device that uses worms to help produce compost.

Ramapo center to be hub of green studies

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Long before Al Gore started teaching about global warming, Ramapo College students were planting organic gardens, recycling bottles, and studying solar and wind power and other alternative energies.

A lot has changed since Ramapo started to go green 30 years ago, but not its commitment to the environmental movement. It plans to open New Jersey's first on-campus sustainability education center this spring to showcase the most technologically advanced green building designs.

Ramapo isn't alone in rediscovering the green movement that in the 1970s swept across American college campuses. Administrations in New Jersey and elsewhere are making big changes to conserve energy and catch the coming wave of new industries and careers that aim to capture solar, wind and other green technologies.

The 1,787-square-foot center in Ramapo will feature solar panels, geothermal heating, energy-efficient lighting, even waterless urinals. Future plans call for a wind generator, organic gardens and a solar greenhouse.

The project is designed to embrace the idea of sustainability, a catch-all term used by scientists and environmentalists reflecting a recognition that our actions today affect our prospects for the future.

"It basically is applying the knowledge that we have finite resources and use them in such a way to conserve them as long as possible," said Emma Rainforth, an assistant professor of environmental science and geology. She added that a key belief of sustainability is alternatives can be used to sustain current lifestyles.

Rainforth said the center will serve as a hub for advanced study on sustainability issues, a place where students in the

[See **GREEN,** Page 17]

PHOTO COURTESY OF MICHAEL EDELSTEIN

In a photo taken decades ago, a Ramapo student hands Edelstein, in hat, a joke trophy for his efforts to help protect the environment.

MITSU YASUKAWA/THE STAR-LEDGER

Ramapo College's new sustainability center is expected to open this spring. The college in Mahwah has long had a commitment to the environment.

GREEN

CONTINUED FROM PAGE 11

A focus on 'sustainability'

environmental degree programs and eco-friendly clubs on campus, as well as students from K-12 area schools, can take classes, garden, and study the latest green technologies.

The opening of the center fits neatly with the college's commitment to the environment, which goes back to Ramapo's founding in 1969.

Recently, the college's president, Peter P. Mercer, signed the American College & University Presidents Climate Commitment, a measure signed by 400 college presidents, including at least six in New Jersey, promising to reduce their schools' greenhouse gas emissions.

A DECADES-OLD IDEA

In 1975 a group of students and faculty at Ramapo in Mahwah had a similar goal in mind when they built the Alternate Energy and Environment Center on the campus in response to the energy crisis of that decade. Its goal was to demonstrate alternative methods of producing and using resources, including energy, food and shelter, in ways that did not take a huge toll by depleting those resources and creating pollution.

Before it was torn down to make way for dormitories seven years ago, the old center had a solar schoolroom and a solar greenhouse, organic gardens, a yard where recycled glass was stored and later sold, and a water-pumping wind system.

"People learned that you can have a major impact on creating the environment you occupy, and we hope to recreate that phenomenon," said Michael Edelstein, a psychology and environmental studies professor. "The idea is to draw people in and empower them that they can change the way things are done."

Edelstein has been teaching — some would say preaching — sustainability for more than three decades. His office is a kind of shrine to his efforts: a worm composter doubles as a coffee table, and an old sign from the Alternate Energy center hangs above his desk, as well as a black and white photo of the original center's recycled Jacobs generator that used wind to generate electricity for the center.

The new center, he said, will be much more technologically advanced and will be called the Sharp Sustainability Education Center Home, so named to reflect generous donations from the college's corporate neighbor — a $250,000 grant and 83 solar panels capable of generating 14.608 kilowatts, as well as AV equipment.

The project is also funded by a $500,000 appropriation from the college and a number of federal and state grants and donations. The college's Institute of Environmental Studies continues to fundraise for the organic garden and outdoor features.

The school hired an architect that specializes in sustainable designs, Stephen Tilly Architects of New York, to build the structure, which uses the best orientation toward the sun, natural daylight and ventilation, as well as recycled and environmentally friendly materials, and a super insulated building "envelope" of walls and windows, roof and floor.

Edelstein said New Jersey has emerged as an epicenter of change because of its "far reaching" target of an 80 percent reduction in greenhouse gasses by 2050, with substantial progress on this path by 2020. The new center will showcase new technologies and practices that builders can use to make new structures more energy efficient.

"It makes sense to invest in green technology because it no longer is simply ideological," Edelstein said. "It makes economic sense."

Over the years, Edelstein has seen interest in environmental studies rise and fall. There was a great interest in the subject in the years soon after the college opened in 1969, but dropped sharply after Ronald Reagan was elected president. The environmental studies school went from 400 students to 35 in the first two years of Reagan's term, he said.

"The problem was that Jimmy Carter came on television in a sweater and told everyone to turn their heat down, and then Reagan came on and said, 'There is no problem,' " Edelstein said.

Today, in the wake of Al Gore's "An Inconvenient Truth" documentary about global warming, and the fuel crisis that gripped the nation this past year, society has entered a new environmental era, Edelstein said.

"Students are rediscovering it," Edelstein said.

One of those students is Paul Coraggio of Hazlet, who is pursuing a major in international business and a minor in environmental science. He is focused on sustainable business and development and founded 1Step (Students Together for Environmental Progress), a student club that runs an annual "green facts" competition in which students compete to use the least amount of energy in their dormitories.

"People are realizing that the benefits of (green building) are ubiquitous," Coraggio said. "In the past it was just an environmental issue. Now it's connected to health, economic and other issues. Businesses are realizing there are cost savings."

More New Jersey news on Page 53.