You know who they are: the rock stars of campus, the ones whose classes you'd sell your eye teeth — and maybe your iPad — to take. They are the professors who haunt your memory at your first job after graduation, and your fifth. When you return to your alma mater, you stop by their office to check in. Chances are, they remember you. Whether they're humanizing robots or illuminating human history, bringing life to the literature of Thomas Jefferson or the laws of thermal physics, some of the finest minds working in higher education today can be found in Pittsburgh. Regardless of academic discipline, these professors earn recognition for their innovation, creativity and dedication. And they share a common trait: an uncanny knack for demanding — and eliciting — the very best from their students. Pittsburgh's growing reputation as a city predicated on its colleges and universities is rooted in the life's work of people like these. by Niki Kapsambelis | photos by Terry Clark

# who are pittsburgh's BEST PROFESSORS?

## Allyson Lowe

**POLITICAL SCIENCE, Carlow University**

It is perhaps a measure of Allyson Lowe's commitment to mentoring that her favorite course to teach is an introductory class in American government. She makes no bones about it: She's there to win over students.

"It's where you can capture students' interest in the discipline," explains Lowe, who heads the political science department at Carlow University. "It's really where you begin to build advising and mentoring relationships with students."

In her role as an adviser, Lowe helps students draw a roadmap designed to steer them toward success. Toward that end, her door is always open, and she works hard to create a safe environment where students can explore even the most abstract curiosity.

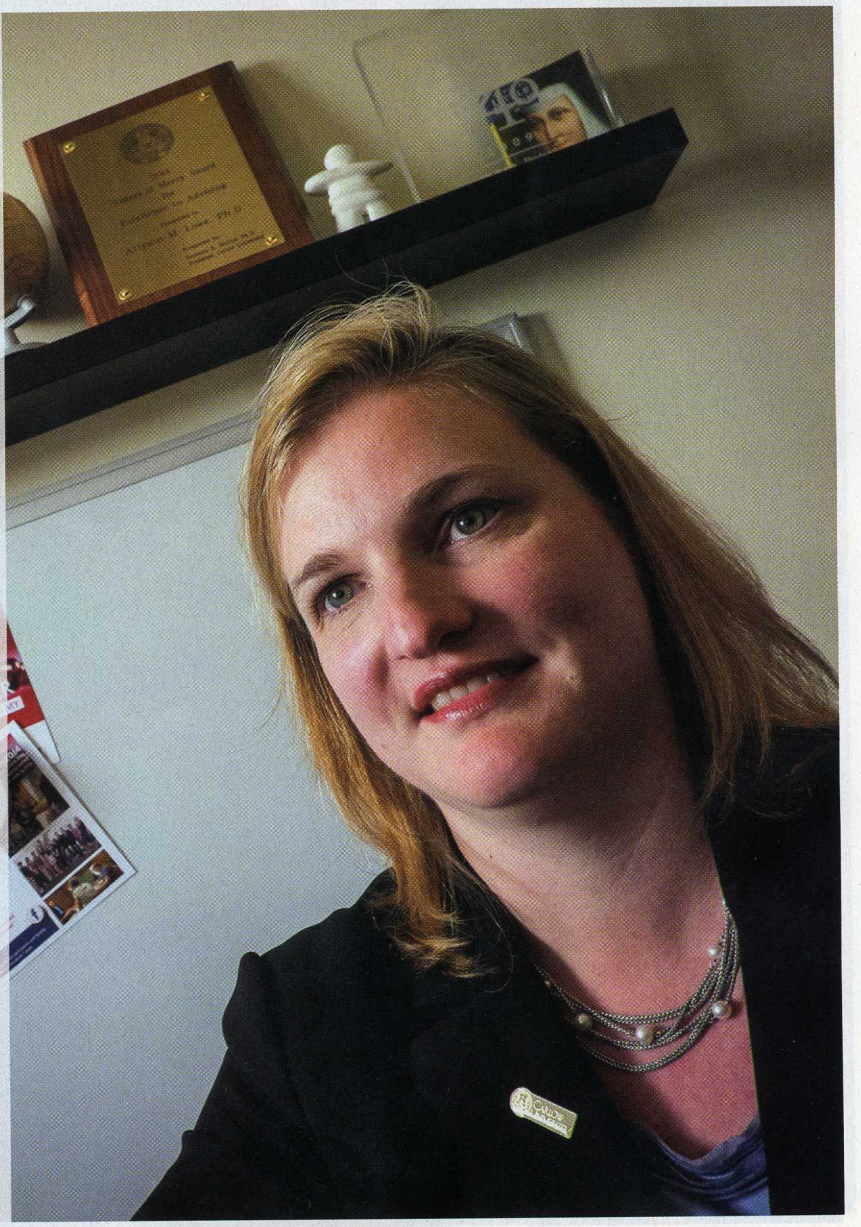
"Students often appear in my doorway and say, 'I have this dumb question.' Well, that's why I'm here," she says.

Since arriving at Carlow in 2009, she has created a pre-law program and a companion pipeline of career opportunities beyond the classroom, helping students envision and design careers in law that don't simply end in being litigators. She brings them to a variety of settings — courtrooms, nonprofit advocacy groups and law firms, for example — and advises many of the students in the minor in pre-law studies that she designed. Her goal is to show students how to embark on a pathway at 18 that will set them up in four years to compete successfully for graduate or law school and jobs.

She also runs a summer academy called Pre-Law and Order for high-school and college-age women who are considering legal careers. They network with legal professionals, learn how to prepare a law school application, visit schools and work on test-taking, writing and critical-thinking skills.

Lowe's research has focused on the inclusion of marginalized populations, such as immigrants and refugees in the United States and the Roma (gypsy) women of Europe.

"I'm looking for ways to help students find a voice for themselves," she explains. "In my research, I'm interested in how women can find voice in very marginalized situations."



# Rob Ruck

**HISTORY, University of Pittsburgh**

If you know anything at all about baseball's Negro League, chances are history professor Rob Ruck had something to do with it.

As a graduate student at Pitt in the late 1970s, Ruck had planned to write his dissertation about the rise and fall of unionism in the steel industry. A run along a trail overlooking the Homestead Works of U.S. Steel prompted him to change tracks. His running partner — Norris Coleman, an African-American man — looked down on the mill and asked if he'd ever heard of the Homestead Grays. With only a vague recollection of Satchel Paige and a handful of other players, Ruck went to a library to find out more. Unable to discover much beyond cursory mentions, he won a grant from the National Endowment for the Humanities to research the Grays and Pittsburgh Crawfords, tracking down as many living Negro League alumni as he could.

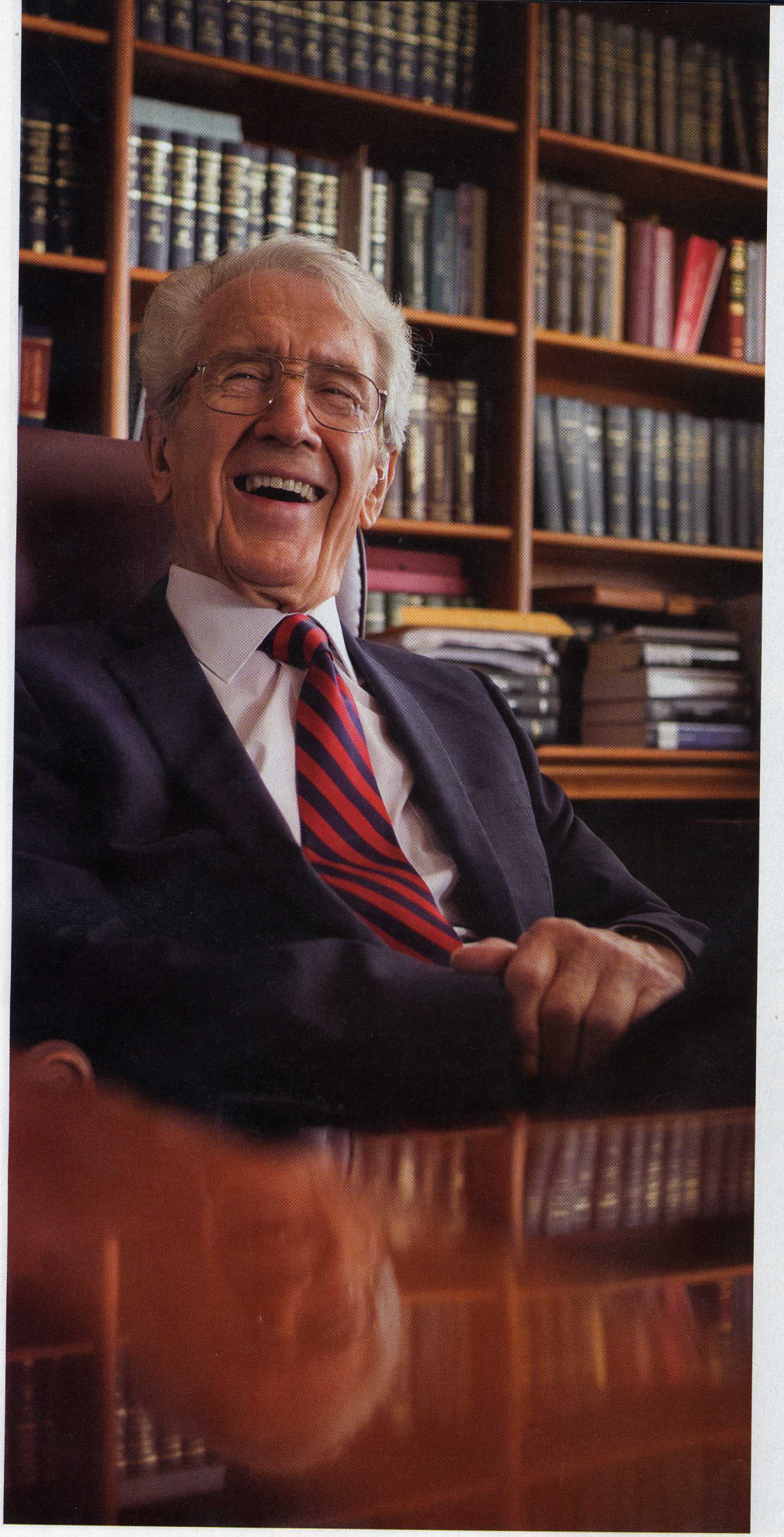
Ruck wound up writing his dissertation on the role the league played in Pittsburgh before integration and how baseball united the identity of a people who had been geographically fractured and had grown increasingly diverse. Today, he teaches History of Sport at his alma mater, one of the first college courses of its kind.

"I think you can teach almost any aspect of history by looking at the evolution of sport," he says. "People use [sport] individually and collectively to tell a story about who they are."

Whether it's Nelson Mandela using the 1995 Rugby World Cup to avert a racial bloodbath or Title IX redefining feminism, sports have become an arena for cultural influence beyond home runs and high salaries. Ruck — who has authored several books in the genre — now is working on a book about how football has influenced communities in American Samoa.

Ruck also works to restore public memory of the role African-American and Latin American players have assumed in shaping major-league baseball. In 1988, he successfully lobbied the Pittsburgh Pirates to commemorate this piece of the city's forgotten history with a pre-game ceremony honoring the 40th anniversary of the last Negro League World Series. It was one of the first times any major-league team agreed to so public an acknowledgment. Since then, the Pirates have erected monuments to Pittsburgh's Negro League stars — Paige, the North Side's Josh Gibson and others — and have been forerunners in regularly instituting throwback nights in Negro League uniforms.

His belief is that Pittsburgh can find strength in reclaiming this part of its past: "I think when people know their story, it empowers them."



# John Murray

**LAW, Duquesne University**

Poking around a remote corner of northeastern Michigan over the summer, Duquesne Chancellor and law professor John Murray bumped into one of his former students. A week later, while waiting for a table at a restaurant in Ann Arbor, the same thing happened — another city, another student.

Murray seems to find former protégés wherever he goes — even as far away as Paris. And if he isn't meeting someone he taught in the classroom, he's often meeting someone who read one of the many legal texts he has authored or edited. He isn't sure how many there are — he guesses 26, but he's long since stopped counting.

"This is what I wanted to do when I grew up," he says. "Ever since I was in law school, I wanted to be a law professor."

Murray began his teaching career at Duquesne in the 1960s, leaving to become dean of Pitt's law school — and later Villanova's — before returning to Duquesne to serve as the university's president from 1988 to 2001. Throughout that time, he never stopped teaching. During his presidency, he ate lunch in the faculty dining room nearly every day, grabbing whatever seat happened to be available and talking with his colleagues.

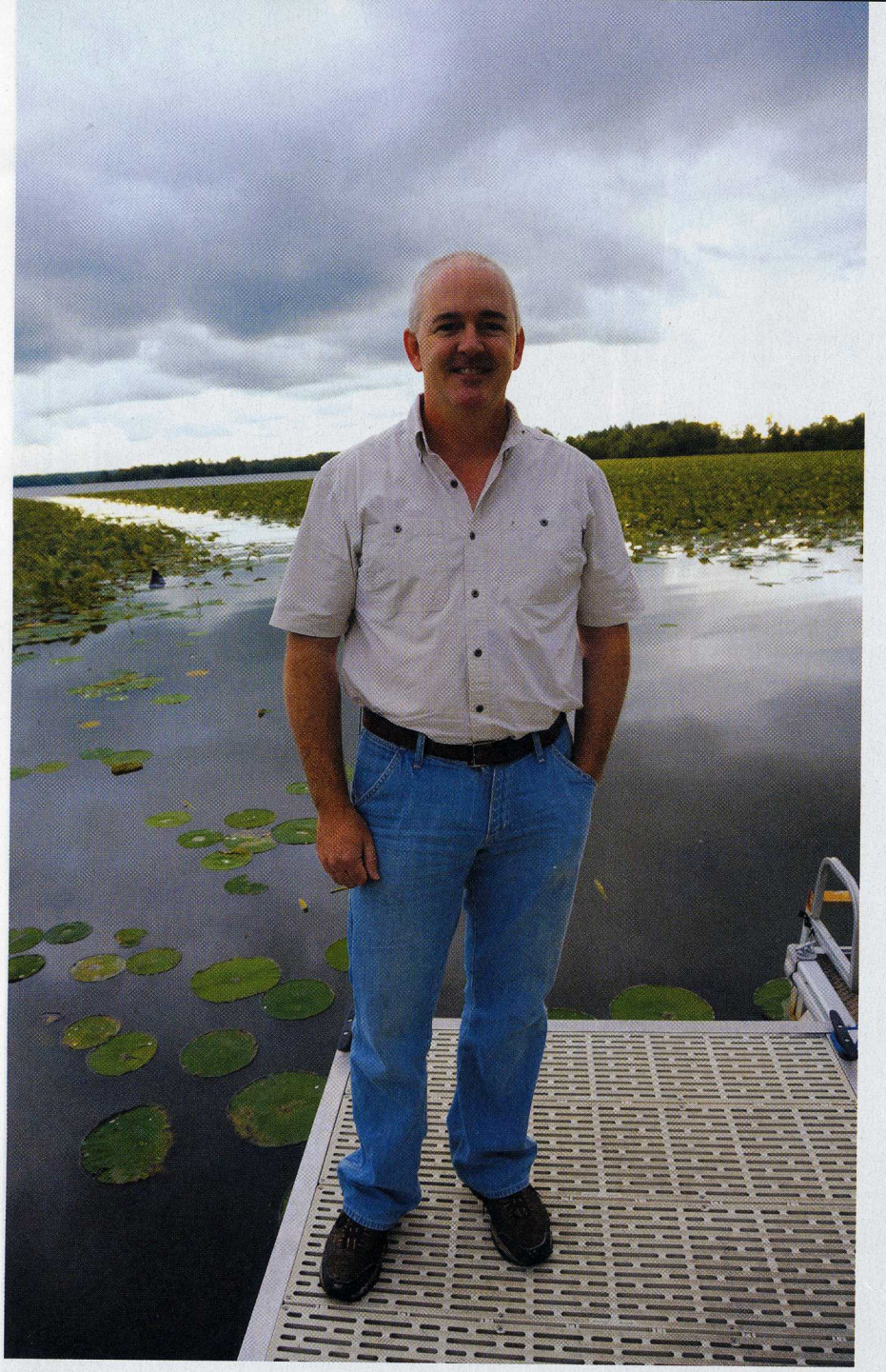
Considered one of the nation's experts in contract law, Murray teaches courses that routinely are packed, with students vying for available spots.

"I think it's interesting stuff, and I try to communicate that to the students. It's critically important to me to be able to look out in the classroom and think perhaps the light has gone on in some brains and eyes," he says.

His books are used in law schools across the country, shaping many of the nation's legal minds as well. Though he credits the material with piquing students' interest, his delivery also factors heavily into his courses' popularity. Each year, Duquesne's Public Interest Law Association holds a silent auction — its largest event — and lunch with John Murray always is a coveted prize.

When he's not teaching, Murray spends his summers writing. In 2014, he has completed two books and is editing a third. He also reads roughly 1,000 cases related to contract law each year.

"One of the critically important things: You simply have to be in master command of the subject matter if you want to help the students," he says. "Students come to the school for the added value of something they can't get anywhere else. You have a genuine obligation to them to provide them with your hardest effort."



# Rick Relyea

**BIOLOGY, University of Pittsburgh**

When undergraduates sit down on the first day of Rick Relyea's Animal Behavior course, he gives them an unorthodox instruction: They are ordered to refrain from taking notes. Instead, he wants them to start thinking like scientists.

This crash course in the Socratic teaching method often terrifies students who have spent years living and dying by memorization, but Relyea believes they emerge as better thinkers. His goal is for students to learn the material so well that if they returned to his course five years later, they still could pass his exams.

"When you see it in action, you realize how incredibly useful it is," he says of his note-free approach. He stands in a lecture hall filled with 60 or so students, all of them interacting, responding, engaging with each other and their professor. "That's really what it is: Me up there, perhaps showing them a graph or a table of data, and they have to figure out why animals evolved into doing what they do. Sometimes, there is no right answer. But they have to think about potential experiments they could do."

Relyea arrived in Pitt's biology department in 1999 with a more traditional style. In those pre-PowerPoint days, he stood at a lectern with an overhead projector, looking at a sea of bored faces. He upgraded his graphics, but the somnolence remained.

Eventually with the guidance of one of his own professors at Syracuse University who used the Socratic method, he developed his own techniques. The switch proved wildly successful; though students spend the first few weeks in a state of marked discomfort, they routinely wind up naming Relyea's class as one of the best they've taken.

Relyea also directs Pitt's Pymatuning Lab, a 350-acre field research station on Pymatuning Lake in Crawford County. He has doubled the number of students using the lab in seven years, thanks in part to upgrades to facilities that include 20 buildings outfitted with labs, classrooms and living quarters.

Ten colleges and universities use the lab each year, as do research scientists from around the country. Students intermingle and collaborate during three-week-long classes in ecology and related fields, putting into practice what they only hear about in the classroom.

"They can see it, they can touch it, they can smell it," says Relyea. "It [allows] students who often have only an urban or suburban background to appreciate nature more . . . It's a remarkable experience because you're out there all day, and at night you're socializing with researchers from all over the U.S."

# Also Noteworthy

**M. GRANGER MORGAN, Carnegie Mellon University:** The head of CMU's Department of Engineering and Public Policy, Morgan is an internationally recognized expert in climate change, energy and public policy addressing these issues. He directs the Center for Climate and Energy Decision Making and specializes in developing methods that address uncertainty in quantitative policy analysis. Morgan also led the National Research Council committee that suggested tactics for making the U.S. power grid less vulnerable to attack.

**DALE HUFFMAN, Carlow University:** An internationally renowned potter, Huffman heads Carlow's art department. For more than a decade, he has hosted a pottery marathon called "Bowls in the Night," in which students and local potters make bowls for the Greater Pittsburgh Community Food Bank and Just Harvest's annual Empty Bowls dinner.

**TEMPLE LOVELACE, Duquesne University:** Lovelace, who teaches in the Department of Counseling, Psychology and Special Education, coordinates a program in Hazelwood in which she and Duquesne education majors provide after-school homework help, promote literacy and offer college preparatory resources for K-12 students.

**JONATHAN PRUITT, University of Pittsburgh:** Quirky and highly animated, Pruitt teaches biological sciences at Pitt. He specializes in spiders and how variations in their personalities influence social organization and response to disaster. Smithsonian, the Discovery Channel, National Geographic and the BBC have featured him and his research after just three years at Pitt.

# 8 Can't-Miss College Courses

From making movies to butchering meat, digging for dinosaur bones to deconstructing human emotion, there seemingly is no limit to what college students are doing in their coursework. Below is a sampling of some of the most innovative and memorable classes that reflect the wide spectrum of higher education in Pittsburgh:

**PRODUCTION III (CINEMA), Point Park University:** Juniors in Point Park's Cinema Production program begin preparing for this fall semester course the previous spring, applying for positions such as producer, director, screenwriter and cinematographer. Seven selected producers pitch scripts to faculty and students and hire crews, who arrive on the first day of the course ready to start working on seven 10-minute films. The course culminates in a sold-out public screening at the end of the semester, which draws more than 300 people. Several Production 3 students also worked as interns on the documentary series "The Chair," which Point Park co-produced; it will air on cable's Starz network beginning Sept. 6.

**WYOMING FIELD STUDIES, University of Pittsburgh:** This course taught through Pitt's Honors College occurs on a 6,000-acre tract the university owns outside Rock River, Wyo. Students camp out on the land and learn geology, paleontology, archaeology and ecology through its pristine dinosaur-bone-bearing beds, 9,000 years' worth of Native American archaeology and an original section of the 1869 transcontinental railroad. The land has produced some of the most famous dinosaur discoveries in the nation, including the Diplodocus carnegii, whose skeleton now lives at the Carnegie Museum of Natural History.

**SUSTAINABLE MEAT PRODUCTION, Chatham University:** Echoing Chatham's legacy in environmentalism, this class — part of the Food Studies master of arts program — teaches students about meat production outside of conventional large-scale processing facilities. In partnership with Jamison Farm in Latrobe, students work hands-on at the farm, including spending time on the kill floor where meat is butchered. The objective is to help them think critically and philosophically about where meat comes from, what its production costs and how it impacts society.

**HUMAN DIGNITY, Carlow University:** An honors course that is team-taught by communication professor Michael Balmert and social work professor Jessica Friedrichs, this course is not offered every semester but is well-received when it is. Students delve into such weighty issues as capital punishment, euthanasia and ethical behavior in health care to discover what really constitutes human dignity.

**INTEGRATED PRODUCT DEVELOPMENT, Carnegie Mellon University:** Taught jointly by faculty from Carnegie Mellon's engineering, design and business programs, this capstone course partners interdisciplinary student teams with industry sponsors to create new products. At the end of the semester, each team develops models as well as product marketing and manufacturing plans. Several prototypes resulted in patents for the sponsors, some of which came to market, notably Navistar's luxury big-rig truck cab, the Lone Star.

**SCIENCE EDUCATION ALLIANCE PHAGE HUNTERS ADVANCING GENOMICS AND EVOLUTIONARY SCIENCE (SEA-PHAGES), University of Pittsburgh:** This freshman biology course, which began at Pitt in 2008, is now taught at roughly 70 colleges and universities around the country. In this class, students hunt for new phages, which are viruses that infect bacteria. Those who successfully discover a new phage earn naming rights. To date, the course's students have found more than 3,000 new phages, all catalogued in a database at Pitt, and they have been listed as coauthors of 10 scientific journal articles. The course has been credited with inspiring many of its students to pursue careers in science and technology fields.

**MATCHING MONEY WITH MISSION: PHILANTHROPY AND SOCIETY, University of Pittsburgh:** Students taking this course at the Graduate School of Public and International Affairs get to distribute an actual pool of grant money so they can put into practice the theories they learn about historic origins and modern-day realism of philanthropy. At the end of the course, organizations that received grants from previous years share the experience with the current class, reporting on what they were able to achieve with the funds.

**OPERATING SYSTEM DESIGN AND IMPLEMENTATION, Carnegie Mellon University:** This rite-of-passage course in CMU's Computer Science Department is so famous among tech types that those who get in often put it on their resumes. Students grapple with open-ended computer operating system design questions while simultaneously balancing that design with real-world details of how computer hardware actually works. They value detailed feedback from professors about their code, essentially the computer science version of a top-end literary critique. Some master's students choose CMU in part to take this undergraduate course. If they can't get in, they can join its perpetual waitlist and build a formal case to get in the next time around.

PHOTO BY BRIAN MAITES

# David Bartholomae

**ENGLISH, University of Pittsburgh**

Whether he's critiquing the work of freshmen or graduate students, professional colleagues or rank amateurs, David Bartholomae takes the business of writing very seriously. From the moment his students step into his class at the University of Pittsburgh, they can rely on one constant: He will treat their work with gravitas.

Named Pennsylvania Professor of the Year in 2013 by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching, Bartholomae was instrumental in developing Pitt's nationally recognized composition program as well as advocating that good writing is a critical skill, regardless of the student's major. He created Pitt's top-rated Writing in the Disciplines program, which integrates writing-intensive courses across academic departments in conjunction with their faculty.

"You don't learn to write in one course in your freshman year," he explains. Rather, writing should evolve within students' academic disciplines throughout their careers, he believes.

Bartholomae makes no apologies for the rigor of his coursework. He's not afraid to push students outside of their comfort zones because he believes difficult assignments will allow them to rise to the occasion.

"The moment of education is confronting something you're not prepared to do, that you're not prepared to read. You have to find a way," he says. "I never go looking for simple things for undergraduates . . . It's been a concern of mine from the very beginning, to take students seriously as intellectuals and academics."

The author of the much-admired and widely cited essay "Inventing the University," Bartholomae wants students to view writing as an engagement with an intellectual project.

"Writing is hard work, and it carries with it the burden of being hard work," he says. And regardless of whether students continue to write after graduation, he believes they emerge from the process as better citizens: "They have learned to speak with strangers and to make sense of unfamiliar settings."

■ Freelance writer Niki Kapsambelis has worked for the Associated Press in New Hampshire, Los Angeles and Pittsburgh. She is based in Mt. Lebanon and is the author of the forthcoming book "The Good Fight."