"Students have a sense that somehow there is a 'truth' out there. When you get them to think in a different way, they take another look at the world around them. And, in doing so, they reexamine what they took for the truth."

—Aline Kuntz, associate professor of political science
3
Arthur Borror
Distinguished Professor Award
Teaching Excellence Award, College of Life Sciences and Agriculture

"I'm a card-carrying islamaniac," he says, with obvious pride.

4
Karen Smith Conway
Excellence in Research

"And the possible situations are amazing, because there are just so many holes to be filled."

5
Thomas Laue
Outstanding Faculty Award

"He could take just about anything—the inside of a brown paper bag, say—and make it sound so interesting you want to get inside and check it out yourself."

6
James Farrell
Teaching Excellence Award, College of Liberal Arts

"The oratory we discuss is the stuff of heroic political combat or the work of fundamental social change."

7
Robin Collins
Excellence in Public Service

"He's Mr. Slow Sand Filtration in the U.S."

8
Michael Merenda
Teaching Excellence Award, Whittemore School of Business and Economics

After three years with Merenda & Sons, however, this Merenda son thought, "Anything's easier than this."

9
Cathy Frierson
Teaching Excellence Award, College of Liberal Arts

"I was in Russia when Mikhail Gorbachev was elected, and I was so absorbed by it all. Now, it's interesting to see what students remember about that time in history."

10
Gail Rondeau
Teaching Excellence Award, UNH at Manchester

"I also reserve the right to step back and let them land on their own two feet."

11
James Goodberry
Teaching Excellence Award
Thompson School of Applied Science

"It may seem strange, but as a math teacher I can be an advocate for students to be successful in their career choice."

12
James Lewis
Outstanding Faculty Award

Smooth, young, impassive faces study Lewis as he begins to lecture at his usual "423 words per minute."

13
Maureen Neistadt
Teaching Excellence Award, School of Health and Human Services

"First of all, let me say this. Maureen is great."

14
Aline Kuntz
Teaching Excellence Award, College of Liberal Arts

"Studying political science struck me as being part of my everyday life."

15
Michael Stetson
Teaching Excellence Award, College of Engineering and Physical Sciences

"At heart, I'm a generalist," Stetson confesses. "I'm interested in almost everything."

16
Marc Herold
Jean Brierly Teaching Award

A purple poster on his wall quotes Pink Floyd: "Did you exchange a walk-on part in the war for a leading role in the cage?"
The Birdman of Appledore

Having recently become obsessed with songbirds at our feeder, I arrive for my interview with Art Borror with more of my own bird questions than questions about his teaching. But before I can launch into either, Borror, standing in his office wearing a puffin tee-shirt and holding the body of a female snowy owl, tells me a little about her life.

She had wintered at Appledore Island, at the Isles of Shoals, and was observed there by birders until very recently. She apparently died of natural causes. She is a beautiful owl, majestic even, and I’m inclined to stroke her head as if she were a dozing cat.

As much as he knows about birds—a member of the board of the Audubon Society of New Hampshire, he’s also known as Birdman in the zoology department—Borror calls himself a generalist in natural history. One entire wall-length bookshelf is lined with field guides to trees and shrubs, animal tracks, spiders, stars and planets, reptiles, and shells. The field guides are ragged, some of the covers are missing. A generalist in natural history, he explains, is a person who is as comfortable in a bog as in an intertidal zone.

This year, Borror, a professor of zoology who joined the UNH faculty in 1961, is the recipient of two awards: the University’s Distinguished Professor Award and the College of Life Sciences and Agriculture’s Teaching Excellence Award.

Borror teaches a variety of classes, from an introductory biology course to an advanced honors course in marine biology. They range in size from thirty to ninety-two students. The majority of his students adore him and love the courses. “There are always a few who don’t like my classes,” he admits. “I don’t know if it’s because I’m Clint Eastwood stare or my plaid ties.”

And it is the students’ feedback that means the most to him. “What I love most about teaching is hearing from the students. I take a great deal of pride in my work, and their appreciation of that work means a lot to me.”

Since he was a small boy, Borror has spent each summer on an island, except for a few spent in central Ohio during World War II. And there was a year or two in the 1970s when he spent summers in a salt marsh. “I’m a card-carrying isomaniac,” he says, with obvious pride.

His father was also a naturalist and taught on Hog Island in Maine’s Muscongus Bay at what today is the Audubon Workshop. Borror, who also taught there in the 1960s, spent boyhood summers on the island, working in the kitchen and getting a chance to rub elbows with some of the nation’s best-known field naturalists.

He says his father certainly had an influence on his own career choice but, he adds, even without that influence, “I spent so much time hunting butterflies and garter snakes in central Ohio, when I was six, seven, eight. It was during World War II, and housing subdivisions were all laid out, but nothing was built yet. There were just miles of empty streets and weedy fields, and I was always out there with a couple of friends looking for butterflies.”

His primary fields of interest are ciliated protozoa, ornithology, and Maine Islands. But, after years as a member of the teaching faculty of the Shoals Marine Laboratory, Borror can talk about anything on Appledore Island that is part of the natural world.

“The natural world is huge and fascinating,” he says, and then elaborates with a fact that boggles the mind.

“If you walked out in the forest,” he says, “and dug a shoveful of earth, I guarantee you that in that shoveful there are species that are new to science—in other words, species of protozoa, roundworms, and beetles that have not yet been identified or named by scientists. We probably know more about Mars than we do about that shoveful of dirt.”

Later this summer, Borror and his wife will travel to the Siberian coast of the Bering Sea. “There,” he says, “we will see at least two thousand pairs of red-legged kittiwakes, a northern regions gull. I really can’t wait.”

His face lights up, and I imagine how he looked as a young boy, trudging through the fields of Ohio, in search of butterflies.

by Kim Billings, director, University News Bureau
Karen Smith Conway loves solving problems. Like a detective uncovering the clues to an intricate murder mystery, she painstakingly puts the pieces of her puzzle together, hoping that the big picture will shed new light on one of society's many quandaries.

As an economist, Conway says there are an infinite number of problems to solve—one of the reasons she was attracted to the field in the first place.

"I've always loved the logic of economics," she says. "It's all around us, and just about every situation can be cast into an economic framework, even personal decisions like getting married and having children."

Calling herself "an empirical researcher, at heart," Conway’s areas of expertise are labor supply, public sector economics, and applied econometrics.

The key to her method of research, says Conway, is to use economic theory to develop an intelligent hypothesis, and then find the appropriate econometric model and data with which to test that hypothesis.

"I try to think of a problem or question and then make some predictions," she says.

Take a recently published study Conway coauthored with Michael Butler, of Texas Christian University on abortion legislation. With abortion rights under siege in several courts across the country, she wondered what might happen if Roe v. Wade, which legalized abortion in 1973, were overturned.

"What we predicted was that the country, as a whole, is unlikely to return to as restrictive an environment regarding abortion legislation as existed prior to Roe v. Wade," Conway explains. "The predictions of this study differed from others because our model emphasized the preferences of the general voting population, instead of political factors such as the actions and opinions of current legislators."

Though Conway admits that getting her research published is the most daunting of tasks—she definitely prefers the brainstorming phase of research to compiling the finished product—she realizes how important it is for people to have information on which to base their decisions. This includes legislators, she says, who need to be more accountable to the views of the electorate.

While some of her studies are highly theoretical and filled with just as many numbers as words, Conway says the impetus for many of her research projects springs from current events, student questions, and holes she finds in existing research. Studies in progress include such provocative titles as "Male Labor Supply Estimates and the Decision to Moonlight" and "Do Workers Know Where Their Tax Dollars Go?"

"Right now, for example, I'm researching how state fiscal policy affects workers, and I thought, 'How about moving? Does state fiscal policy influence where people decide to move?' That question provided the hypothesis for a current study I'm working on."

As an undergraduate economics major at Eastern Illinois University, Conway excelled at math and statistics. She decided that she wanted to teach, so she went on to graduate school at the University of North Carolina at Chapel Hill. To her surprise, she discovered that she enjoyed doing the research.

"That's part of the reason I became involved in labor economics—there's so much good data on work behavior that the possibilities to do empirical work are endless," she says, with a laugh.

"But I really enjoy teaching, as well, because economic theory isn't something students can memorize. They need to understand the logic and how to apply it to different situations."

In Conway's classroom, those situations become lessons on such complex issues as government spending, social policy, and labor market supply. She teaches them to look at the broad picture, to critically examine all information, and to question studies that are incomplete.

"I enjoy the challenge of teaching a tough course," says Conway, "because, once the students understand how it works, it's just applying the same logic over and over to different situations. And the possible situations are amazing, because there are just so many holes to be filled."

by Sharon Keeler, writer/editor, University News Bureau
An ability to start the game

"Tag. You’re it." Until he left his message, I knew only one thing about Tom Laue. In the course catalogue his name is followed by several multisyllabic tongue-twisters: "Biophysical chemistry, blood coagulation; molecular interactions; biological instrumentation," and "analytic ultracentrifugation." Now I knew something else. Here was a guy—a professor of biophysics, no less—who knew how to play phone tag, who sounded like he could actually be fun.

What’s a professor who’s so much fun doing with an Outstanding Faculty Award? "The thing you hear over and over about Tom is his enthusiasm," says research scientist Theresa Ridgeway, who has worked with Laue for nearly a decade. "He could take just about anything—the inside of a brown paper bag, say—and make it sound so interesting you want to get inside and check it out yourself."

Take the case of the equilibrium electrophoresis project, which began about fifteen years ago when a bunch of biophysicists met for burgers and fries. "We were wondering how come you can’t build a machine to measure the charge on a molecule," explains Laue. "We decided it should be doable. But nobody had time."

In 1988 Laue encouraged one of his students to tackle the problem for her senior thesis. For under a hundred dollars Andrea Hazard developed an instrument that did precisely what the Burger King biophysicists imagined it could do. Today, several prototypes later, Tom Laue and his department have developed the only equilibrium electrophoresis instrument in the world.

As he talks, Laue himself seems composed of highly charged molecules. He tilts back in his desk chair, dwarfed by an office wall covered floor to ceiling with bookshelves. He leans forward again, his words edged with excitement. Here’s a man who loves to explain, who loves to teach—who’s fascinated by everything.

"For Tom, the students come first," says Ridgeway. "In this day of committees, grant proposals, publish or perish, it’s hard to squeeze out the extra time, but he does it. They see it and appreciate it." What students don’t see is the other work Laue does: the book chapters, articles, and reviews; the world-wide lecturing; the endless work of getting money into the lab, including, for example, the recent award of a five-year, $1.3-million National Science Foundation grant.

Laue attributes his success to the team effort of many people—the machinists, his research scientists, and, yes, the students themselves. You get the feeling everybody’s important. Every project matters. The teaching helps the research, the research inspires the teaching.

"You can’t do one without the other," says Laue, talking about the different hats he wears. "I could not walk into a biochemistry class and teach and have it be exciting or up-to-date if I were not involved in research." He hauls a hefty 1500-page textbook from the bookshelf. "This came out in January of 1994. Already there are new discoveries, new insights. You can’t teach just from a book." It works the other way, too. "If you’re working on a research problem, the tendency is to narrow your focus. Teaching keeps your perspective broad."

Laue pauses, thinking. "There’s one more thing," he says. "If you don’t pass research along properly, you’ll have scientists who’ll go out in the world and do damage."

This is quintessential Laue. He’s always thinking beyond the lab, beyond the classroom. Laue thinks big. And he helps his students think big, too. It comes down to asking the right questions—questions that spark a willingness to play with ideas, to begin with an inkling and follow it to who-knows-where?

Tom Laue’s greatest skill, perhaps, is his ability to start the game. To toss out a jump ball of a question that sends students scrambling in pursuit of answers. He starts it. They take it from there, passing it back and forth as they go. Sort of like phone tag. Only here, in the classroom and lab, the rewards are greater. You get a chance to discover something brand new. To push beyond what you think you’re capable of. Tag. You’re it.

by Suki Casanave, writer/ editor, University Publications

It’s not uncommon for students going into another field to take Tom Laue’s course anyway—even if it’s not required. "If you don’t do anything else while you’re here at UNH," they’ve been told, "make sure you take a class with Tom Laue. He’s a blast."
James Farrell
Teaching Excellence Award, College of Liberal Arts

At the heart of public discourse

"The Senator from South Carolina has read many books of chivalry, and believes himself a chivalrous knight, with sentiments of honor and courage. Of course he has chosen a mistress to whom he has made his vows, and who, though ugly to others, is always lovely to him; though polluted in the sight of the world, is chaste in his sight—I mean the harlot, Slavery."

When you take the final exam in James Farrell's course, Rhetoric of Abolition and Anti-slavery, you find examples of mid-19th century rhetoric. And you analyze such passages, from Charles Sumner, for instance, in thorough and thoughtful detail.

That ability, says Farrell, the capacity to think critically about the meaning and implication of oratory, lies at the heart of the study of rhetoric.

Rhetoric is the art of public discourse, the investigation of critical, theoretical, and practical questions related to effective speech or writing. "The study of rhetoric," says Farrell, "connects to a sense of being a good citizen. The oratory we discuss is the stuff of heroic political combat or the work of fundamental social change."

"Students coming out of high school often don't have the background and interest in history, so I have two strategies for raising their interest."

"First, I localize the question and bring the issues and people close to home. For example, one of the first anti-slavery Senators was from Dover, John Parker Hale. So we'll include speeches by Hale, along with those of Daniel Webster and Frederick Douglass. Or we'll talk about Lincoln's crucial speech at the Cooper Union in New York, but we'll also talk about him visiting Dover and Exeter shortly after."

This strategy springs from personal experience. Having grown up in Westwood, Mass., a Boston suburb, Farrell found himself mining familiar territory while working on his doctorate at the University of Wisconsin. He studied Boston abolitionists and completed his dissertation on John Adams. "I found that connecting historical events and people with places I knew made the history come alive for me."

"My second strategy is, I try to fill out some of the characters with what could be considered trivial facts, things that aren't important in the broad sweep of history, but that add to the human element."

Farrell talks, for example, about Sumner, a U.S. Senator from Boston, a noted abolitionist, who was attacked on the floor of the Senate by a pro-slavery Congressman from South Carolina. The first president of UNH in Durham was Charles Sumner Murkland, born in 1856 shortly after Sumner had given the passionate speech that provoked the attack. "I try to draw connections between national characters and local characters. It's a way to lighten up the discussion of history, to make history and rhetoric seem familiar."

Farrell's campus activism includes involvement in the faculty union. "I'm disappointed and discouraged," he says, "despite this award, to have to teach in an environment in which my colleagues and I feel compelled to constantly fight for fair compensation and respect. We would all be better teachers if we felt we were treated with justice."

"I try to remind my classes," Farrell says, "that critical thinking is what it means to belong to a civilized human society."

by Louis Mazzari, writer/editor, University Publications

"The study of rhetoric," says James Farrell, "connects to a sense of being a good citizen. The oratory we discuss is the stuff of heroic political combat or the work of fundamental social change."
Robin Collins
Excellence in Public Service

The elephant stays outside

Ashland. Bethlehem.
Concord. Contoocook.
Derry. Durham. George's
Manchester. New London.
Portsmouth.

Taylor Eighmy reads a list of New Hampshire towns where his UNH Environmental Research Group is doing water-related projects. "Except for Mt. Vernon and Amherst, Robin Collins is involved in projects with all eighteen of these towns," says Eighmy. "Robin has been our best ambassador for going out and reaching the communities of this state."

A complete list of Collins's work extends to towns and cities throughout the Northeast.

The associate professor of civil engineering has worked with more than thirty communities since coming to the University in 1985. In 1991, at an international water-treatment workshop that Collins organized in Durham, the British Thames Water Company asked him to consider lending his expertise to help meet the drinking water needs of nine million Londoners.

Collins is in high demand due to an interesting convergence. Eighmy says Collins had the foresight and good fortune to focus his research on improving a neglected but reliable, low-tech, hundred-year-old water filtering technology. At the same time, federal regulations were poised to create a sharp need for just such a thing. Now, says Eighmy, "He's Mr. Slow Sand Filtration in the U.S."

Slow sand filtration? Picture something like a swimming pool, the bottom three feet filled with sand. Add water. Let it trickle through the sand layer and out the bottom. Voilà: palatable water. It works, Collins explains, because a slimy layer of bacteria grows on the surface of the sand. As water passes through, disease-causing agents like Cryptosporidium and Giardia cysts are intercepted. So are the things that cause discoloration, like decayed plant matter.

In 1873, Poughkeepsie built the first such plant in the U.S., according to Collins. Back then, says the native of southwestern Virginia, the motivation probably came from a concern for aesthetics and a new awareness of water-borne diseases. Now, constraining federal regulations require nearly all municipal drinking water that comes from above ground—ponds, streams, lakes, reservoirs—to be filtered in addition to being disinfected.

In the past, communities relied heavily on chlorine disinfection. But the dose required to reliably kill pathogens also was found to create unhealthy levels of byproducts. Some, like trihalomethanes, are potential carcinogens. If a community filters its surface water first, it can significantly reduce the level of chlorine needed. The result is a double barrier against disease.

There are other ways to filter drinking water, and Collins studies those, too. His latest research involves filtering water through a collection of hollow tubes resembling a fistful of tiny paper drinking straws. The material they're made of forms a membrane that allows water to pass, but traps impurities.

"It's like a screen door. The air comes through; the elephant stays outside."

The elephant represents a Giardia cyst. A virus would be more than the size of a mosquito. Even that would be filtered out. The advanced technologies can deliver these high levels of purity, on demand, while taking up less space. Depending on how they're applied, they can cost more, too. And cost is a big factor for the majority of communities affected by new regulations.

Eighmy cites two revealing statistics. Approximately eighty-five percent of community water systems in New England qualify as "small," serving 3,300 people or fewer. In 1993, eighty-nine percent of New England systems violating federal codes were small systems. That means a lot of communities are scrambling for solutions. All of which creates high demand for Collins's expertise.

But it takes more than circumstance to make a career. You have to act. Collins has. As a sanitary engineer in the U.S. Army and an environmental district engineer in Wyoming and Kansas, he remembers wishing for better relations with the states' universities. So when he and his wife, Linda, moved their family to the University in 1985, one of the first things the new assistant professor did was visit state offices in Concord and introduce himself to people who might want to work with him.

As for being singled out as an example of excellence in public service, Collins says it makes him uncomfortable. For Collins, the boundaries between his research, its application, and his teaching are not at all clear. Each informs the other. Each is indispensable to the other.

Public service? "All faculty do it. It's part of being a professor."

by Tad Ackman, writer/editor, College of Engineering and Physical Sciences
Just one of the boys

Mike Merenda worked at his father’s flooring business in Everett, Mass., for three years after getting his master’s degree in business administration. If he had enjoyed himself a little more, he never would have made a career of teaching.

Merenda kept the books at Roy Merenda & Sons—which included not only sons, but uncles, nephews, and other assorted relatives, all male. Being the youngest son and latest newcomer. "I was the low end of the hierarchy."

After three years with Merenda & Sons, however, this Merenda son thought, "Anything's easier than this," he recalls with a laugh. And with that thought, he returned to school to earn his doctorate degree in business administration and remained in higher education, eventually becoming a UNH faculty member.

Merenda had always stayed close to home, spending his first twenty-four years in Everett. He attended a local school, Northeastern University, graduating with honors in business administration in 1970 and then earning a master’s degree two years later. He’d had his share of job offers back in 1970 from several companies, among them Star Market and Raytheon, but he enjoyed the atmosphere of higher education and, specifically, teaching.

"It was just fun," he says, "I enjoyed it. I got the bug early." Even while working at his dad’s company, he taught at a community college. "I kept my hand in."

He admits to some apprehension in pursuing a teaching career. Fearing he would lack credibility in the classroom without experience in "real world" businesses, he considered delaying teaching to work with one or two companies. But then again, he reasoned, that would simply mean he would have expertise with one or two companies.

What his decision came down to ultimately was his love of higher education and campus life. "The lifestyle was attractive. I enjoyed being a student."

Because he enjoyed his education so much, Merenda hasn’t forgotten what it’s like to be a student. And it is this memory that he says helps keep him fresh in the classroom.

Take the business management class he teaches. He rarely gives a lecture, but students should not think the class is a snap. "The syllabus looks like a textbook—a lot of people get scared away."

Students do in-depth case studies of businesses, their marketing plans, competition, product strategies, and the like. His forty to forty-five students may work on up to eighteen comprehensive cases a semester. Merenda will lecture on five or six, and then students will break into groups to analyze the remaining cases and present their findings. Merenda is the facilitator. He also uses computer simulations, with student groups assuming the role of businesses dealing with inventory, competitors, and other dilemmas.

He tries to achieve variety in the course: "We respond differently, and we all have our own ways of approaching information," he says. "So I mix it up. The case is the focus. The student brings it to life... even if it’s the same, it depends on the audience."

Explaining a case to a group is like planting a seed, Merenda believes. "And you never know when they’ll germinate."

When they do, Merenda notices. "I can pick them out. You can see it in their writing, in their ability to ask the right questions, not just throw the information back at you."

He smiles. "I gain as much as I give in the classroom."

Merenda has left the classroom, albeit briefly, since beginning his teaching career. From 1989 to 1991, he was associate dean at the Whittemore School.

“I was teaching at least one course a semester, but I felt I was losing touch with the students.”

He still takes time to support a busy research schedule, despite his course load. He continues to write cases—analyses of business management problems and practices—from research that has been built on his past consulting. He recently won the Curtis E. Tate Outstanding Casewriter Award from the North American Case Research Association. He also is active in the New Hampshire Industrial Group, working in conjunction with faculty at WSBE and Laval University in Quebec on projects related to regional competitive advantage.

And does he offer any advice to his own family, which continues to operate that flooring business in Everett? No, he says, shaking his head and smiling. He’s not an experienced business professor to the folks back home—he’s just one of the Merenda boys.

by Carmelle Druchniak, writer/editor, University News Bureau
Penetrating culture from within

"This class is one of UNH's shining gems! Russian Intellectual History represents the way the university experience should be, not the public high school mentality of mass communication. After class, groups of participants would gather outside Horton and discuss the big questions—on their own time."

—from a student evaluation

For Cathy Frierson, associate professor of history, this is the greatest compliment a teacher can receive.

"You know you've been successful when you see students gathering outside the class," she says. "Something happens within that classroom discussion that encourages them to become conscious of the values they hold. They become critical thinkers, they become attuned to the debate, and they also learn to see each other as individuals."

Frierson, whose areas of expertise are Russian history and Western Civilization, says teaching is a fine balance between nurturing individuals and imparting information. According to one of her students, her "gift is her amazing ability to get students involved, and her clear interest and enthusiasm for the topic."

"You can't be anonymous in my classroom, and this is difficult for some students," Frierson says. "But much of the learning process occurs through debate, so it's important for students to explore their thoughts on the issues. I want them to be able to explain why they hold the views they hold."

The social and political upheaval Russians are experiencing as the former Soviet Union continues to unravel has made teaching history more timely, relevant, and exciting, says Frierson. Having lived in Russia on five different occasions, she has a first-hand perspective of history-in-the-making.

"I was in Russia when Mikhail Gorbachev was elected, and I was so absorbed by it all. Now, it's interesting to see what students remember about that time in history."

And unlike the Baby Boomers, who were educated during a period when thoughts of the Soviet Union conjured up images of nuclear war, current students remember a country in transition and a little girl from Maine named Samantha Smith.

"Today's college students came into maturity during the Gorbachev era. They are coming to this topic with more open minds than did students five years ago. But they have no real image of Russia, beyond that of poverty and people waiting in long lines for food," Frierson continues. "Because the country is not perceived as a threat anymore, they're not getting as much information about current events."

This, she says, is coupled with the fact that first-year students have a very limited view of European history in general. "Students have no idea of Joseph Stalin's Soviet Union. They know about Hitler, but not about the suffering of the Soviet people under Stalin. Why is this?"

"The reason," she continues, "is that Hitler's victims are our victims. We had access to information from the Holocaust, war-crime trials, and images of victims and their stories. The Soviet Union closed itself off from the world, so Stalin's victims were not heard."

This, she says, is a typical example of how people's views of the world are influenced by the history they have been taught. She explains, as another example, how courses such as Western Civilization influence the ways people perceive reality.

"Western Civ—fondly referred to as 'dead, white male history'—was built on a curriculum of great men, great wars, great books," Frierson explains. "It's the most controversial course being taught right now, because it's considered Eurocentric, ethnocentric, and sexist. Some people want to abandon it altogether."

"While I'll be honest and tell you that I absolutely hated Western Civ as a student, I think it's an important course. Though some teach the course as political history, I prefer to teach it as intellectual and social history. While imperialism was once taught as a great adventure, we now look at the human costs. We examine the advancement of science and what role that played in the Holocaust. We look not only at when the atomic bomb was developed but at what part it played in history."

According to Frierson, the goal is for students to see history from other angles and to penetrate the culture from within, not from the politics above.

Take the former Soviet Union, for example. "People in this country rejoiced at the fall of communism. But the fact is, some things are much worse in Russia now. It's a kind of 'Wild West' world, because there is no common rule of law; it's a very unsafe place to be right now."

"When students leave my class, I hope they look at the world a little differently. While the Soviet Union is no longer a competing super power, they say they're less concerned for themselves but more concerned for the people who live there."

by Sharon Keeler, writer/editor, University News Bureau

Cathy Frierson, who came to UNH in 1991 as an Arthur K. Whitcomb Professor, is the author of two books on Russian history. Frierson has lived in the former Soviet Union five times, and says she will never look at the world the same way.
"I let them land on their own two feet"

Like most people, Gail Rondeau shies away from the "hypodermic." In this case, though, the hypodermic isn’t a needle; it’s the teaching method that requires a student to get "injections" of information and then return the information when a test is given.

According to Rondeau, the hypodermic method often leads students to assume the information given provides the only right answer.

"Who’s to say that my interpretation is the only valid one?" she asks. "I really believe students’ ideas are valid. Certainly I make them defend themselves, but to say my interpretation is the only valid one would be to say their opinions aren’t valuable."

As an English and communications instructor and adviser to first-year and non-traditional students at UNH at Manchester, she has seen students leave the University because they were uncertain about how to deal with their own ideas, particularly when those ideas conflicted with information they gleaned from textbooks, course materials, class lectures, and discussions.

By teaching the introductory composition course, Rondeau is able to reach students before they become discouraged about not having the "right" answers. During the course, she assigns writing exercises that ask students to support and defend their own ideas by asking the question, Why?

"Every time they express an opinion, I tell them to ask themselves, ‘Why?’ at least three times. Eventually I want them to start questioning their own perception of things, to question their own belief and not present it without examining it first."

Using her two-fold teaching method, Rondeau first challenges students to validate their ideas, and then supports them when they successfully defend their points of view. As a result, students begin to gain confidence in their ability to reason and can apply the same process to all levels of their learning.

Rondeau is confident that her teaching style could show students how to learn in any course.

"The content that we give in classes isn’t as important as the process we help them undergo, in terms of their own self discovery," she says. "The purpose is for students to learn to grow."

Although she admits students sometimes consider her standards to be tough, she stresses that she also supports them as they discover their individualized learning process. Accepting the reality that all students do not learn in the same way, she instead gives them a tool to find the way in which they learn most effectively.

"When I give students an assignment, I take on the responsibility to help them gain what they can from that process. Once they become aware of their own learning, they have power."

In fact, when she recently accepted her teaching award, she pointed out that, in her effort to empower students, she will take them to a high point and tell them to jump off, then she also will be at the bottom to catch them.

"But," she adds, "I also reserve the right to step back and let them land on their own two feet."

This spring, Rondeau found her own jumping off point during a hiking trip to Mount Katahdin in Maine and compared the experience to discovering a learning process.

"Once we got to the edges, I really had to fight with myself to continue—as I’m sure my students do sometimes, especially the ones who ask themselves whether they should go to class the next day."

A novice hiker, Rondeau admits that it was an accomplishment simply going up the mountain and coming back down. Without her friends to take her on the trip and support her as she climbed, she says she probably wouldn’t have completed the hike.

"If I can understand what my students are going through," she explains, "then maybe I can help them through those places that are hard for them."

by Florinda Hernandez, editor, Campus Journal
Teaching math from a different angle

Jim Goodberry is enthused about a pair of big, red dice he just brought back from a trip to Las Vegas.

“They’re perfect,” he says. “You can see them from the back of the classroom.”

A craps table is for studying fractions. The golf clubs are for teaching principles of velocity. Liter Coke bottles help with the metric system.

“I put myself in the students’ place,” he says. “What I try to do is pick the most interesting way I’d like to see a topic presented to me.” For Goodberry, that means employing theatrics.

“Each teacher has to be some kind of actor. Each has had problems of one kind or another, but you put it all aside and for that moment, these students are the most important people in the world. To me, the number one mark of a good class is the enthusiasm of the teacher.

“I know, as a student, within the first few minutes of the first class, you can tell whether a teacher cares about the students and the course. And what I try to do with the element of showmanship is get students out of their expectations, their baggage about what a math class is supposed to be.”

Which is probably easier for Goodberry than most, since he’s traced a career path across several fields. Before coming to the Thompson School eight years ago, he’d taught high school and junior high in Durham and Rochester, and served, too, as an assistant principal. “That wasn’t me, though. I’m not a disciplinarian. I’m not intimidating.”

He’d also been an electronic technician with General Electric and an engineer with Pratt & Whitney. For good measure, he operated Goodberry’s Subway Restaurant in Dover and has experience in carpentry. “Oh, and then I was in the Air Force for eight years.”

This background means Goodberry doesn’t have much trouble with students asking, How will I use this in real life?

“With food-service students, for example, I can show them exactly where you use all the accounting. I’ve been there.

“When students tell me what they’re doing in their other courses, I’ll probably have the background to give them concrete examples. When we talk about statistics, I’ll think back to Pratt & Whitney and talk about, say, the probability of parts breaking inside an aircraft engine.

“The Thompson School’s approach is to have its math courses set by the needs of students in their majors: Do they need to prepare a banquet? Do they need to measure and add nutrients to soil? Do they need to know proportions to mix a dosage for a sick horse? Some of these students will be veterinary assistants—they’ll need to know that.

“The whole idea is that math teachers are covering what other teachers need their students to know. The teachers in the other curricula specify to the math instructors what they need for the next course.”

He’s begun speaking with state education officials who are increasingly interested in bringing this applied concept to New Hampshire’s high schools where, as a parallel track to college-prep math, students would be able to take what Goodberry calls technical-prep math.

This emphasis on applied math means it’s through more than props and theatrics that Goodberry breaks the standard math teacher mold. “I’m looking at the field from a different point of view than a pure mathematician,” he says. “It may seem strange, but as a math teacher I can be an advocate for students to be successful in their career choice.”

by Louis Mazzari, writer/editor, University Publications

Jim Goodberry looks at his field from a different point of view than a pure mathematician. A craps table is for studying fractions and golf clubs are for teaching principles of velocity. “I put myself in the students’ place,” says Goodberry. “What I try to do is pick the most interesting way I’d like to see a topic presented to me.”
Tackling health care reform

If Jim Lewis were to caricature the U.S. health care system, he might draw a big patient tied to the ground, being examined by lots of little people, from doctors, lawyers, employers, the government, and insurers, to people who need care, both insured and uninsured.

As an undergraduate majoring in English, Lewis thought Gulliver's Travels was the greatest book ever written.

Teaching about the health-care system, he challenges students to analyze points of view with zest and humor.

At an extra class, post-final, for his course, Intro to the U.S. Health Care System, more than three quarters of the students show up. Smooth, young, impassive faces study Lewis as he begins to lecture at his usual "423 words per minute."

"OK? How many uninsured people are there?" Lewis turns and outlines the question on the board. "There are thirty-five to forty million uninsured in this country."

He swivels back to face the class. "Who are they? Anyone know someone who's lost a job lately? Who's recently been divorced?"

Quite a few people nod their heads.

Lewis draws a graph. "The vast majority of the uninsured reobtain insurance within six to nine months. Who takes care of the uninsured?"

Bristly he outlines ways the uninsured receive care. "Anyone know a short term for that?"

A young woman answers, "Cost-shifting."

In the back, a young man talks quietly to his neighbor. "It's not accessibility. It's who pays."

"How come we can't just fix it?" Lewis asks in mock exasperation with a Texan accent.

A lot of people smile. Their final essay exam question was to present their own health-care proposal.

"Life isn't a multiple-choice test," Lewis comments. "You're not going to fill in a little bubble answer that says 'C'."

After more than a decade consulting in the health-care field, Lewis came to Durham in 1989 from Chicago. He was "burned out on traveling, being in the gray army in the sky heavily armed with briefcases and calculators." And he adds, "We'd had a couple of kids, and I wanted to see them a bit more. And so my wife and I made a major change—we'd never lived on the East Coast or in a small town. And I'd never been an academic."

Beth Liakos, an occupational therapy major, was a student in Lewis's health-care systems class. "In one class we had on ethics, he gave us a list of six people who needed kidney transplants. Three could have them, and three couldn’t. Would you give preference to a child over a person of seventy? Well, my father just got a kidney transplant. Everybody says the system is messed up, but not for me or my family."

"Health care is a field that could easily lend itself to flights of melodrama, but Lewis rarely indulges. "I'm not that idealistic," he insists.

Liakos, though, says, "In his heart, he probably is an idealist. But he knows how complex the issues are, with tort reform and government bureaucracy—with that he's a realist."

Several days later, at a public forum on health care at a local hospital, Lewis moderates a panel of health professionals. These are the players that Lewis has described to his students—doctors, insurers, employers. This is the context: he is preparing them for, not just to navigate, but to master.

He begins, "I've been teaching now for five years and in that time I've only met one student who wasn't born in a hospital. Health care is a big business, but it touches all of us in very personal ways."

by Carrie Sherman, writer/editor, University Publications
"The ulnar nerve passes down the cubital tunnel. You all know what that is? It's your funny bone."

At eight thirty in the morning, a class of juniors twists their arms and thoughtfully probes their elbows. Each student has an outline of the day's lecture, so cubital tunnel is spelled out for them. The slide on the screen shows a cross section of it, and now everyone remembers hitting their not-so-funny bone.

Next is tennis elbow, only it's really the lateral epicondylitis, and then, of course, there's carpal tunnel syndrome.

Maureen Neistadt asks the class, "Who gets this? Keyboard operators? Right. What about check-out clerks? Ice-cream scoopers? See," she points to the screen, "these are the nerves that get inflamed."

Neistadt's class is so well orchestrated that, even for a novice sitting in, the learning curve feels painless.

As part of their final, these students also work in pairs to make hand splints. Neistadt meets with each pair to discuss their splints. Cleanliness counts and one pair jokes about running their splints through the dishwasher, several times.

Neistadt laughs. She has a whole repertoire of appreciative laughs from big and hearty, to a short chuckle, to a pleasant giggle.

Kristin Conoboy, a sophomore majoring in occupational therapy, is one of Neistadt's advisees. "First of all, let me say this, Maureen is great. She meets with all of her advisees each semester in groups of about fifteen or so," says Conoboy.

"She also emphasizes balancing the semester, say taking a very technical course with one that develops other important skills. For instance, she suggested that I take a course in public speaking because it would be helpful for when I have to give in-service oral reports. Also, I just like talking to Maureen."

Most of her students do. And they know how to find her. While Hewitt Hall was being renovated, the OT department was located some distance from the main campus, so Neistadt began holding office hours in the MUB Pub.

"The MUB Pub is more the students' turf," says Neistadt. "I've found that the types of exchanges there were more lively and the students seemed more relaxed. I also find that it's more relaxing for me. I can get my cup of tea and enjoy feeling more a part of their community. So, now I keep MUB Pub hours and my regular office hours, too."

Neistadt's professional experience is both far reaching and pioneering. Her work regarding sexuality and disability helped identify sexuality counseling as an important component of rehabilitation and helped establish guidelines for that work. Neistadt's current interests include working with brain-injured adults, studying client-therapist interaction and collaboration, and developing the occupational therapy curriculum. The common theme throughout her work is adult learning.

"The situation is relative to teaching students in a classroom—we have to help them transfer those academic skills to their eventual practice. We have to make that connection for them. I don't think it happens automatically. Also, students need to have more experience as they go along in the curriculum, working with people who are really living with disability, and that's something we're developing."

Neistadt found her career direction as an undergraduate and recalls that experience. "I volunteered in a nursery school for children with multiple disabilities and was able to observe the different therapies. An OT there showed me how to work with a dressing doll. The children were between the ages of three and six and weren't able to dress themselves—something that most children start to do at age two."

"I just had the sense that being able to dress themselves would make their lives very different. And it would make their parents' lives very different. The idea of being able to help someone with a common, day-to-day task that could make that kind of a difference was very appealing."

by Carrie Sherman, writer/editor, University Publications
Reexamine the truth

Growing up in California, Aline Kuntz used to think of snow as a tourist attraction.

"I had never seen snow except in the Sierra Nevadas and only in the winter. We would simply drive up to the snow, stare at it, and turn around and drive home."

It's quite an adjustment, coming to New Hampshire from a land where snow is a sideshow to common reality. But change is something Kuntz is attracted to naturally. Whether it's change in the weather or the political climate, her attention remains focused.

"I'm just a little past the age where I would have been directly involved in the sixties upheaval, and I was certainly conscious of it. Studying political science struck me as being part of my everyday life. I also had a good friend who was Dutch and worked in the Dutch resistance during World War II. She told me all these stories—how her father was imprisoned for his political beliefs and eventually killed at Dachau—that led me to an interest in Europe. Although I later gravitated toward modern influences and contemporary issues, I actually have a historical bent to the subject, and she's responsible for that."

Kuntz initially thought about going to law school, but found herself leaning toward life in academia. "I find that the university atmosphere gives students the capacity to be able to think about questions and to gain a perspective on contemporary events," she says. "You can step out of your own background, your own prejudices and expectations. There's a constant need to do that and to question what your own convictions are. That ongoing process was really appealing to me."

"When you break down some of the barriers of authority that separate us, when students feel freer to not only ask questions but to advance and try out arguments or think about their convictions, then you have the chance for real interchange between faculty and students."

In her political science class, the European community is up for discussion today. The late-winter storm, one of many this week, has left the twenty-five or so students drenched. Their collective moisture steams up the lecture room. But no one's spirits are dampened. Their attention is held by the pacing, slender figure of Kuntz who occasionally stops in mid-sentence, her eye suddenly holding the glance of a first-row student, her fist punctuating her remark.

"As I was teaching a seminar on the New Left movement in Britain, I discovered that so much of what I was teaching came from a particular set of people. Consequently I decided to write a book on the subject. Now I can come to the seminar, in many cases knowing or having interviewed the people that are being read. I can put into context what my students are reading. That direct relationship between my research and teaching sets up the chance for a truly direct interchange: While I have personal insights into these leaders, the students in my seminar will often have intellectual insights into areas that I had not thought about."

Kuntz's interest in Britain extends to the labor movements of the nineteenth century, particularly that of miners. She finds this insight interesting when contemplating the faculty union struggles at UNH. "If you think of our students as our product, one would prefer not to shut down the assembly line. On the other hand, that's always the issue: that someone else is going to be hurt by what you do. My product is my students. However, I feel that students should have the capacity to question the existing arrangements and authority, and beyond that to understand that there are conflicts in which they may find themselves suffering a bit. And sometimes, one needs to do that."

"Students always come into the classroom with certain beliefs. Most of them are unexamined. What I would like students to do, and especially because I teach political science, is to examine those beliefs. I want them to reflect on the reasons why they think as they do and consider other possibilities and ways of viewing the world."

Her lecture for the day over, Kuntz's students gather their soggy belongings and file back into the relentless weather. Kuntz watches them pick their way through a sea of umbrellas. Her focus eventually shortens, taking in the ice latticework across the window, left by the retreating storm.

"In political science, especially," she says, "what we talk about is made up of news and current events. Students have a sense that somehow there is a 'truth' out there. When you get them to think in a different way, they take another look at the world around them."

by Susan Warner Smith, writer/editor, University Publications
Happy to be here

Question: Why are you here and not somewhere else?
Answer: This is somewhere else.

Boston's Stone & Webster consulting firm seems to have more than its share of University of New Hampshire engineers, says Michael Stetson. He admits he's partly to blame. Stetson hired a fair number of them himself during the nineteen years when "here," for Stetson, meant Stone & Webster.

Four years ago, the former Assistant Chief Engineer of the Civil-Structural Division decided he was devoting too little time to engineering and too much to middle-management chores like locating office space and shuffling personnel. He decided to make a long-delayed move into teaching.

Teaching was his primary interest when he finished his Ph.D. at the University of Illinois in 1971, Stetson says. But a "federal funding cataclysm" meant Stone & Webster were doing well and that was good for the firm.

All the need is guidance." After a pause he adds, "... and someone to make them do twice the work they thought they could."

The approach seems to work. Last year, his first as an assistant professor, Stetson sprinted out of the tenure-track starting gate, winning the University's teaching excellence award in his college.

There's something else about Stetson. This is not his first time at UNH. Look in the 1968 Granite yearbook. Forever bound in the same volume as pictures of Simon and Garfunkel, construction of the Horton Social Science Center, and a rear view of a politician cleverly titled, "Nixon's back," is one of Stetson in a suit and tie. With the exception of four draped in black velvet, all College of Technology seniors posed in suit-and-tie that year.

Here was Michael Stetson, B.S. civil engineering, three years before starting a career at Stone & Webster and twenty-two years before leaving it. Now that he's somewhere else, Stetson is happy to be here. Again.

by Tad Ackman, writer/editor, College of Engineering and Physical Sciences

"All I try to do is say: 'This idea is a really important idea. Grasp this idea.' These students are all bright, motivated people. All they need is guidance."
What lies behind Marc Herold's office door is anyone's guess. Among the half-dozen flyers and brochures dotting the door is a quote from novelist John Dos Passos: "Our only hope will lie in the frail web of understanding of one person for the pain of another." Makes a person think twice before knocking.

There's no answer, since Herold is now striding around the corner, arms full, as he apologizes and unlocks the door with a friendly greeting.

Inside, the clutter is unbelievable. Stacks of paper and books cover almost every spare inch of floor space, giving way only for two chairs and his desk, which is also loaded down with papers and books.

The unexpected twist is that Herold looks oddly out of place in his own office. Here is a man who is anything but disheveled in appearance, and even less so in his thinking.

He speaks and writes fluently in French and German and can hold his own in Spanish. Earning a Ph.D. in economics from the University of California at Berkeley and an engineering degree from a college in Switzerland, he has taught courses on topics ranging from comparative economic systems to critical analyses of the Soviet Union. His conversations are sprinkled with references to his interest in the Spanish Civil War, his visit to Cuba, and his schooling in Switzerland.

Take his applying to UNH for a teaching position back in 1975, for example. There was nothing disheveled about that decision. Back at Berkeley, Herold and his wife had agreed he would apply to public institutions based on their geography alone.

"They had to be north of Monterrey," he explains. "They had to be north of the Mason-Dixon Line, and they had to be on the ocean."

The advantages in coming to UNH were obvious to Herold the first time he drove on to campus in his Volkswagen bus crammed with plants and other belongings.

"I could teach what I was interested in: Third World development, and later, international affairs, women's studies, and post-modernism." What also appealed to him was the Whittemore School's faculty and administration. "It was an easy-going, supportive, cohesive, and interesting place." He smiles. "It was a great decision."

Herold came to UNH by way of a series of decisions. In his early teens, while living in Europe with his family, he developed tuberculosis and was sent to a facility in Switzerland to recuperate. For one year, Herold did little but read and think. "After that year, I was in a kind of quandary."

He went to an engineering school, the European equivalent of M.I.T., and, after graduation, lasted about six weeks in his first job. He decided to return to school, studied math and operations research for a year, then decided to relocate to the United States. Married, and determined to pursue a business degree, Herold ended up at Berkeley, completed both his master's and doctoral degrees, then came to UNH to teach.

"The last thing I ever thought I would be was a faculty member," he says. "Standing in front of a classroom was a daunting task. That war for superior beings."

As a teacher, Herold relentlessly emphasizes the social consequences of all theories, thinking, and action. A purple poster on his wall quotes Pink Floyd: "Did you exchange a walk-on part in the war for a leading role in the cage?"

"I hoist my colors on the flagpole," he says, and students have rarely responded with charges of bias, since they are encouraged to hoist their own colors. In fact, he is pleased with his students' reactions to his teaching style and their willingness to become involved in class.

He laughs while recounting one student's evaluation. The individual had explained that Herold's passion for the material sometimes gets the better of him when he teaches. The student wrote, "Before class, a couple of us should go to your office and belt you a few times to calm you down."

But then again, how would they find him in that office of his?

by Carmelle Druchniak, writer/editor, University News Bureau

"I have a very personal style of teaching," says Marc Herold. "I try to emphasize to students that this is the way I think, and that I'm just one person among many."