WOMEN WHO WILL MAKE A DIFFERENCE IN THE WORLD

Wellesley College

Discover an environment of countless possibilities. Join a community of curious and motivated learners in a place that embraces diversity. Connect with a talented group of women who want to make a difference. Investigate the complex world in which we live. Push boundaries, take intellectual risks, and expand your connection to the world. You can do it at Wellesley College.

REALIZE YOUR ASPIRATIONS. Wellesley's mission unites three aspirations: to educate women, to strive for academic excellence, and to develop graduates whose lives and careers will exemplify an ideal of engagement in the world. Together, these elements have produced a college with a strong sense of identity and a long record of intellectual achievement and distinction, a college that has played a decisive role in shaping leadership models for women. *Andrew Shennan, Dean of the College*

For more than 130 years, outside experts have rated Wellesley as one of the top liberal arts colleges in the country. The College is committed to exposing you to a strong liberal arts and sciences curriculum that will challenge and encourage you to explore who you are and where you want to go. During your Wellesley journey, you will be engaged by rigorous scholarly inquiry. You will acquire the ability to think critically and analyze situations, and you will learn how to be a productive citizen in a rapidly changing global society.

Because Wellesley is a women's college, you will attend classes where women's contributions are honored and where you will polish the skills that will help you become a leader and have an impact on the world. Wellesley College graduates include the first female U.S. secretary of state; the first U.S. presidential candidate; a NASA astronaut; prominent authors, academics, scientists, artists, and broadcast journalists; and Rhodes, Marshall, and Fulbright scholars.

One of the reasons for Wellesley's excellence is its faculty, who are dedicated to undergraduate education and who cherish opportunities to work closely with their students. Wellesley professors stay at the forefront in their careers and have strong connections to graduate schools and employers.

As passionate as Wellesley's students may be about learning and scholarship, they're equally energetic about having fun. You will have opportunities to participate in more than 160 student organizations that cater to a wide range of interests and backgrounds. The College fields excellent varsity sports teams in the competitive Division III athletic conference.

The Wellesley campus extends over 500 acres of woodlands, meadows, and water. Within 30 minutes are the cities of Boston and Cambridge and all their cultural, educational, and entertainment resources.

Wellesley College is a place where you will be encouraged to explore new opportunities, deepen your knowledge, and realize your potential. You will understand not only what it means to *make* a difference, but also how you *can* make a difference. In so doing, you will carry on the tradition of the Wellesley women who have preceded you, many of whom are eager to help you get your start in the world.

At Wellesley, I am constantly challenged and exploring new frontiers as my academic boundaries are pushed further. We are not only stimulated to achieve the impossible, but also encouraged to seek out a personal balance that is central to our overall success. *Bebe Zhao '10*

How do you measure the strength of a Wellesley education? By the breadth and depth of academic programs, research, study abroad, and internship opportunities. By the caliber and accessibility of professors who teach, advise, and mentor students. Above all, by the engaging classroom experience, diverse student perspectives, expansive choices, and network of support, all of which create an atmosphere of possibility.

FOUNDATIONS FOR SUCCESS. Academics at Wellesley may be unlike anything you've experienced before. You'll work collaboratively with professors within a vibrant intellectual community. You'll be actively engaged in classroom learning and hands-on experiences. And you'll develop exceptional skills in writing, reasoning, and analysis—the foundations for success in any endeavor. A Wellesley education enables you to become the best version of yourself.

CHOOSE FROM OVER 1,000 COURSES. The opportunities for fulfilling your intellectual curiosity at Wellesley are endless. You may choose from more than 1,000 courses. And, at the end of your sophomore year, after you have had a chance to discover your academic passions and interests, you will choose a major from among 30 departmental majors and 24 interdepartmental or structured individual majors. You also may construct your own individual major by combining traditional subjects in ways that suit your interests and personality.

Many students choose to double major or create individual majors in areas such as urban studies and bioethics. The possibilities are endless.

INTERACT IN SMALL CLASSES. Wellesley professors teach their own courses. No classes are taught by teaching assistants. With a student–faculty ratio of 8 to 1, classes are small enough for you to receive personal attention, yet large and diverse enough to foster debate and the exchange of information. Classes at Wellesley typically range in size from 15 to 20 students, depending on the level of instruction. Professors understand how you learn and what interests you. At the forefront of research in their disciplines, they pass that knowledge on to you.

EXPLORE THE CURRICULUM. Although you have the freedom to design your own course of study, Wellesley believes that a quality liberal arts and sciences education must be built upon a comprehensive foundation. Therefore, you are required to take courses in seven of the following eight areas: language and literature; visual arts, music, theatre, film, and video; social and behavioral analysis; epistemology and cognition; religion, ethics, and moral philosophy; historical studies; natural and physical science; and mathematical modeling and problem solving. You also must demonstrate proficiency in a foreign language and take at least one multicultural course, a writing course, and a course in quantitative reasoning. The goal is to expose you to a wide range of issues and ideas that will broaden your knowledge and your worldview.

BENEFIT FROM ACADEMIC SUPPORT. With its comprehensive peer tutoring and faculty development programs, the Pforzheimer Learning and Teaching Center (PLTC) in the Clapp Library provides critical academic support to students and faculty. The PLTC offers activities that extend throughout all departments, as well as writing and public speaking tutors.

PURSUE THE HONORS PROGRAM. If you excel in your major, you may pursue a Departmental Honors Program. This highly selective program gives exceptional students a chance to delve even deeper into intellectual pursuits, along with the rewards of individual guidance.

It was quite a shock to walk into my very first class at Wellesley, Medieval Women Writers, and see only eight students—including juniors and seniors, who came from all over the country and offered diverse perspectives. The professor was an expert in her field, and the class functioned like a seminar, generating numerous lively discussions.

Jeanine Navarrete '10

COLLABORATE WITH PROFESSORS

KATHARINE MOON

PROFESSOR OF POLITICAL SCIENCE

Wellesley professors wear many hats. Sure, some are just to keep warm during New England winters, but most involve the various roles they take on at the College—teacher, advisor, and collaborator.

Recently, Professor of Political Science Katharine Moon has been all of those things to one student: Erin Choi '10. Moon and Choi coauthored a paper on nationalism and the politics of international adoption and then presented it in March 2009 at a professional academic conference. "It's very rare for an undergraduate to have that kind of experience, but she was so good," Moon says.

While Moon typically employs one or two research assistants a semester, this was the first time she invited an undergraduate student to collaborate with her on a paper. "I had the feeling that it would open up a whole new world to her—not only to do the research, but also to do the analytical work," explains Moon. From the onset of the project, the two worked closely together, brainstorming and analyzing ideas. "It was a really collaborative experience," Moon says.

And while Choi certainly learned a lot, so did her professor. "It was exciting," Moon recalls. "I had to play several roles. One was to truly be a co-researcher and give her full license to explore original ideas and insights." The other major role Moon had to play was a familiar one: teacher. "I had to make sure that Erin was being guided in doing the analysis and that she was learning how to do research at the scholarship level," Moon says. In addition, she encouraged her to think about how this research could lead to a senior thesis and graduate school.

I believe in a liberal arts education in the sense that even though these are political science courses, students should be able to incorporate sources or materials that they might find in other disciplines. *Katharine Moon, Professor of Political Science*

Moon was confident that presenting the paper at an academic conference was an important experience for Choi to have as well. "I really wanted Erin to have full exposure to what the world of academics would be on a professional level," Moon adds. "It was quite an experience, not only for her, but also for the academics who watched this undergraduate perform so well."

KARL E. (CHIP) CASE

PROFESSOR OF ECONOMICS

The buzzword in education these days is "hands-on learning." In Urban Economics, taught by Coman/Hepburn Professor of Economics Chip Case, this is what hands-on learning looks like: "In my class, students have to go through the process of buying a house. They must attend an open house, prepare an offer, figure out the front-end costs and the full monthly costs, including the points and closing costs. Then, in class, we can talk about the housing market," Case says.

"We talk about the structure of a city with big office towers, so I assign each of them a building. I want to know who's in the building, how many employees, how many square feet, what's the per-square-foot rent, who owns the building, and what percent is vacant. Then we can talk about development—who builds these buildings, why do they build them, how do they get financed? To understand the economics of cities, you have to understand that."

Case's students also have to visit a subsidized-housing project and interview people to determine who lives there and how many are on the waiting list. In his class on public finance, Case gives students a complicated set of data on a family and requires them to fill out a 17-page tax return. "Then we can talk about the tax system, because otherwise they don't know," notes Case. The value of these exercises is to make learning more relevant and to enrich the content.

RECIPROCALLY REWARDING

ERIN CHOI '10

MAJORS: SPANISH AND POLITICAL SCIENCE

HOME: LOS ANGELES, CALIFORNIA

"Writing and presenting a paper with Professor Moon was one of the most intellectually rewarding experiences I have had at Wellesley," says Erin Choi *(below right)*. "My favorite memory includes going to her office after doing research to simply talk. We spent hours discussing, examining, and ruminating over our research. We pounded out ideas and critiqued each other's arguments. Although I often left her office with a throbbing head, I also felt immensely gratified and invigorated."

Erin traveled to Chicago with Professor Moon to present their paper at an academic conference *(see profile above)*. "She has been a teacher, mentor, and role model for me, so it was a great honor to stand next to her at the conference and share our work with other scholars.

"Through the process of writing and presenting our paper, Professor Moon continually tested my limits and challenged me to go beyond what I thought I was capable of doing. I am deeply grateful to her for believing in me. Our intellectual and personal relationship has immeasurably enriched my learning experience at Wellesley."

ENGAGE IN HANDS-ON LEARNING

BRITT ARGOW
ASSISTANT PROFESSOR OF GEOSCIENCES

On the first day of Assistant Professor Britt Argow's seminar on coastal sedimentology, she collected the 12 enrolled students and drove them to Crane Beach in Ipswich, Massachusetts. "We walked up over the dunes and sat at the lookout at the top," she says. The next words out of her mouth were: "Five observations. Go!"

Argow is a coastal sedimentologist who studies the way sediment moves along a coastline. Her courses in the Geosciences Department and in the Environmental Studies program emphasize an experimental style of learning that is hands on, inquiry based, interesting, and fun.

Consider her first-year seminar, which met twice weekly: one day of classroom discussion and the other spent out in the field. The students had a textbook for background information, which allowed them to jump in to the discussion at a higher level. To get them to act like researchers, Argow asked them to problem-solve: for example, to discover how to calculate the tidal range (the vertical distance between the high and low tides) at a given beach. "A lot of science is actually figuring out what data you need, then figuring out how to get it. That process was something I wanted the students to explore without the threat of failure. Instead of the idea that science is something that we memorize, that is known, that you get right or wrong—how about the idea that science is about processes that you can observe, intuit, or figure out?"

She explains, "Our students are attracted to fields where they can see the applications for societal problems. By having that link to society as a framework, and then gaining hard skills and knowledge in science, they figure the facts out or put them together in a way that generates the next level of information."

Argow believes that, with new teaching techniques, more students can get hooked—and stay hooked on science. "And even if they don't stay in the sciences, some of my students will go on to become CEOs and congresswomen," she says. "If they understand how the world works physically, that may inform some of the decisions they make in seemingly separate arenas."

The best way to teach students about almost anything in the social sciences is not by sitting in the classroom—it's by engaging them in the processes of research. *Craig Murphy, Professor of Political Science*

WRITE ON

Whether first-year students enter Wellesley hoping to become accomplished historians or musicians, economists or chemists, the College has dedicated itself to ensuring that they will graduate as accomplished, convincing writers. And Wellesley is delivering on that promise with an innovative, unsung—and, yes, tough—required Writing Program, putting itself at the forefront of an academic movement to reinvest in the teaching of writing.

The Writing Program poses a unique challenge to students: to see their writing not as an academic exercise or merely an outlet for creative expression, but as one of the most powerful tools they have to present their ideas to the world. Approximately half of the faculty—from art to chemistry to economics—have taught Writing 125 since this program began in the mid 1980s. By collaborating intensively, they learn how to become better teachers of writing within their own disciplines. They also think about what good writing means in the work they assign students: the essay topic, the lab report, and the term paper.

"We teach students how to make a convincing written argument—to have a point of view, to learn to state a claim, and to provide evidence in support of that claim," says Associate Professor and Chair of Economics Ann Velenchik, who is also Director of the Writing Program. Her course, Wealth and Poverty in America, is among the most popular sections of Writing 125. "I make them write like economists. I don't want 85 adjectives when one noun would be better," she says. "I want them to learn how to use evidence, and not just think that asserting something a couple of times makes it true."

A WRITING 125 SAMPLER

The Wire and the American City
Watching the Supreme Court
The Image of Islam in Western Literature, Media, and the Arts
Lies, Damned Lies, and Statistics
Athletes and Artists
The International Short Story
The Human Brain: A Case Study Approach
Electric Power and the Environment
Macbeth: Shakespeare's Anatomy of Evil
Critical Interpretation

GO DEEPLY GREEN

JOHANNAH MURPHY '09
MAJOR: CHEMISTRY
ELIZA MURPHY '10
MAJOR: STUDIO ART
HOME: FRAMINGHAM, MASSACHUSETTS

Johannah and Eliza Murphy want to get their hands dirty. In fact, that's the way they prefer it.

After spending a summer working on a community organic farm, Johannah wanted to continue her sustainable agriculture work on campus. With the help of sister Eliza, as well as the president of the College, and the co-chair of Wellesley's Sustainability Committee, she achieved just that.

The sisters secured a plot of land in the College-owned community gardens about a mile from campus, in what used to be known as the "Victory Gardens" from their origins in World War II. The land had not been used in several years, however, so the sisters had their work cut out for them: clearing debris, tilling the soil, planting, weeding, hoisting a fence, and building a trellis for the tomato plants. Eliza nursed seedlings through the early spring in her residence hall living room until they were ready to be planted. Soon, other students pitched in as well, and the garden took off.

The Murphys donated their produce to Boston-area food shelters during the summer, connected with small local farms to borrow tools, and obtained compost and seedlings. Last fall, they began selling produce to Wellesley dining halls.

Both sisters are dedicated to sustainability, especially as it relates to progress. "It doesn't have to be a huge human-rights issue," Johannah says. "It can just be that the carrot tastes better, it was grown organically without pesticides right in front of you—that can be a huge way of connecting."

Sustainability is a key issue across the board in terms of social justice. It's an organic, right, all-the-time way to promote change. *Johannah Murphy '09*

LEARN LOCALLY, ACT GLOBALLY

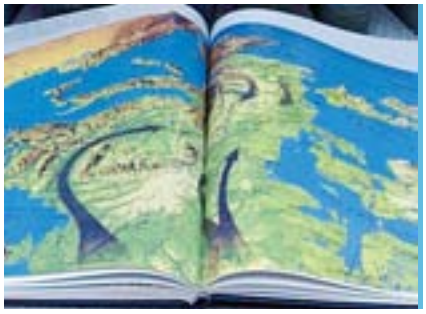
BETH DESOMBRE
PROFESSOR OF ENVIRONMENTAL STUDIES AND
PROFESSOR OF POLITICAL SCIENCE

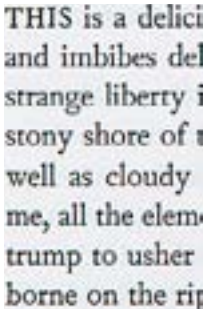
The value of a liberal arts education becomes crystal-clear when you walk into the classroom of Frost Professor of Environmental Studies Beth DeSombre in Wellesley's Environmental Studies program.

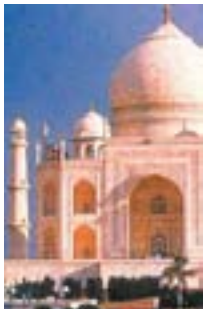
DeSombre embraces and embodies two values the College holds dear: Students learn best when they are able to apply their readings and coursework to their lives, and a truly learned student has a working knowledge of many different disciplines. By combining the skills from science, political science, philosophy, and economics, this program helps students with the mental calculus required to become a responsible citizen in the modern world.

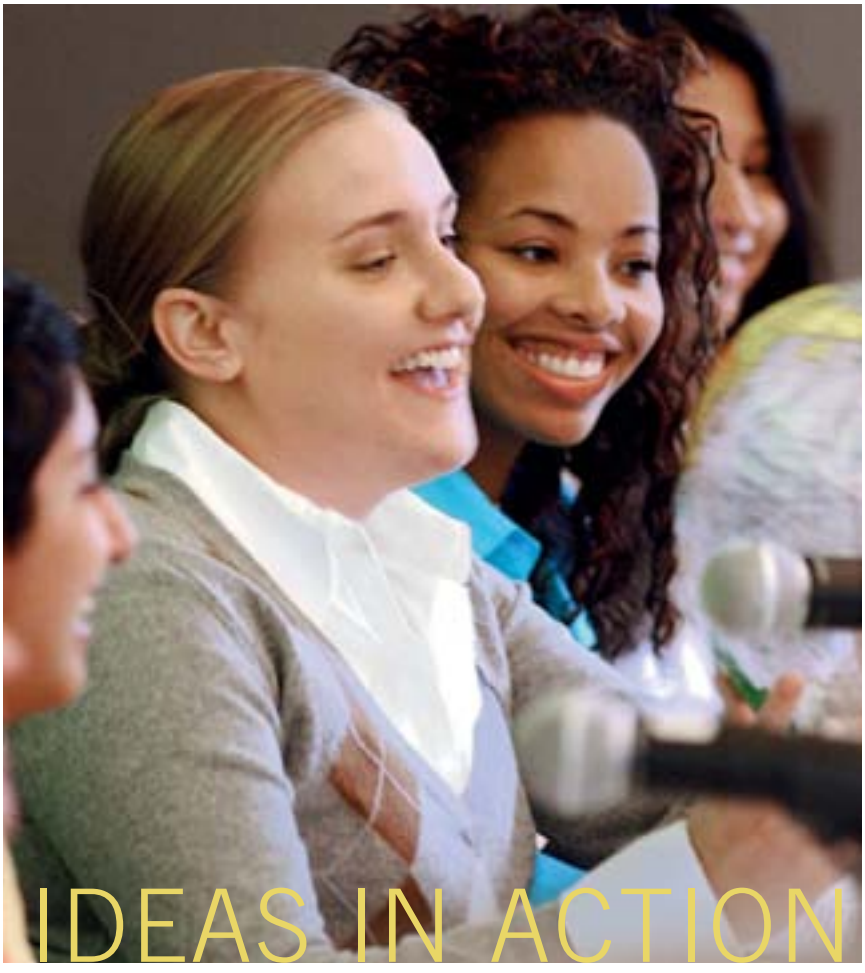
"Environmental Studies brings together the types of learning we should all be doing in college," she says. "There are phenomena you can't understand unless you consider these things simultaneously. In understanding the global problem of biodiversity loss or ozone depletion, you will have an incomplete understanding of what to do if you only understand the science or the economics of it. And even if you do understand those aspects, if you don't apply an ethical or philosophical perspective, you will miss some broader concerns. For example, you have to think about the economic horizons when considering policy implications affecting current and future generations. There is no political or economic process to account for the impacts on future generations. You need to have a philosophical or an ethical approach to take those needs into account."

A CLOSER LOOK AT THE LIBERAL ARTS AND HUMANITIES









IDEAS IN ACTION

DAN CHIASSON *(left)*
PROFESSOR OF ENGLISH
POETRY EDITOR, *PARIS REVIEW*

You just have to exist inside language pretty self-consciously in a different way, where you're always looking at what you read, what your friends talk about, your own thoughts, for what might make it into a poem. I think the key is to set the dial to the right frequency. And it seems to work. When I tell students that, their poems become immediately more interesting.

Courtney Sato was awarded a 2009 Thomas J. Watson Fellowship for independent study and travel outside the United States. Her project, "Writing Toward Home: Tracing Poets and Places," will take her to France, Ireland, the United Kingdom, St. Lucia, Trinidad and Tobago, the Czech Republic, and Germany.

COURTNEY SATO '09
MAJOR: ENGLISH
HOME: HONOLULU, HAWAII

When Courtney Sato was a high school student in Hawaii, she would write poems in her house by a window with a view of a mountain range, enjoying the shifting shadows at the end of the day. "It's difficult to explain," she says, but "there's something either anxious or settling about dusk that I really like."

She's branched out since then, finding inspiration in the airy fourth floor of the Campus Center, watching students go about their lives on the campus below, and in cafés and libraries in Boston, listening in on other people's conversations for turns of phrase that jump out at her. "I just try to write about the newness of things," she explains, like a "first luminous spring" away from home in New England.

Courtney is constantly pushed by poets (and professors) Frank Bidart and Dan Chiasson in the English Department. She feels fortunate to have the input of these two poets, who often give her very different feedback on the same poem. "Ultimately, it's my responsibility as a writer to think about what they've said and then to filter that, to think about what I'm actually trying to write," she says.

WHAT MAKES A MEMORABLE TEACHER? Intellectual and academic excellence, of course. But also, a commitment to their students, a passion for their research, and a drive to engage and inspire. The diverse Wellesley faculty—accomplished scholars in their fields—embrace teaching as their primary mission.

Every class at Wellesley is taught by a professor—even introductory classes, something that is not true at large universities or research institutions. At some point in our lives, we encounter the best teacher we've ever had. For most Wellesley students, this happens here.

Each professor teaches only two courses per semester, which means they have time for research and scholarship and time to get to know their students. When you are ready to graduate, you will have faculty members who are not only eager to write you a recommendation for graduate school or a job application, but also are qualified to do so.

QUALITY OF TEACHING. According to students, the high-quality teaching at Wellesley is attributable to at least two things: dedication of faculty to their academic fields and the respect they show for their students.

Many professors are consumed by their efforts to keep material fresh. They stay current with research and explore new teaching methodologies; some make liberal use of new instructional technologies to turn their classes into multimedia events.

Professors see learning as a dynamic process where information is exchanged back and forth between teacher and student. This exchange improves the quality of learning, instruction, and the classroom experience by keeping the subject matter relevant and everyone's interest alive.

A FACULTY WITH EXPERIENCE AND RECOGNITION. The Wellesley faculty includes scholars who are regularly called upon by other institutions, the media, and government to offer their advice and expertise. Nearly 100 percent of the tenured and tenure-track faculty hold doctoral degrees or the equivalent. In recent years, faculty members received grants or fellowships in support of their teaching and scholarship from institutions that included: the Alfred P. Sloan Foundation, the American Philosophical Society, the Ford Foundation, the Fulbright Scholar Foundation, the National Institutes of Health, NASA, and the National Science Foundation.

Geography is one reason why Wellesley has little difficulty attracting experienced and knowledgeable professors. Wellesley's proximity to Boston provides easy access to one of the best scholarly environments in the nation, and possibly the world.

DIVERSITY OF FACULTY. Wellesley believes that having a diverse faculty presents good role models for all students. It contributes to the exceptionally high percentage of women hailing from women's colleges who go on to scientific careers or who take jobs across all disciplines in academia. Women occupy 59 percent of the faculty positions at the College. Many work in fields that are traditionally male dominated. In the sciences, 53 percent of the faculty are women, about 15 percent of tenured science faculty are women and men of color, and 17 percent of all the faculty in biology, mathematics, physics, and chemistry are from multicultural backgrounds. The same focused effort to attract professors from multicultural backgrounds applies in all departments.

FACULTY

Total full-time and part-time faculty: 352

Faculty who hold a Ph.D. or the highest degree in their field: 98 percent

Student-faculty ratio: 8:1

Number of courses taught per semester by each professor: 2

Number of courses taught by teaching assistants: 0

ACCESS PROFESSORS, EQUIPMENT, BOSTON

NANCY H. KOLODNY '64
PROFESSOR OF CHEMISTRY

"Even the most senior faculty members teach introductory courses in the sciences," says Cohen/Heller Professor of Chemistry Nancy H. Kolodny. "I love teaching introductory courses because I enjoy seeing students become excited about chemistry, often for the first time. Students taking science courses work one on one with faculty members, many of whom are cutting-edge researchers.

"Our microMRI system, a highly unusual piece of equipment for an undergraduate institution, enables us to study neural development in smaller animals such as mice and crayfish. That is the type of opportunity that makes Wellesley unique. At Wellesley, students learn how to function as professionals in the sciences. Student researchers who coauthor faculty publications are often invited to scientific meetings. People are shocked to find out that these Wellesley students are undergraduates."

Kolodny believes that being in the Boston/Cambridge area provides incredible benefits for the Wellesley scientific community. "Many faculty members collaborate with local institutions, providing additional resources for students, including access to extensive equipment and laboratories, such as Harvard Medical School. Boston also attracts many prestigious speakers and events, scientific and otherwise."

SCHOOLING THE PROFESSOR

KATE BROGAN
ASSOCIATE PROFESSOR OF ENGLISH

At Wellesley, professors are still learning—occasionally with the help of a colleague or even their students. And sometimes, it's both.

Faculty seminars—where a visiting professor or faculty member presents on a subject—are just one of the ways that Wellesley encourages faculty development and learning. That learning can lead to new research areas or possibly the creation of a new course. In the case of Professors Lee Cuba and Kate Brogan, it led to Images of the American City, an interdisciplinary course that looks at different perspectives on American cities.

Professor of Sociology Lee Cuba had previously taught a course on urban sociology, and Associate Professor of English Kate Brogan taught a course on representations of New York City in literature and art. So, when they both attended a faculty seminar on cities around the world, something clicked. "We decided to bring together Lee's expertise in urban sociology with my understanding of the ways that cities are represented in literary texts," Brogan says.

The class premiered in the fall of 2008. "I think it was a good learning experience for the teachers as well as for the students," notes Brogan. "Because the city is an enormous topic, we all benefited from approaching the subject from multiple perspectives."

That kind of interdisciplinary approach offers something special to students, Cuba says. "In a class like this, we help students cross boundaries. We see students who are familiar or comfortable in one genre becoming more familiar or being pushed a little bit to another area," he says.

And if the students crossed boundaries, so did the professors. "The class not only included students majoring in sociology and literature, but also drew students with strong interests in environmentalism, photography, and urban politics," Brogan emphasizes. And those students brought something new to the table. "I enjoyed learning about aspects of the city that I'm less familiar with," she adds.

With the class slated again for the fall, Brogan and Cuba are already looking for new things to learn—and to teach. "Our plan for the fall is to include more 21st-century material," Brogan says. "We'll continue to think about better ways to use our proximity to Boston for firsthand learning about cities. We're always looking to make learning, inside and outside the classroom, a richer experience."

PI MAKER

STANLEY CHANG
ASSOCIATE PROFESSOR OF MATHEMATICS

Home is where the pie is. Or is that pi?

Every March 14, Associate Professor of Mathematics Stanley Chang offers pie and a lecture to math students celebrating Pi Day. "We have pie and ice cream at 8:30 in the morning, and I give them a little lecture about why pi is cool," he explains. That's just one of the things the Math Department does to make things more, well, homey while still teaching a difficult subject. "We are a rigorous program that does hard work, but with a human side as well," Chang says.

"In the Math Department, we try very hard to give our students the feeling that this is actually a home for them, because math can be very challenging and students may need support," notes Chang. And a big part of that support comes from office hours.

"The bulk of one's teaching does not happen in the classroom," Chang says. "I think most mathematics is learned when you're having a conversation with somebody rather than being lectured to."

Those conversations often happen during Chang's office hours—or occasionally over some bubble tea. "I used to have a bunch of groupies that followed me around everywhere," Chang laughs. After these students graduated, the group still remained friends. "We called ourselves Team Boba."

And while not every student goes out for tea with their math professor, the support that they need is always available. "My students do work together a lot on problem sets," he says, "and they often come to office hours and just . . . work. Hours can go by and they will not have spoken a word to me," he says. "They're trying to figure things out on their own, so they come to my office for moral support."

And while Chang points out that mathematics is actually much more collaborative than people expect, there is a certain amount of independent thought required. He encourages that independence, as well. Recently, Chang did a summer-long independent study with one of his students. "At the end, we actually derived some interesting results," he says. "And it was a good experience. She made some money and did some math."

STUDENT-FACULTY RESEARCH AND COLLABORATION

One of the advantages of going to a small liberal arts and sciences college is the opportunity to become a research partner with faculty on projects at the undergraduate level. At Wellesley, students conduct research across all disciplines.

Each year, more than 400 students participate in guided research, independent study, or senior thesis research across all disciplines. These collaborations between faculty and students encourage the development of continuing academic partnerships.

One of the great strengths of a Wellesley education in the sciences is the opportunity for collaborative faculty-student research projects. The results frequently appear in prestigious journals and presentations at professional meetings—outcomes that are of great benefit to our students.

William F. Coleman, Professor of Chemistry

In many cases, professors will rely on the student's data to inform their findings and conclusions. In fact, a number of students coauthor articles that are published in scientific journals and other professional publications and attend academic conferences.

PARTICIPATION IN RESEARCH. You may take one-semester projects for credit, yearlong senior honors research, or faculty research during the summer. To do research in a particular field, you do not have to be a major in that area. Research opportunities are supported by grants from Wellesley and outside organizations, such as the National Science Foundation, the Howard Hughes Medical Institute, and the National Endowment for the Humanities. Students have access to sophisticated, state-of-the-art equipment, such as the confocal and electronic microscope, mass spectrophotometers (MALDI-TOFF), inductively coupled plasma atomic emission spectrometer (ICP-AES), and equipment for advanced molecular biology techniques, including an automated sequencer.

SAMPLE RESEARCH PROJECTS

SOCIAL SCIENCES

History of the Use of Precision-Guided Munitions
The Transnational Antisweatshop Movement: Realities and Politics of the Global Labor Market
The Economic Consequences of Freeing the Grapes
The Effect of Imaginary Companions on Preschoolers' Play
The Culture of Secrecy

SCIENCE AND TECHNOLOGY

Do I Know You? Determining How the Brain Processes
A Provably Better World: Improving Health and Advancing Chemistry Using Computational Optimization
Curing Cancer and Hepatitis C: One Beaker at a Time
Chaotic Orbits of Uranian Moons
Leeches Suck…Then Shrink!
Nutrition and Brain Disorders: You Are What Your Mother Ate

ARTS AND HUMANITIES

The Midwife of History: Hannah Arendt, Frantz Fanon, and the Concept of Political Violence
"Nothing is until it has a word": The Poetry of Gillian Clarke
Uncommon Ragtime: The Xylophone Rags of George Hamilton Green
Real Men Wear Sequins: Performing Gender on the Takarazuka Stage
White Girls in Love with Hip-Hop: Exploring the Racial Implications of White Female Rappers

More on research at Wellesley:
www.wellesley.edu/DeanCollege/Ruhlman/home.html

PHYSICS EVERYWHERE

COURTNEY LANNERT
ASSISTANT PROFESSOR OF PHYSICS

Assistant Professor of Physics Courtney Lannert is not afraid to get messy. Mostly because she knows she won't.

"I have a confidence in the physics analysis," Lannert says. "I know what's going to happen." So, when she has students hold

an ordinary bed sheet (loosely), and when another student winds up to throw an egg at the sheet (as hard as she can), Lannert is confident she won't end up with egg on her face. And she's only ended up with egg on her floor once or twice. "When they're trying to throw really hard, students do miss the sheet," she laughs. "So as long as they don't miss the sheet, they cannot break the egg."

The egg hurl is a demonstration Lannert uses in her introductory physics class to explain the principles behind such things as automotive airbags. "When an airbag inflates in your car, it's acting like the sheet to the egg that is your head, bringing your head to a stop, but very gently," she says. Even after only the first few weeks of class, the students already have the physics knowledge to calculate and understand such phenomena.

"One of the things that's great about introductory-level physics is it's all about the physics of things that are in our everyday experience," Lannert explains. "It's about trying to predict what's going to happen in a particular situation, and demonstrations are a way of bringing that to the forefront."

A theoretical physicist, Lannert is currently researching systems with magnetism, which is a result of the quantum nature of the electrons in the material; she also is researching the physics of very, very cold trapped atoms.

"There is a perception that this is a field that you can't understand until graduate school, and I just don't think that's true." She supervises a number of independent study projects with students, and they frequently present their work at professional physics meetings.

"I think part of the reason why many promising students go to liberal arts colleges is that they have the chance to be the dominant focus of the faculty there," Lannert says. "I want to give students the experience of having real ownership of a particular project—one they can understand all the way down to its foundation."

AT HOME IN THE WORLD

LEE CUBA

PROFESSOR OF SOCIOLOGY

For over 20 years, Professor of Sociology Lee Cuba has been working on the same question.

"Throughout my entire career, I've been studying place identity," Cuba says. "I'm interested in how people who did not grow up in a place come to feel at home after they move there." First, that question led him to Alaska to study people living on the "last frontier," and then he studied people who moved to Cape Cod after they retired. Now, that same question has led him to his own backyard: college.

Cuba is working with the New England Consortium on Assessment and Student Learning on a long-term study of students at seven liberal arts colleges in New England. "One of the questions that motivates the work for me is: What does it mean to feel at home at Wellesley College?" he says. "And when students say that, what do they mean by it?"

The study not only has students as its subjects, but students also have taken on significant roles in the work itself. "We started out with the role of students to be an interviewer of other students," Cuba recalls. "But now they've gone on to code the data, analyze the data, give presentations on the data, write the interview and survey questions that we use in the study—they've become very, very integral to the whole design and life of the project."

The project involves interviewing 36 students from the class of 2010 at each college over their four years there. The study aims to answer a number of questions from "How do academic and social integration vary over time?" to "How do our institutional practices and policies affect student learning?" But it's not just a study, Cuba says. "It's an assessment project, too, trying to see how we can do it better."

And that makes it much more exciting for student researchers. Not only are they working alongside faculty and administrators, but also they are presenting results and suggestions for change. "It's really been a fabulous way for students to have wonderful research experience as part of a team even larger than Wellesley," Cuba says, "but also they're doing things that people at colleges are listening to."

DIGGING DEEPER

CLAIRE DROSTE '10

MAJORS: RELIGION AND SOCIOLOGY

HOMETOWN: DOW, ILLINOIS

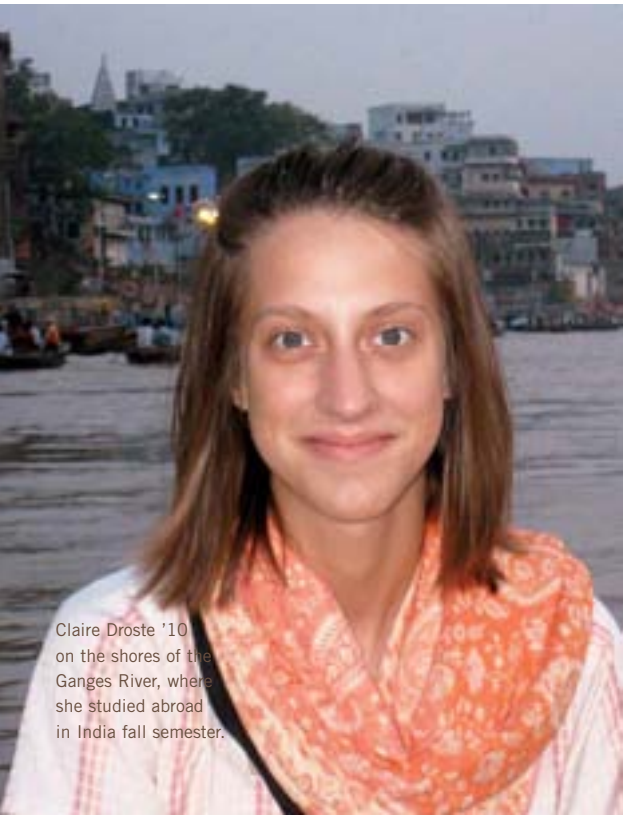
Claire Droste went from being a wide-eyed first-year student to a trusted collaborator in virtually no time at all. When she started at Wellesley, Claire just happened to be in an orientation session with Professor of Sociology Lee Cuba. He plugged the course he was teaching that fall, and she ended up taking it. "I knew nothing about sociology. I couldn't have told you what it meant," she laughs. "But I ended up falling in love with the subject." And when the class was over, Cuba asked if she would be interested in participating in a summer research session. It was an offer she couldn't refuse.

That summer, Claire began to work on the results from interviews conducted as part of a long-term study of students at seven liberal arts colleges in New England. After reading through some of the transcripts, Claire chose the topic that most interested her: first-year advising. "It's a topic I'm pretty passionate about because I think advising is a big part of the experience here at Wellesley," she says.

At the end of the session, Claire presented her work to other students and faculty members also working on social science research that summer. "It was the first analysis that had been done with the data," she adds. "So it was very exciting that they were trusting this first-year student who didn't have any idea what she was doing."

Since that summer, Claire has continued working on the study, doing everything from interviewing students to coding and analyzing data. "It's allowed me to contribute to phases of a very important and relevant project that most undergraduates would never even dream of," she says. "You're not just a student or an advisee or an assistant, you're actually contributing something valuable to research that's going to have some significance."

And along the way, she's learned valuable skills that don't just apply to the study itself. "The skills that I've developed through my involvement with this project have allowed me to go so much deeper in my classroom studies," Claire explains. She will continue to apply those skills during her senior year. Not only will she be working on a senior thesis for the Religion Department, but also she intends to do an independent study focusing on first-year advising. "I am so excited to put to meaningful use what I've learned with this project," Claire says.



Claire Droste '10 on the shores of the Ganges River, where she studied abroad in India fall semester.

Presenting in front of faculty, deans, and institutional researchers was definitely intimidating. But it was also exciting that they were willing to listen to us on a level that showed they respected what we've been doing.

Claire Droste '10

A ROLE MODEL FOR YOUNG SCIENTISTS

JOANNE BERGER-SWEENEY
PROFESSOR OF BIOLOGICAL SCIENCES AND ASSOCIATE DEAN OF THE COLLEGE

As a result of international recognition for her work on brain disorders affecting memory, cognition, and developmental disorders, Joanne Berger-Sweeney's students are participating in groundbreaking research with her.

For more than 20 years, Berger-Sweeney, who is Dean of the College and Russell Professor of Biological Sciences, has being conducting research on issues related to Rett syndrome, an autism-spectrum disorder that is one of the most common causes of mental retardation in females. It is one of the first autistic disorders for which researchers now understand its genetic basis. In recent years, a long-awaited "mouse model" for Rett syndrome was genetically engineered, and Berger-Sweeney's laboratory has characterized behavior, anatomy, and neurochemical parameters in these mice, as well as therapeutics treatments. More recently, she has been working with models of schizophrenia and autism.

Several students in Berger-Sweeney's lab are working with research associates on this project. "My teaching at Wellesley is inextricably linked to my research," she says. "This year, two of my students went to an international neuroscience meeting in the Bahamas to present our newest research results. In fact, about half the publications coming out of my lab have students as coauthors."

Students who leave her labs are well prepared and positioned to continue work in graduate research. Berger-Sweeney frequently bumps into former students at scientific meetings. Some continue to come for her for references for graduate school and jobs, contacts, or advice on scientific papers.

She also has an opportunity to offer mentoring opportunities to other women of color. "There are not a lot of women of color in the field," she notes. "I have been so pleased that, in over a decade at Wellesley, I have had more than 10 black females in my lab who are now in medical school or in graduate school in neuroscience. It's clear to me that having a role model makes a difference. When I see my students going to literally the best graduate programs in the world and excelling, I know I've done my job well. I can't think of anyone who came out of my research labs who couldn't choose where she wanted to go."

NOLAN FLYNN
ASSISTANT PROFESSOR OF CHEMISTRY

"I am not a research advisor who peeks over shoulders," says Chemistry Professor Nolan Flynn, whose research students are creating gel-like materials called hydrogels, which may eventually deliver drugs into the body. "You can learn more by doing something incorrectly than by being told the correct way. A student's first pass is to come up with an experiment to alleviate a problem. I am the backup. Giving students this independence not only builds self-confidence, but also is one of the major benefits of working in the research lab. The sense of ownership really drives students forward and ultimately makes them better researchers. The students collect the vast majority of the data that's produced in my lab. It is what helps move my research forward."

SCIENTIFIC REACTION

LINDA GUINEY '09
MAJOR: CHEMISTRY
HOME: PLYMOUTH, MASSACHUSETTS

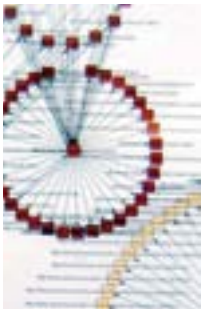
As a chemistry major, Linda Guiney understands the microscopic molecular activity that occurs when two substances interact. But she most enjoys working with what she can touch and see. As part of Chemistry Professor Nolan Flynn's research team, Linda is conducting research on the use of hydrogels, a material similar in consistency to a contact lens, as a drug delivery system in humans.

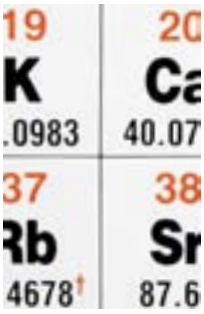
"I like this work because it's clearly a hands-on experience," explains Linda, who also plays club soccer and rugby. She began working in the lab in the spring of her first year. "There are about 10 of us, and we all follow the progress in one another's projects. We meet with Nolan every two weeks to give him an update and let him know about any problems we've encountered so that we can brainstorm possible solutions. It's a very fun group."

As a sophomore, Linda presented her research in Chicago at the American Chemical Society's conference for undergraduates. "It was an absolutely fantastic experience," she recalls. "I really enjoyed seeing the many fields and applications people were studying. It was great to talk with students who were working on similar projects; and it also exposed me to a range of career paths."

Linda would like to study materials science in graduate school. She says, "I'm particularly interested in the research and development of medical devices. The impact they can have on people's lives can be truly amazing, and the scope of the field is almost limitless."

THE SCIENCES AT WORK





DAN BRABANDER *(left)*
ASSISTANT PROFESSOR OF GEOSCIENCES

Extensive faculty connections with colleagues at Boston research institutions prove to be an invaluable asset to our student researchers. Through such relationships, coupled with Wellesley funding, students use instrumentation in the Materials Science Engineering Department at MIT and the Earth Sciences Department at Boston University.

CROSSING BOUNDARIES

ANTHONY TIEULI

LEAH HAMILTON FRENCH '11
MAJORS: ANTHROPOLOGY AND HISTORY
HOME: CAMBRIDGE, MASSACHUSETTS

Having a wide variety of interests can really pay off. Just ask Leah French *(left)*. She's an anthropology and history major with an interest in theatre and is a member of the College's Shakespeare Society. Last summer, she won a $10,000 scholarship from a reality show—about engineering.

Leah participated in the second season of *Design Squad*, a program on Boston's PBS channel that showcases students with engineering talents. The contestants go through a series of challenges, building contraptions from barbecue grills to go-karts. Leah was the first female to win the contest. "I felt it was important because a boy won last year. And now, more than ever, there are more women involved in the sciences," she notes.

Leah chose to attend Wellesley, as it offered her the chance to meld her various interests. Committed to encouraging women to pursue careers in the sciences and engineering, Wellesley further provides cross-registration opportunities with MIT and Franklin W. Olin College of Engineering. "If I had two lives," says Leah, "engineering would be one of them."

MAJORS & COURSE EXAMPLES

Wellesley is recognized as one of the leading liberal arts colleges in the world. Liberal arts refers to an approach to education that is both deep and broad based—an education that focuses on the ARTS and the SCIENCES, the ACADEMIC and the PRACTICAL, where one can delve deeply into a passionate interest and explore new fields. Read on to discover what the liberal arts can mean for you at Wellesley.

"I certainly believe in the

CORE VALUES

of the liberal arts, which to me, are to be able to develop this important set of abilities that all educated people should have: writing effectively, thinking critically and practically, and communicating with people across boundaries or differences. But I also think it's an opportunity for students to develop a sense of moral self."
Lee Cuba, Professor of Sociology

ASTR 100

AN INTRO TO STARS, GALAXIES, AND COSMOLOGY, which requires evening labs at Whitin Observatory, investigates the life stories of stars, explores the makeup and structure of galaxies, and presents modern

cosmological models for the origin and ultimate fate of the universe. It emphasizes the interaction of observations and the mathematical models developed from these data.

54+ MAJORS

DEPARTMENTAL MAJORS
Africana Studies
Anthropology
Astronomy
Biological Sciences
Chemistry
Chinese
Computer Science
Economics
English
French
Geosciences
German
Greek
History
History of Art
Italian Studies
Japanese
Latin
Mathematics
Music
Philosophy
Physics
Political Science
Psychology
Religion
Russian
Sociology
Spanish
Studio Art
Women's Studies

INTERDEPARTMENTAL MAJORS
American Studies
Architecture
Astrophysics
Biological Chemistry
Cinema and Media Studies
Classical and Near Eastern Archaeology
Classical Civilization
Cognitive and Linguistic Sciences
Comparative Literature
East Asian Language and Literatures
Environmental Studies
French Cultural Studies
German Studies
International Relations
Jewish Studies
Latin American Studies
Media Arts and Sciences
Medieval/Renaissance Studies
Middle Eastern Studies
Neuroscience
Peace and Justice Studies
Russian Area Studies
South Asian Studies
Theatre Studies

QR

The QUANTITATIVE REASONING course requirement ensures that students are proficient in the use of mathematical, logical, and statistical problem-solving tools needed in today's increasingly quantitative world.

HIST 253

FIRST PEOPLES: AN INTRODUCTION TO NATIVE AMERICAN HISTORY surveys the social, cultural, and political history of North America's native peoples from approximately 1200 through the present.

PHILOSOPHICAL CONVERSATIONS

NICOLAS DE WARREN
ASSOCIATE PROFESSOR OF PHILOSOPHY

You never know where you'll run into a professor at Wellesley. It might be at the student-run pub, Punch's Alley, discussing philosophy with a

group of seminar students. Or it might be at a faculty-student soccer game. Or you might hear him reading poetry by the fireside at a literary society function.

If he's Associate Professor of Philosophy Nicolas de Warren, you just might find him doing all of those things. "To get a fuller sense of students as people, you need to involve yourself in these other kinds of activities, so that they're not just students," de Warren explains. "For me, it makes being a professor less of a 'real job' and more of an intellectual and personal engagement with students."

And while he enjoys a variety of interactions with Wellesley students, he's pretty good at the "real job" too. He's written a book on the relationship between consciousness and time that's coming out this year. "Different ways of how we understand time reflect different ways in which we understand ourselves," de Warren says. Out of that book has come an interest in the imagination, "and how we're capable of imagining ourselves as other than how we actually are."

FRENCH

224

VERSAILLES AND THE AGE OF LOUIS XIV is used as a focal point for the study of the aesthetic and literary trends prevalent in 17th-century France, as well as the social and historical trends that accompanied them. Students examine the state of the arts in France under the Sun King from a wide variety of genres, including films, plays, and memoirs.

BOOK ARTS STUDIO
In ARTS 107, students learn the ancient techniques of marbleizing as well as utilize state-of-the-art technology in the Knapp Media and Technology Center.

सुबह

Among the numerous offerings of the Middle Eastern Studies and the East Asian Language and Literatures Departments are: Intermediate Arabic, Contemporary East Asian Cinemas, Chinese Literary Imagination, Readings in Contemporary Japanese Social Science, and Resistance and Dissent in North Africa and the Middle East.

CLASSICAL STUDIES—Greek, Latin, Classical Civilization.

arts

216 SPATIAL INVESTIGATIONS
investigates various forms of drawing in two and three dimensions, including architectural drafting, fixed viewpoint perspective, mapping, modeling, some digital work, and temporary site-built installations. Following a series of studio projects and discussions considering issues of space and place, each student produces a self-directed final project.

Courtney Richter '09, a studio art and art history major—and co-captain of the basketball team—creates prints, drawings, and installation pieces related to memories of her childhood. She is interested in the idealization of memory.

BIOLOGICAL SCIENCES

316

MOLECULAR BIOLOGY focuses on the use of molecular methods to dissect and manipulate complex biological systems. Students analyze the application of molecular biology to genetic diseases, genetically modified organisms, cancer, stem cells, human cloning, aging, and environmental protection. They also analyze primary literature and pursue an original research project using current molecular techniques—molecular cloning, PCR, DNA sequencing, mutagenesis, protein expression, and bioinformatics.

ECONOMICS

#1

For three decades, Wellesley has ranked first in the number of women graduates who go on to earn a Ph.D. in the male-dominated field of economics. Development Economics, Urban Economics, Poverty and Inequality in Latin America, Trade and Immigration, Federal Tax Policy, Games of Strategy, Econometrics, Economics of Immigration, and Health Economics are just a sampling of the depth and breadth of the Economics Department.

ENGLISH

345

ADVANCED STUDIES IN 19TH CENTURY LITERATURE: THE BRONTË FAMILY—
A study both of the imaginary world Charlotte, Emily, and Anne Brontë created along with their brother, Branwell, in their childhood stories and poems, and of the novels they wrote in close contact as adults.

ARTH 268

ART, ARCHITECTURE, AND PILGRIMAGE IN THE MEDIEVAL WORLD
Examine the architecture and art of pilgrimage sites and consider social, political, theological, and economic contexts. The primary area of inquiry will be the Medieval Christian pilgrimage experience, both Byzantine and Western European, as well as Muslim pilgrimage.

PROVIDING THE FRAMEWORK

It's hard to get 18- to 22-year-olds interested in retirement issues, but that doesn't stop Associate Professor of Economics Courtney Coile.

Her research centers on the economics of aging and health—topics that don't typically spring to the forefront for a college student. While her research doesn't play a large role in most of her classes, Coile finds a way to work it in. "I will oftentimes design a class assignment based on an article I've read, where I think that the concepts that we've been learning in class would apply," she says.

"The great thing about economics is that it's such a useful framework for thinking about the world," Coile adds. And she tries to teach her students not only the principles of economics, but also the building blocks for analyzing what's going on around them. "When students are able to think about these issues through an economic lens, they become better prepared to make up their own minds about what kind of policies make sense."