

thePIPER

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Carnegie Mellon University



CELEBRATION EDUCATION

Awards Honor Magnificent Mentors, Terrific Teachers

■ Kelly Saavedra

You always remember the teachers or advisers who helped shape who you are today.

They saw your potential before you did, and nurtured it without fail. They listened patiently and offered expert guidance. They made recommendations that expanded your career possibilities. They helped pick up the pieces when everything seemed to be falling apart.

At this year's Celebration of Education, CMU paid tribute to the extraordinary efforts and achievements of four distinguished educators for their unparalleled commitment to helping others succeed.

And this year's winners are:

The William H. and Frances S. Ryan Award for Meritorious Teaching

Rebecca Nugent

Rebecca Nugent is a demanding instructor and mentor known for her high standards and profound impact on students.

She is co-director of the fast-growing undergraduate program in the Department of Statistics, where she has helped shepherd the growth of the undergraduate statistics major and advised innumerable students toward careers in the field.

Nugent teaches a wide variety of statistical methodology classes at CMU but is probably most famous for forcing everyone to rewrite their data analysis reports several times. Students flock to her for advice and write about her ability

New Business Plan



Designs for the New Tepper School of Business, the first building in the Tepper Quad, were unveiled at a town hall meeting in early April. Tepper School Dean Robert Dammon said the New Building, facing Forbes Avenue, will mark a new vision for the business school of the future. Read more on page nine.

40,000 and Counting

Steidel Marks Enrollment Milestone

■ Mike Yeomans

March was fading fast. Only a week remained before the eagerly awaited "Fat Letters" were to be mailed to the select high school students from around the world vying for admission to Carnegie Mellon, from a record 20,560 applications

Two staff burst through Director of Admission Mike Steidel's doorway and began peppering him with details of three applicants on the fence. Seventeen full-time admission staff and 23 part-time readers had been poring over applications without a day off since the beginning of January. They had painstakingly shaped the acceptance lists for each of the university's six undergraduate schools and colleges, and were down to the final few spots.

A weary tension was written on the staffers' faces as they awaited Steidel's feedback: thumbs up for two, thumbs down for one.

"This is the hardest thing for us. You hate to turn down good kids," Steidel said. As many times as he's had to say no, Steidel has had plenty of opportunities to

Sometime before the May 1 deadline for enrollment, one of the 4,863 prospective Tartans offered admission Continued on page three

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Artfully Done

Alumna Paints Broad Impact on Cultural Scene

■ Kelly Saavedra

When you're a kid growing up abroad, moving from country to country, the arts can come in handy.

Music, dancing, visual arts — even culinary arts — were universal languages that helped Kathryn Heidemann acclimate to every new culture she lived in, from Venezuela to Germany to the Land Down Under.

"There were times when I was uprooted right in the middle of a school year. Sometimes I had to learn to speak a whole new language. The arts were my means of universal communication and social survival," said Heidemann, director of the Heinz College's Master of Arts Management (MAM) program.

They also were the foundation for a career that enables her to support the arts in ways that help ensure their

Heidemann studied dance and arts management in Chicago and enjoyed working at various arts organizations there and in New York City and Detroit, but something was missing.

"As a creative person I was really looking for a rigorous academic program that would unify my right and left brain, while giving my left brain a 'boost' of sorts with quantitative management skills. I had worked in the field for a number of years and I wanted to be

pushed to a whole new level with regard to data-driven management within the arts," she said.

That's when she decided to move to Pittsburgh and enroll in Heinz College's MAM program. The Pittsburgh Cultural Trust hired her when she graduated, and for eight years her list of professional successes grew by leaps and bounds.

She founded and managed 200 arts master's degree programs in conjunction with the Dance Council, PNC Broadway Across America and TrustPresents series. She produced 30 of the city's popular Gallery Crawls, which are quarterly showcases of arts entertainment. And she oversaw three First Night Pittsburgh festivals, the region's largest single night arts festival that takes place on New Year's Eve, breaking attendance records and reaching millions of students, teachers and community members during her

During that time, she also took two working sabbaticals to assume leadership roles abroad and domestically as a venue manager for the Edinburgh Festival Fringe, the world's largest arts festival, and as an operations manager for Jacob's Pillow Dance Festival in the Berkshires.

Consider Mayor Bill Peduto among the people on whom she left a lasting impression. He recently appointed her to the City of Pittsburgh's Art Commission, which works to improve the aesthetic quality of the city's public spaces.

"Mayor Peduto is, was and always will be a very strong advocate for the arts. I am honored and humbled to have been chosen as an art commissioner under his leadership, and hope that my background in arts management, understanding of arts policy issues, and passion for the arts and our communities will help me be the best servant to this city that I can be," she said.

Heidemann feels the arts can play a big role in fostering innovation and creativity, both within ourselves and within the community.

"There are ways you can do that which don't necessarily mean you have to be an artist for a living. The arts are a right, not a privilege. If we all tap into out inner artist, we can learn to better engage in creative problem-solving and contribute better to what we're doing in our own respective fields — science, technology, business and other areas."

She has worked at international

any other job.

As director of the MAM program, Heidemann says she has been able to stay more connected, especially at the global level, to the arts than she has in

CMU is the students. Many of them

PITTSBURGH MAYOR BILL PEDUTO APPOINTED CMU'S KATHRYN HEIDEMANN TO THE

CITY'S ART COMMISSION.

"WHAT IMPRESSES ME MOST ABOUT CMU IS THE STUDENTS. MANY OF THEM COME FROM ARTS BACKGROUNDS BUT LEARN TO 'SPEAK DATA' VERY QUICKLY. THEY QUICKLY ADAPT TO NEW WAYS OF THINKING, NEW WAYS OF SEEING THE WORLD AND NEW WAYS OF SOLVING PROBLEMS." - KATHRYN HEIDEMANN



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festivals before, but her affiliation with CMU has enabled her to work on international partnerships. She leads the dual degree partnership with the University of Bologna's GIOCA (Graduate Degree in Innovation and Organization of Culture and the Arts) program in Italy. She enjoys working with international students and arts performers, attends many international performances and speaks at arts administration conferences around the globe.

"Due to the nature of my job and the diversity of my students' interests, I have to have my finger on the pulse of every facet of the arts industry — what's happening in the museum, gallery, symphony, opera, theater and dance company worlds. Certainly my favorite part about the job is not just about breadth of access to the arts, but also about the people. The students and the alumni are such a rich part of what I do and make me love coming to work every day."

While other universities have master of arts management programs, Heidemann says CMU's program is in a class all its own.

"What impresses me most about come from arts backgrounds but learn to

'speak data' very quickly. They quickly adapt to new ways of thinking, new ways of seeing the world and new ways of solving problems," she said. "Many of them have specific goals in mind when they arrive here, but may quickly find a whole new course to chart and a whole new part of themselves that they didn't know was there. I love to see what they do, where they end up. They just continue to surprise me."

And sometimes, she surprises her students. Heidemann has often been found playing bass guitar in local and national rock, punk and classic country bands.

An active member of her community, Heidemann was recently named by Pittsburgh Magazine as one of the city's "40 Under 40" honorees for her passion, commitment and overall impact on the Pittsburgh region.

"Certainly, it's a labor of love," she said. "It's so wonderful to find myself in this cycle where I was a student of this program that I am now managing. The passion for what I did informs my new passion, which is really helping the next generation discover this exciting field of arts management and make a difference in the arts in a different kind of way."



this year became the 40,000th student to enroll at CMU during Steidel's 29-year tenure as admission director.

"That's hard to comprehend. It really hasn't felt that long," he said.

Steidel has been extolling the virtues of CMU since he arrived as a freshman in 1974, a mere seven years after the merger of Carnegie Tech and Mellon Institute that established Carnegie Mellon as a full-fledged university.

Steidel said he had never heard of CMU growing up in Allentown, Pa. As the first generation of his family to attend college, his boyhood universe was limited to a narrow triangle between Philadelphia, New York and Harrisburg. His high school guidance counselor knew the CMU admission director at the time, Bill Elliott, and recommended that Steidel apply, saying it would be a good fit based on his interests in science and engineering.

"It's good I applied back then, because I would probably be inadmissible today," he joked.

So he packed his bags and crossed the Allegheny Mountains, arriving in a city full of belching smokestacks not unlike his hometown. He had to pay his own way through college, so Steidel took a job working for Elliott as one of four freshman tour guides, a job he found thoroughly enjoyable.

Upon graduating in 1978 with a degree in chemistry and administration management science, Elliott offered him a full-time job in the admission office.

"I thought that would be a good thing to do for a few years to get some experience," Steidel said.

But by the 1980s, CMU was in his blood. When Elliott and then CMU President Richard Cyert learned he'd received an offer to leave the university, they promoted him to director of admission. He was 28 years old.

In the nearly 30 years since, CMU and Pittsburgh have transformed themselves and Steidel.

"CMU has sent me around the world two dozen times," he said. "It has changed my life. I love how this place through all its changes remains committed to being the best it can be."

Steidel's staff say his willingness to share his experience makes him a popular draw for the road.

"Mike Steidel and Carnegie Mellon are synonymous," said Greg Edleman, associate director of admission. "Whenever I travel with him to professional conferences, there are always two lines: one to talk about Carnegie Mellon and one to talk to Mike. Frankly, I'm not sure which line is usually longer."

One of the biggest changes he has presided over is the number of international students admitted, which has held steady at 15 percent of applicants this year over last but was only a few percent in his early years in the job.



DIRECTOR OF ADMISSION MIKE STEIDEL HAS ENROLLED 40,000 STUDENTS.

Once the admission letters go out, prospective students are invited to campus for April visits, which gives his office one last chance to sell the CMU experience, although meeting enrollment goals is not a concern.

"We could admit an entire class from our waiting list and in most cases not see a significant decrease in the quality of students," he said.

After the new class is enrolled, there is no downtime. Steidel's focus turns to

financial aid, which his office also handles. This is where he comes up against his biggest challenge: competing for top students from diverse backgrounds against other elite institutions that have formidable endowments.

Looking ahead, Steidel said he is encouraged by President Subra Suresh's presidential scholarship fundraising initiative, which aims to level the playing field for CMU.

Building Blocks

Mondor Is Putting Sustainability into Practice for Pittsburgh

■ Bruce Gerson

Involved to evolve.

In a nutshell that's the role Christine Mondor is taking — threefold — to help continue to improve Pittsburgh and its surrounding communities.



CHRISTINE MONDOR LEADS A SESSION DURING THE RECENT PLANT, PEOPLE, PLACE AND PERFORMANCE (P4) Conference aimed at transforming PITTSBURGH INTO A SUSTAINABLE CITY.

An architecture professor at CMU for the last 15 years, she teaches her students the principles of sustainability and design, and engages them in projects to improve the design of communities, helping people and organizations envi-

sion new futures.

As principal of her own firm, appropriately titled "evolve environment: architecture," Mondor focuses on bringing sustainability to practice. She's worked on the Center for Sustainable Landscapes for the Phipps Conservatory and Botanical Gardens, and collaborated on a two-year environmental performance study for the David L. Lawrence Convention Center.

evolveEA works with communities in the region and across the country to creatively connect high performing places with the culture of the community. She was instrumental in starting Pittsburgh's first two ecodistrict planning efforts and chairs a

national committee developing standards for the EcoDistricts Protocol.

And as chair of the Pittsburgh Planning Commission for the past year, she's working to support a larger agenda.

"I think I speak broadly for the design community when I say it's great to have a mayor who sees sustainability and design as key strategies to improving our communities and quality of life," said Mondor, a 1993 graduate of the School of Architecture. "It is a remarkable time to be a designer, or a design student, in the City of Pittsburgh."

Steve Lee, professor and head of the School of Architecture, said he was genuinely pleased when Mondor was named to the Planning Commission.

"She was a great student, her firm is transforming Pittsburgh, students love her, and she's smart and wonderful in every way," said Lee, who taught Mondor in the early 1990s and employed her for five years as an intern at his firm, TAI+LEE Architects. "She's making a real impact in our Advanced Options studios."

Appointed to the position about a year ago by Mayor Bill Peduto, Mondor, a native of the city's South Hills,

heads the eight-member commission. The group, which includes CMU alumna Jennifer Askey of Perkins Eastman, is charged with guiding land use and development in the city, making recommendations to City Council concerning zoning ordinances and zoning maps, and reviewing major development proposals and redevelopment plans.

One such redevelopment plan is the Lower Hill District project, which aims to transform the former Mellon Arena site into 28 acres of residential and commercial space. Designs for the initial structure on the site, a new office building that will serve as headquarters for U.S. Steel, recently came under scrutiny.

Mondor said one of the discussion points focused on the scale of the building and the fact that the Preliminary Land Development Plan (PLDP) called for multiple buildings in this specific space. The PLDP was authored by the Pittsburgh Penguins, the Sports & Exhibition Authority and the Urban Redevelopment Authority of Pittsburgh.

"There's a scale to downtown. When you have a large area of vacant land, there's no sense of scale. What you build CONTINUED ON PAGE FOUR

Abel Development

CMU Recognized for Helping People Thrive

■ Bruce Gerson

Professional Development Services has undergone some professional development of its own.

Since taking the helm of the program two years ago, Kim Abel has transformed staff development at CMU into a model program for human resources. It was recently honored as one of 10 finalists for "The People Do Matter Awards," presented by the Pittsburgh Human Resources Association. CMU was recognized in the Helping People Thrive category.

The turnaround began with reflection and a very thorough nine-month assessment process.

"We worked with Institutional Research and Analysis to develop a survey and provided all staff with an opportunity to participate. We looked at what staff would be interested in and what they thought they needed to be successful at CMU," Abel explained.

Feedback from 1,150 survey responses and 124 one-on-one interviews gave Abel the information she needed to move forward effectively.

"We listened to folks," she said.

What she heard were topics of interest and ways in which staff wanted to receive enrichment opportunities. The most popular subject areas among staff were competency skills, such as how to supervise, communicate, resolve conflict, conduct business effectively and work with others. The preferred method for learning was "getting out of their own context and sharing with others," Abel said.

With feedback in hand, the Professional Development Services staff designed appropriate courses and a framework for each workshop to

provide consistency. Her staff includes instructional technology specialists Mike Bernesser and Adam Marks, staff development specialist Jason Schneider, program coordinator Autumn Secrest and information specialist Heather Wainer.

"We take a practitioner's perspective. Our goal is to have folks come into the session, spend focused time on the topic and then have the ability to immediately apply what they've learned to their

"It's not just about theory. We want you to leave with a new tool in your toolbox," she said.

Each session also includes a reflection period and provides participants with additional resources on the topic, such as reading materials, online courses or practice exercises.

"Reflection is a significant part of professional development. We're moving so fast that we often don't stop, analyze and spend the time to think through



KIM ABEL LEADS A RECENT PROFESSIONAL DEVELOPMENT WORKSHOP.

are also fortunate to have the support of

Dan McNulty, associate vice president

ONLINE: TO REGISTER FOR UPCOMING PROGRAMS, SEE WWW.CMU.EDU/HR/PROFESSIONAL-DEVELOPMENT/.

what's been successful, how I can improve and how I can validate what I've learned," Abel said.

The new program has been a smashing success. Participation has increased from 153 staff in fiscal year 2013, to 2,075 in FY 2014, and to 5,034 in FY 2015 as of early April. Abel said some of that increase is a result of workshops associated with the implementation of Workday, the new HR, benefits and payroll management system.

"Each member of our staff contributes to our success and really understands the importance of the work we do. We

for Human Resources, and Mary Jo Dively, vice president and general counsel," Abel said.

Pattye Stragar, fitness operations manager and current chair of Staff Council, has taken several classes, including Conflict Resolution, Get Up and Go: Self-Motivation, Efficiency Matters: Administrative Strategies that Work, and Enhancing Your Decision-Making Habits.

"What I enjoy most is the way Professional Development has made the workshops so interactive," Stragar said. "I think it is important to be green and growing - always trying to have an open mind and learn new ways to approach things.

"The collaboration with peers in the workshop has been extremely beneficial. I enjoy being able to listen and comment on the different ways to approach a situation. It is nice to hear that others might be experiencing the same issues," she said.

Sylvia Smith, manager of business services for computing facilities in the School of Computer Science (SCS), has taken workshops in Providing Great Customer Service, Performance Review Guide, Supervision: Optimal Performance, Supervision: It's a Group Thing, and Leading Change: What's a Leader To Do?

"Kim [Abel] is phenomenal! She has a handle on training in a way that has one feeling as though they can do anything when they walk out of the training session," Smith said. "She answers the hard questions when the answer is sometimes not what one may want to hear. I love her honesty!"

In addition to providing a curriculum of staff development courses in competency skills, Professional Development creates customized content for groups. Some of the custom clients have included Campus Affairs, Enrollment Services and SCS Computing Facilities.

Strength Through Change was a tailor-made program attended by about 35 members of Enrollment Services. Brian Fernandes said the session was one of the most well-received programs they have hosted.

"Kim's delivery of the program and the way she engaged and interacted with the participants were what made the presentation so successful. We will absolutely be bringing Kim's group back to present on other areas of interest to our division," said Fernandes, associate director of Enrollment Services.

Making the Most of Your Performance Review was a session developed specifically for the SCS Computing Facilities group of nearly 50 employees, who had recently collaborated to implement a new performance review process. Department Director Tom Cullen said the workshop provided a guide for both staff and managers on how to participate effectively.

Abel also periodically brings together nearly 50 colleagues from across campus who have staff development responsibilities in their own departments or divisions. Called Learning Partners, the group meets four times a year to share best practices.

As a former women's soccer coach, physical education instructor, child care center director, director of housing and dining, and now as a professional development director, Abel's desire has remained constant.

"My purpose has been to build community, to help create a sense of place where everyone has a sense of belonging, and challenge people to be their best. That's been the core of who I am," she said.

Building Blocks CONTINUED FROM PAGE THREE

first creates a sense of scale for the next project. If this was to be a single building, we at least wanted the scale to honor the site master plan, knowing that it will influence the next block," she explained.

The Planning Commission also asked for more developed landscape planning in the rear of the facility.

"You see projects that are very well developed and finished even before they come to us, and this one had some parts that needed more work," said Mondor, who expects that the revised design will begin construction by the end of the year.

"I think it's wonderful that something is happening on the site quickly because the PLDP was just approved a few months ago. I look forward to seeing future excellence on this site," she said.

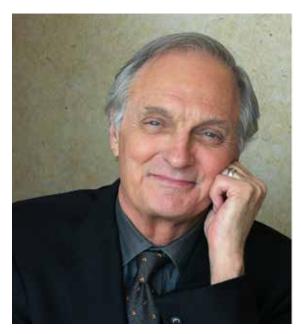
Mondor is one of many from CMU who are joining forces with city and county government agencies to improve Pittsburgh in many aspects. She's among CMU leaders like Lee, University Professor Vivian Loftness, and Don Carter and Steve Quick of the Remaking Cities Institute.

"CMU's knowledge and resources contribute to the larger conversation, and whether it's through individuals or projects, or through long-term strategy, CMU is a powerful asset.

"When I travel to other places, people always comment on how lucky Pittsburgh is to have Carnegie Mellon. My goal is to make sure our students and city make the most of that relationship," she said.

COMMENCEMENT 2015

Alan Alda, the "Perfect Choice" for Keynote Speaker



Alan AldaActor, Writer, Director

Alan Alda, an acclaimed actor, writer and director who has a passion for science and technology, will be the keynote speaker at Carnegie Mellon's 118th Commencement at 11 a.m., Sunday, May 17 in Gesling Stadium. Alda, who exemplifies Carnegie Mellon's interdisciplinary strengths in the arts, science and technology, also will receive an honorary Doctor of Fine Arts degree.

A seven-time Emmy Award winner, Alda is best known for his starring roles

as Hawkeye Pierce in the TV series "M*A*S*H" and as Arnold Vinick in "The West Wing."

As a science enthusiast,
Alda hosted "Scientific
American Frontiers" on PBS
for 11 years, interviewing leading scientists from
around the world. He has
worked on award-winning
PBS programs such as
"The Human Spark," which
explored what makes us
human, and "Brains on
Trial," which focused on the
implication of contemporary
brain science for the U.S.
justice system and included

an interview with CMU's renowned neuroscientist Marcel Just.

He helped found the Alan Alda Center for Communicating Science at Stony Brook University, where he is a visiting professor, and since 2008, he has worked with physicist Brian Greene on presenting the annual World Science Festival in New York City. He received the 2013 Scientific American Lifetime Achievement Award and was recently elected a fellow of the American Physical Society in recognition of his work in advancing the communication of science.

"Carnegie Mellon is uniquely positioned at the intersection of arts and technology, which makes Alan Alda a perfect choice as our commencement speaker," said CMU President Subra Suresh. "His outstanding career in film and television and his passion for the arts, science and technology serve as shining examples to our 2015 class. We are pleased to welcome Alan Alda to CMU as our commencement speaker."

Nominated for an Academy Award for his supporting role in the 2004 film

"The Aviator," Alda has starred in many other films, including "Same Time Next Year," "California Suite," "Crimes and Misdemeanors," and "The Seduction of Joe Tynan," which he wrote. He also starred in, wrote and directed "The Four Seasons," "Sweet Liberty," "A New Life" and "Betsy's Wedding."

He has the distinction of being nominated for an Oscar, a Tony and an Emmy, and publishing a bestselling book, all in the same year (2005).



Alan Alda interviewed CMU's Marcel Just for the PBS program "Brains on Trial."

Graduation "Just the Beginning" for Class of 2015



Brooke Kuei

Uncertainty can be daunting, but it also can be exciting, encouraging, inspiring and filled with endless possibilities.

That's the outlook Brooke Kuei prefers and the one she'll relay to her classmates as this year's Commencement student speaker.

"I feel like a lot of people see graduation as the end of something, but I want to remind them that this is just the beginning," she said, "that we have our entire lives to keep reaching for our dreams."

Kuei also wants her classmates to recall how CMU has made them better and stronger.

"We have all grown a lot since coming here, each in our respective ways, and I want everyone to be proud of their accomplishments — as well as those of their fellow graduates — and to feel confident and ready for life after Carnegie Mellon" she said

A physics major with a minor in professional writing, Kuei will receive her bachelor's degree with University Honors, a distinction earned by graduates with a 3.5 grade-point average or higher.

In addition to excelling academically, Kuei was an active member of

the campus community, serving as a teaching assistant for physics classes and as a mentor for the physics outreach program.

She was a founding member of CMU's women's varsity golf team, and used her writing skills to be Science and Technology editor of the Tartan, and managing editor of the Dossier Literary and Arts Magazine.

Kuei will be headed to Penn State in the fall to pursue a Ph.D. in materials science and engineering and to advance her research in energy science.

Honorary Degrees Awarded to Leaders in Art, Business and Science



Kai-Fu Lee (CS'88 and Past Faculty)

Chairman and CEO, Innovation Works
Doctor of Business Practice

Kai-Fu Lee is a prominent computer scientist, venture capitalist, corporate leader and writer now based in Beijing. He received his Ph.D. from Carnegie Mellon in 1988.

At Carnegie Mellon, Lee worked on topics in machine learning and pattern recognition. He and Sanjoy Mahajan developed "Bill," a Bayesian learning-based system for playing the board game "Othello" that defeated the human world champion in 1989. For his doctoral dissertation, he developed Sphinx, the first large-vocabulary, speaker-independent, continuous speech recognition system.

After completing his Ph.D., he served on the computer science faculty at CMU until 1990, when he joined Apple as a principal scientist. He was promoted to vice president in 1995, and later held executive leadership positions at SGI, Microsoft and Google.

Lee moved to Beijing in 1998 to establish an office for Microsoft Research Asia, which became a renowned research institution in computer science. In 2005, he was named founding president of Google China. In 2009, he left Google to found Innovation Works, an early-stage investment company that supports the creation of the next wave of Chinese high-tech companies.

He has written several best-selling books, including two that have sold over one million copies. His writings and speeches have inspired millions of young people to pursue technology careers. He is one of the most followed micro-bloggers in China, in particular on Sina Weibo, where he has more than 50 million followers.

He was named one of the 100 most influential people in the world by TIME magazine in 2013.



Joyce Kozloff (A'64)

Artist

Doctor of Fine Arts

Joyce Kozloff is a major American visual artist, whose work fuses pattern and movement with social engagement. She earned her bachelor's degree in fine arts at Carnegie Mellon in 1964 and went on to earn a master's degree from Columbia University.

Kozloff has described her art as blending "a love for widespread artistic traditions with an activist temperament." She has worked in glass mosaics, ceramic tiles, frescoes, books, prints, watercolors and photography. Most recently, she has been making art from antique maps, navigational and aerial charts, and globes. Her walk-in globe, "Targets," is painted on the inside with maps of all the sites the United States bombed between 1945-2000; a large installation at the Venice Arsenale, "Voyages," described European explorations during the age of discovery.

Kozloff's work is exhibited in museums and galleries across the country. She has won numerous commissions for such venues as the United States Consulate in Istanbul, Turkey, and the International Terminal at San Francisco International Airport. She traces her interest in public art to Carnegie Mellon instructor Robert Lepper, who assigned students to document the buildings and people in the Oakland neighborhood.

In 2013, Kozloff returned to CMU as an artist-in-residence at the Digital Arts Studio, where she made a body of work titled "Social Studies," using 1950s classroom world maps that she found in a Paris flea market, to which she digitally added political and social imagery not usually taught in history or geography classes.

She lives and works in New York City.



Judea Pearl

Chancellor's Professor of Computer Science, UCLA Doctor of Science and Technology

Judea Pearl is the Chancellor's Professor of Computer Science and director of the Cognitive Systems Laboratory at UCLA. He is internationally known for his contributions to artificial intelligence, human reasoning, causality and the philosophy of science.

The Association for Computing Machinery (ACM) described Pearl's work as "revolutionizing the understanding of causality in statistics, psychology, medicine and the social sciences." The ACM honored him with both the Allen Newell Award in 2003 and the Alan Turing Award in 2011. In 2011, he also received the David Rumelheart Prize for contributions to understanding human cognition, and the Harvey Prize for scientific achievement from the Technion. Pearl was elected to the National Academy of Sciences in 2014.

Pearl is the author of three influential books in his field: Heuristics (1984), Probabilistic Reasoning in Intelligent Systems (1988) and Causality: Models, Reasoning, and Inference (2000).

His current interests are artificial intelligence and knowledge representation, probabilistic and causal reasoning, nonstandard logics and learning strategies.

Pearl is the father of the late Wall Street Journal reporter Daniel Pearl, who was kidnapped and murdered in Pakistan in February 2002. In Daniel's memory, Pearl and his family founded the Daniel Pearl Foundation "to continue Daniel's life-work of dialogue and understanding and to address the root causes of his tragedy."



Stephen Schwartz (A'68)

Composer and Lyricist Doctor of Fine Arts

Stephen Schwartz is one of the most successful songwriters in the history of the American musical theater, winning three Academy awards, four Grammy awards, four Drama Desk awards and garnering six Tony Award nominations. He graduated from Carnegie Mellon in 1968 with a bachelor's degree in drama. While a student at CMU, he wrote "Pippin," which later opened on Broadway.

In 1971, Schwartz wrote the music and new lyrics for "Godspell," a show that also began at CMU and for which he won his first two Grammys. The next year, he collaborated with Leonard Bernstein on Bernstein's "Mass," which opened the Kennedy Center for the Performing Arts in Washington, D.C. In 1974, "Pippin" opened on Broadway, and at one point, three of his musicals — "Godspell," "Pippin" and "The Magic Show" — were all running on Broadway simultaneously, an unprecedented achievement for a young composer.

Schwartz also has worked extensively in film. He collaborated on the scores for the 1995 Disney feature "Pocahontas," for which he received two Academy awards and another Grammy, and for "The Hunchback of Notre Dame" in 1996. He won another Oscar for the song "When You Believe," from the 1998 animated film "The Prince of Egypt."

Schwartz's musical "Wicked," which opened in 2003, is currently running on Broadway and in touring productions around the world. In 2008, "Wicked" reached its 1,900th performance on Broadway, making Schwartz the only songwriter in Broadway history to have three shows with more than 1,900 performances.

Schwartz gives regular workshops and talks about his craft for CMU's drama and musical theater students.

COMMENCEMENT 2015

Schedule of Events

Commencement weekend at Carnegie Mellon involves much more than the ceremony itself. Below is a list of events for May 16-17.



Carl E. Wieman

Professor, Department of Physics & Graduate School of Education, Stanford University

Doctor of Science and Technology

Carl E. Wieman is a professor of physics and education at Stanford University. He shared the 2001 Nobel Prize in Physics (with Eric Allin Cornell and Wolfgang Ketterle) for fundamental studies of the Bose-Einstein condensate, work that has had enormous influence on subsequent research in atomic physics.

Wieman's main intellectual pursuit in recent years has been on improving undergraduate physics and science education. He has pioneered the use of experimental techniques to evaluate the effectiveness of various teaching strategies for physics and other sciences.

He has been widely recognized for his advocacy of teaching approaches that engage students more actively, improving learning of attitudes about science. He believes that faculty members should "approach the teaching of science like a science. That means applying to science teaching the practices that are essential components of scientific research, collect data and use it to guide conclusions and practice."

In 2004, he was named Professor of the Year by the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education. Wieman served as founding chair of the Board of Science Education of the National Academy of Sciences and was the founder of PhET which provides online interactive simulations that are used 45 million times per year to learn science.

From 2010-2012, he served as associate director for science in the White House Office of Science and Technology Policy. Wieman is a member of the Global Learning Council, chaired by CMU President Subra Suresh.

Saturday, May 16

8 - 9 a.m.

Phi Beta Kappa Honor Society Initiation Ceremony

McConomy Auditorium, first floor, CUC Caps and gowns are required. An optional, complimentary breakfast will precede the ceremony at 7:15 a.m. in the Connan Room, first floor, CUC.

8 a.m. - 8 p.m.

Cap & Gown Distribution Open

McKenna/Peter/Wright Room, second floor, CUC

9 a.m. - 2 p.m.

Commencement Welcome Area

Wean Commons, first floor, CUC

9 a.m. - 7 p.m.

University Store Open

First floor, CUC

9:30 a.m.

Navy ROTC Commissioning Ceremony

Soldiers & Sailors Memorial Hall (off campus)

4141 Fifth Ave., Pittsburgh, PA 15213

10 a.m.

Honors Ceremonies

Various locations across campus.

10 a.m. - 5 p.m.

University Store Sidewalk SaleOutside Store Entrance

11:30 a.m.- 1 p.m.

Human-Computer Interaction Institute (HCII) Undergraduate Commencement Presentation

Room 7500, Wean Hall A presentation for HCII graduates to

their families and peers.

4 - 6 p.m.

CMU 2015 Graduating Student Reception

Alumni House

The CMU Alumni Association will host a reception for all graduating students and their families. Snacks and nonalcoholic beverages will be provided.

5 - 7 p.m.

Carnegie Mellon Advising Resource Center (CMARC) Reception

Singleton Room, fourth floor, Roberts Engineering Hall Sponsors will send invitations directly to invitees.

7 p.m.

Robing for Doctor's Hooding Ceremony Participants

Rangos Hall, second floor, CUC Robing is for doctor's candidates and faculty hooders. Guests should proceed directly to the ceremony.

8 p.m.

Doctor's Hooding Ceremony

Wiegand Gym, first floor, CUC

Sunday, May 17

8 - 11 a.m.

Cap & Gown Distribution Open

McKenna/Peter/Wright Room, second floor, CUC

8 a.m. - 2 p.m.

Commencement Welcome Area

Wean Commons, first floor, CUC

8 a.m. - 5 p.m.

University Store Open

First floor, CUC

8:30 - 10 a.m.

SCS Breakfasts

SCS Undergraduate Breakfast

Perlis Atrium, third floor, Newell-Simon Hall

Collaborative Commons, sixth floor, Gates & Hillman Centers

SCS Graduate Breakfast

9 a.m. - 2 p.m.

University Store Sidewalk Sale

Outside Store Entrance

10 a.m.

Robing for Commencement Participants

Various locations across campus.

10:15 a.m.

Procession of Graduates

11 a.m.

Main Commencement Ceremony

Gesling Stadium

Noon - 5 p.m.

Cap & Gown Return Open

McKenna/Peter/Wright Room, second floor, CUC





AT COMMENCEMENT, THE CARNEGIE MELLON PIPES AND DRUMS BAND WILL LEAD THE PROCESSION OF FACULTY AND PLATFORM GROUP MEMBERS INTO GESLING STADIUM.

COMMENCEMENT 2015

Diploma Ceremonies Graduates will receive their diplomas at department diploma ceremonies. Caps and gowns are required.

Architecture

Saturday, May 16 Ceremony: 2 p.m. Philip Chosky Theater, Purnell Center Reception: following ceremony Great Hall, CFA

Art

Sunday, May 17 Reception: 12:30 p.m. Regina Gouger Miller Gallery, Purnell Center Ceremony: 3 p.m. Philip Chosky Theater, Purnell Center

Bachelor of Humanities & Arts/ Bachelor of Science & Arts/ Bachelor of Computer Science & Arts

Sunday, May 17 Ceremony: 8:30 a.m. Kresge Theater, CFA Reception: 9:30 a.m. Alumni Concert Hall, CFA

Biological Sciences *

Saturday, May 16 Ceremony: 2 p.m. Auditorium, Mellon Institute 4400 Fifth Ave. Reception: following ceremony Social & Conference Rooms, Mellon Institute

Biomedical Engineering

Saturday, May 16 Ceremony: Noon McConomy Auditorium, CUC Reception: 1 p.m. Tartans Pavilion, Resnik House

Business Administration (Bachelor's) +

Sunday, May 17 Reception: 12:30 p.m. Ceremony: 2 p.m. Soldiers & Sailors Memorial Hall 4141 Fifth Ave.

Business Administration (Master's & Doctor's)

Saturday, May 16 Ceremony: 2 p.m. Reception: following ceremony Soldiers & Sailors Memorial Hall 4141 Fifth Ave.

Chemical Engineering

Saturday, May 16 Ceremony: 3 p.m. Carnegie Music Hall, Carnegie Museum **English** 4400 Forbes Ave. Reception: following ceremony Carnegie Music Hall Foyer

Chemistry +

Sunday, May 17 Ceremony: 2 p.m. Auditorium, Mellon Institute 4400 Fifth Ave. Reception: following ceremony Social & Conference Rooms. Mellon Institute

Civil & Environmental Engineering +

Sunday, May 17 Ceremony: 1:30 p.m. Reception: following ceremony University of Pittsburgh Alumni Hall 4227 Fifth Ave.

Design

Saturday, May 16 Ceremony & Reception: 3 p.m. Rangos Hall, CUC

Drama

Sunday, May 17 Ceremony: 1 p.m. Philip Chosky Theater, Purnell Center Reception: following ceremony Lobby, Purnell Center

Economics +

Sunday, May 17 Reception: 12:30 p.m. Ceremony: 2 p.m. Soldiers & Sailors Memorial Hall 4141 Fifth Ave.

Electrical & Computer Engineering *

Sunday, May 17 Ceremony: 1:30 p.m. Reception: following ceremony Petersen Events Center 3719 Terrace Street

Energy Science, Technology & Policy *

Sunday, May 17 Ceremony & Reception: 8 a.m. Singleton Room, Roberts Engineering Hall

Engineering & Public Policy *

Sunday, May 17 Ceremony & Reception: 7:30 a.m. Rangos 2 and 3, CUC

Engineering & Technology Innovation Management *

Sunday, May 17 Ceremony & Reception: 7:30 a.m. Rangos 2 and 3, CUC

Saturday, May 16 Ceremony: 2:30 p.m. McConomy Auditorium, CUC Reception: following ceremony Schatz Dining Room, CUC

Entertainment Technology Center

Sunday, May 17 Reception, followed by dinner: 4 p.m. Ceremony: following dinner East Club Lounge, Heinz Field 100 Art Rooney Ave.

Heinz College

Saturday, May 16 Ceremony: 2 p.m. Reception: following ceremony Petersen Events Center 3719 Terrace Center

History

Sunday, May 17 Breakfast Reception: 8 a.m. Lower Level Coffee Lounge, Baker Hall Ceremony: 9 a.m.

Giant Eagle Auditorium, Baker Hall

Information Networking Institute

Sunday, May 17 Ceremony: 3:30 p.m. Reception: 4:30 p.m. Rodef Shalom Congregation 4905 Fifth Ave.

Information Systems (Dietrich College) *

Saturday, May 16 Ceremony: 6 p.m. Philip Chosky Theater, Purnell Center Reception: following ceremony Lobby, Purnell Center

Integrated Innovation for Product & Services *

Saturday, May 16 Ceremony: 4:30 p.m. Reception: following ceremony Gregg Hall/Room 100, Porter Hall

Materials Science & Engineering +

Sunday, May 17 Ceremony: 1 p.m. Reception: following ceremony The Twentieth Century Club 4201 Bigelow Boulevard

Mathematical Sciences

Sunday, May 17 Ceremony: 1 p.m. McConomy Auditorium, CUC Reception: following ceremony Perlis Atrium, Newell-Simon Hall

Mechanical Engineering *

Saturday, May 16 Ceremony: 3 p.m. Wiegand Gymnasium, CUC Reception: following ceremony Tartans Pavilion, Resnik House

Modern Languages

Sunday, May 17 Ceremony: 8:30 a.m. Rangos 1, CUC Reception: following ceremony Skibo Coffeehouse, CUC

Music

Sunday, May 17 Ceremony: 12:30 p.m. Great Hall, CFA Reception: following ceremony Alumni Concert Hall, CFA

Philosophy

Sunday, May 17 Breakfast Reception: 8 a.m. Ceremony: 9 a.m. Greg Hall/Room 100, Porter Hall

Sunday, May 17 Ceremony: 12:30 p.m. Reception: following ceremony Room 7500, Wean Hall

Psychology

Sunday, May 17 Ceremony & Reception: 12:30 p.m. Rangos Hall, CUC

School of Computer Science +

Sunday, May 17 Ceremony: 1:30 p.m. Reception: following ceremony Carnegie Music Hall, Carnegie Museum 4400 Forbes Ave.

Silicon Valley

The diploma ceremony will take place in August on the Silicon Valley campus.

Social & Decision Sciences

Sunday, May 17 Breakfast Reception: 7:30 a.m. Schatz Dining Room, CUC Ceremony: 8:30 a.m. McConomy Auditorium, CUC

Statistics +

Sunday, May 17 Ceremony: 1:30 p.m. Reception: following ceremony Winchester Thurston School Auditorium 555 Morewood Avenue

Student-Defined Majors (Dietrich College)

Sunday, May 17 Ceremony: 9 a.m. Reception: following ceremony Adamson Wing, Room 136A (upper level lobby), Baker Hall

- * Guests are limited. Contact the department or see cmu.edu/commencement for details.
- + Complimentary shuttle service will be available to transport guests to the ceremony.

Walking and driving directions to off-campus sites will be available at the Commencement Welcome

CUC = Cohon University Center CFA = College of Fine Arts Building

New Building, New Vision

Tepper School To Move Front and Center

■ Bruce Gerson

Exciting. Cool. Interconnected. Entrepreneurial. Engaging. And how about, amazing!

Those were just some of the words used to describe designs for the new home of the Tepper School of Business, the first project slated for the Tepper Quad on the Morewood parking lot site.

Beautiful computer-generated renderings for the 295,000 square-foot, five-story marvel with underground recently unveiled by the project team, including Tepper School Dean Robert Dammon, faculty rep Bryan Routledge, architect Buzz Yudell, Associate Vice

parking — yes, parking for 200 — were







Provost for Campus Design and Facility Development Ralph Horgan, and Director of Design Bob Reppe.

But, before the stunning images were revealed, Dammon reflected on the significance and impact the new building and location will have for the business school.

"It's much more than a building, it's a new vision for the business school of the future," said Dammon, who noted that business schools are usually built on the edge of campus to keep their students focused on strictly business.

"We want to create an environment that will bring all of campus together so we can collaborate on problems that really matter to the world," he said. "We have great strengths across campus and we want to be connected to that as a business school."

Dammon said the b-school also must be a better asset to the campus.

"We're moving from the edge [of campus] to the center, not just physically, but intellectually as well," he said.

Yudell called the project, which aims to set the stage for future campus growth to the north, an extraordinary opportunity. Yudell is a principal of Moore Ruble Yudell Architects and Planners of Santa Monica, Calif.

"As a design team, there's nothing more exciting than to make a physical place that supports, enhances and nurtures the ongoing vision and mission for the school and the university. We're designing for today, and 10, 20 years from now," he said.

Yudell outlined several key principles the team used to shape their work. Among them were creating a hub for campus; enlivening campus life with mixed uses; energizing collaboration and innovation; creating domains for undergraduate and graduate students; and integrating technology to support the delivery of curricula.

He said this "Tepper School Plus" would be welcoming, "green," flexible, adaptable and sustainable, providing diverse, rich, multi-program experiences with many choices. He said it would

be grand and intimate, lively and quiet, public and private.

"A rich ecology is one that is diverse and changing," he said.

The attractive sculptured exterior of the building will consist of the Hornbostel cream-colored brick and glass with porches and bays.

"We wanted to use the original palette and push it forward," Yudell said of the yellow brick. "We can use the prevailing materials in a new way to connect to the history and still push it

He said by using the architectural history of the university, the building speaks to visitors, in a way, telling them that they're in a beautiful setting and entering into the CMU district.

Interior spaces will be flooded with natural light, warm fabric furnishings and wood to promote collaboration and interaction. Yudell said the inside would be lively, even the stairways. He called the wide ergonomically sound stairways, "social stairs" that encourage people to

"Sitting is the new smoking," he said.

The ground floor and first level off of Forbes Avenue will include an 18-foot high atrium inside the front door, a 600seat auditorium that can be reconfigured into different sizes, a Technology-Enhanced Learning Center, a fitness center with locker rooms and showers, and a welcome center.

The second floor, accessible from the entrance facing the Cut, will include several dining options, such as grab & go and various cooking stations.

"Food is central to the life of a building," Yudell said.

Levels two and three will contain 18 classrooms and flexible academic support spaces, an undergraduate and graduate student commons area, breakout rooms and collaborative areas, and an Entrepreneurship Center. Classrooms will be equipped with technology for production and linking to CMU campuses around the globe.

The fourth and fifth floors will be used for faculty, Ph.D. and staff offices and meeting space. Yudell said there would be a "faculty neighborhood" instead of a faculty lounge.

"Faculty have given up having a faculty lounge in favor of having spaces between offices to become part of a mixing bowl to generate interaction and make it a unique place," he said.

Dammon said the space would draw the campus community in.

"We hope people come over to collaborate on research and education, for social reasons, to eat, to workout. We want them to come and never leave," he said.

Tepper Quad Site Prep Begins May 19

Site preparation for the Tepper Quad project is scheduled to begin two days after commencement on Tuesday, May 19. The work will entail digging a 28-foot-deep trench across Forbes Avenue to bring utility lines from main campus to the Tepper Quad site at the Morewood parking lot.

The work will last through the summer and reduce traffic to one lane in each direction between the Robert Mehrabian Collabora-

tive Innovation Center (RMCIC) and Morewood Avenue. Vehicles must turn right from Forbes to enter the Morewood lot; left-hand turns into the lot will be prohibited. Pedestrian detours will be in effect as well.

Bus stops will be affected. The westbound bus stop across from Cyert Hall will remain, however the westbound stop across from Hamburg Hall will be removed. The eastbound stop near Hamburg Hall will move westward toward the RMCIC drive.

The utility work will be completed before the start of Orientation in late

The Tepper Quad construction project will cause about 345 of the 640 Morewood Lot spaces to be reassigned during this spring's parking allocation process. Those spaces will be compensated by new surface lots on Filmore Street and S. Neville Street, and additional spaces in the lot located south of Forbes at Craig Street and the RMCIC lot.

CMU Honors Magnificent Mentors, Terrific Teachers

CONTINUED FROM PAGE ONE



REBECCA NUGENT

to engage them both in and out of the classroom.

"Rebecca's classroom teaching is simply inspirational," wrote her nominators, professors Joel Greenhouse, Brian Junker and Mark Schervish.

Nugent actively tries to incorporate challenges and contests into every course she teaches and encourages students to try to surprise her. She expects all her students to try their best and to contribute, and she sincerely believes that every student has something to offer. This kind of personal interaction contributes to the overall sense of community that she builds in her classroom.

Nugent is fearless when it comes to revising courses to meet the diverse needs of her students. She has changed exam formats to accommodate her students' varying levels of programming skills, leveling the playing field and, rewarding preparation.

She revised and renamed the Modern Regression capstone course, introducing modern statistical methods with an emphasis on experiential learning and balancing the practice of statistics with theory. In fall 2006, when she first taught the course, there were 25 students. In fall 2014, 131 students were enrolled.

"We are all familiar with, not to mention intimidated by, the challenges of teaching large introductory courses," her nominators wrote. "Few of us, however, have had to confront the unique challenges of teaching large upper level courses. Rebecca has done this repeatedly and makes it look easy."

She recognizes the importance of interacting with real data for training. As a result, almost all of her courses involve writing exams or projects that use large data sets from real research projects.

Every semester she searches for appropriate data sets, cleans and analyzes the data, does the background research on the problem, and writes a structured exam/project based on the data. She writes at least 10 of these a year and rarely uses the same data set twice. She has collected these research problems/data sets into an easily searchable library that is quickly becoming a fantastic resource for other instructors to use both at CMU and at other universities.

The Award for Outstanding Contributions to Academic Advising and Mentoring

Bonnie Olson



BONNIE OLSON

She's the glue that holds the mechanical engineering undergraduate program together, according to colleagues who nominated Bonnie Olson for the Academic Advising Award.

Before Olson joined the Department of Mechanical Engineering in 2003, faculty members were responsible for all undergraduate advising. But as the department grew, it had become increasingly clear that students would be better served if someone solely dedicated to advising helped carry the load.

Olson was the right person at the right time, her colleagues said, and she quickly exceeded expectations, developing the position far beyond the original plan.

Some describe her ability to serve students as "uncanny."

"Walking across campus with her is to experience an impressive display of memory. She remembers who has had what experience and can make connections between students. She has a large number of advisees, but it seems like she knows them all by name," said Department Head Allen Robinson, Professor Alan McGaughey and Business Manager Keri Baker, who nominated her for the award.

Olson treats each student as an individual, listening to and understanding their goals and interests and then helping them effectively plan their coursework and other activities — quite the juggling act, as it can include double majors, self-defined majors, minors and study abroad.

Olson is an active member of the undergraduate education committee, and is a voice for the students she serves. She spearheaded a student trip to China in 2013, putting in many hours outside of her normal day to make sure everything went as planned. And it did.

She leads the process of nominating students for internal and external awards. And last year, she further reduced the load on faculty by developing an online system to assist with awards-related decision-making.

Olson has developed an advising manual based on her experience and has been an advocate and pioneer for study-

abroad programs, expanding opportunities for students and also streamlining the process for them.

Since Olson was hired, the mechanical engineering undergraduate program has doubled in size, and student-reported satisfaction with advising has noticeably risen. Mechanical engineering consistently ranks first or second among CMU's engineering departments in the annual Undergraduate Advising Survey, and is well above other departments of comparable size.

The college's Senior Engineering Exit Assessment added a section on advising in 2014, and graduating mechanical engineering students rated advising performance at 95 percent, the highest of all the engineering departments.

"It's hard to imagine our department operating without Bonnie," Robinson said.

The Barbara Lazarus Award for Graduate Student and Junior Faculty Mentoring

Jeanne VanBriesen



JEANNE VANBRIESEN

From the moment she arrived at CMU in 1999, Jeanne VanBriesen has been networking.

While advancing through the professorial ranks, she has mentored a growing number of junior faculty members both inside and outside the university, and transformed the academic experience for graduate students who seek her advice and counsel.

"Jeanne is generous with her time and sensitive to the challenges junior faculty face in the competitive funding arena, as well as in their efforts to build meaningful professional and personal success," wrote Hamerschlag University Professor and Civil and Environmental Engineering Department Head David Dzombak, who nominated her for the award.

VanBriesen has mentored 15 civil and environmental engineering Ph.D. students through the completion of their degrees; 12 were women. When Van-Briesen initially met Shannon Isovitch, one of her former Ph.D. students who is now manager of innovation initiatives at Alcoa, Isovitch was working full-time as an engineering consultant, finishing her master's degree on a part-time basis and considering pursuing a doctoral degree.

VanBriesen helped her to reach that decision.

"Having been outside of the fulltime student world for almost 10 years when I began my Ph.D. work, I found it challenging to completely understand and meet expectations," Isovitch said. "As my adviser, Jeanne provided me with support and inspiration while also letting me find my own way. This often times meant I had to struggle to find answers, but I was better for it in the end."

VanBriesen has an intensive, student-centered mentoring style that ensures the individual develops both personally and professionally. She helps her students develop their abilities to the fullest and then guides them in deciding how to align their talents with their own goals.

She continues to offer support and mentorship to a number of junior women in engineering and science at CMU, generally through informal coffee and lunch meetings to discuss research, the promotion and tenure process, and balancing the competing demands for time that are so common during the pretenure years for faculty.

VanBriesen frequently presents to groups of women on the topics of life in graduate school, advising and mentoring, the academic job search, and juggling work and family.

The Untenured Women Faculty in Engineering lunch meeting VanBriesen co-organized 15 years ago is still going strong at CMU today, although she and all of the original members have technically "graduated" from the group by attaining their tenure at the university.

Mark Gelfand Service Award for Educational Outreach

Carol Frieze

With a record-breaking number of women in its freshman class this year, Andrew Moore, dean of the School of Computer Science, and several colleagues of Carol Frieze thought it was the perfect time to nominate her for the Mark Gelfand Award for Educational Outreach.

Over the past 15 years, Frieze has worked to create and encourage academic, social and professional opportunities for underrepresented groups in computer science through Women@SCS, which she directs, and SCS4ALL, which she co-founded last year.

"Carol engages and encourages the many students of these organizations through her extensive knowledge, experience, gentle guidance, availability and patient listening," Moore said. "Under her guidance, the students grow into teachers, speakers, leaders, organizers and mentors — professionals in technology who, in turn, pay it forward to others."

One of Frieze's signature strengths is her insistence that things are student-run.



CAROL FRIEZE

"She guides students rather than doing things for them," Moore added. "She offers them leadership positions and guides them to shine. When asked to speak or present, Carol often gives the opportunity to a graduate student instead."

At the request of a graduate student 10 years ago, Frieze started TechNights to introduce middle school girls to computer science. Hundreds of middle school girls have since discovered and explored computer science while having fun, and through the program girls meet others interested in technology, sometimes for the first time.

Frieze and her students regularly disperse to share computer science "roadshows" in schools, coffee shops and other venues. Frieze recruits and trains CMU student volunteers in response to requests from schools or programs at museums.

Every other year Frieze brings about 20 graduate and undergraduate CMU students to the Grace Hopper Celebration of Women in Computing Conference. Often Frieze and her students present at Grace Hopper, sharing what they have accomplished at CMU.

Her 10 publications with Lenore Blum, Bernardine Dias, Jeria Quesenberry and others present groundbreaking work in how to understand and increase women's participation in computer science.

Recently, she co-authored a book with Quesenberry called "From Difference to Diversity: Women in Computing at Carnegie Mellon University," in which her primary objective was to share the success stories at CMU in the hope that other institutions and schools seeking to improve the underrepresentation of women in computing will have tried and true tools to leverage.



The Education Award Winners pose with their medals (L-r): Rebecca Nugent, Jeanne VanBriesen, Carol Frieze and Bonnie Olson.



CAROL FRIEZE AND STUDENT JEN LIAO



BONNIE OLSON AND STEVE PAJEWSKI



JEANNE VANBRIESEN AND EVERETT TADEMY



REBECCA NUGENT AND HER MOTHER, CONNIE

CELEBRATION EDUCATION

College Teaching Awards

Below are the 2015 recipients.

COLLEGE OF ENGINEERING
Benjamin Richard Teare Jr.
Teaching Award
Donald E. Thomas
Professor, Department of Electrical
& Computer Engineering

COLLEGE OF FINE ARTS
Henry Hornbostel Teaching Award
Bruce M. Hanington
Associate Professor and Director of
Graduate Studies, School of Design

DIETRICH COLLEGE OF HUMANITIES & SOCIAL SCIENCES Elliott Dunlap Smith Award for Teaching and Educational Service Yasufumi Iwasaki Associate Teaching Professor of Japanese Studies, Department of Modern Languages

H. JOHN HEINZ III COLLEGE Martcia Wade Teaching Award David Lassman Distinguished Service Professor

MELLON COLLEGE OF SCIENCE Julius Ashkin Teaching Award Susan T. Graul Assistant Teaching Professor, Department of Chemistry

The Richard Moore Education Award Helmut Vogel Professor, Department of Physics

SCHOOL OF COMPUTER SCIENCE Herbert A. Simon Award for Teaching Excellence Robert J. Simmons Assistant Teaching Professor, Department of Computer Science

TEPPER SCHOOL OF BUSINESS
Gerald L. Thompson Teaching Award
in the B.S. Business Administration
Program
Mustafa Akan
Associate Professor of Operations

Management

Richard M. Cyert Teaching Award in the B.S. Economics Program
Chris Sleet
Professor of Economics

MBA Geroge Leland Bach Excellence in Teaching Award Sevin Yeltekin Associate Professor of Economics

READ MORE ONLINE AT CMU.EDU/PIPER

Oscar Winner Returns To Share Virtues of CMU Drama Education

■ Erin Keane Scott

Academy Award-winning actress Holly Hunter (A'80) returned to the School of Drama the first week of April to talk with students about the craft of acting and her own career trajectory.

The actress is known for such diverse roles as Ed in "Raising Arizona" and the voice of Elastigirl in "The Incredibles." She is the only CMU graduate to have won an Academy Award for acting; she won for her role as a mute woman named Ada in "The Piano."

Hunter got her start as an actress in high school plays in her hometown in Georgia. When she traveled to upstate New York for summer stock, the older, professional actors told her that Carnegie Mellon was the place to become a trained actress. She recalls her audition to the School of Drama as a two-day process, taking place in the Kresge Theater and Margaret Morrison Hall.

"Going to school at Carnegie
[Mellon] gave me incredible confidence
and a sense of entitlement to act, which
was a total advantage when I went to
New York to start my career," Hunter
said in a southern accent punctuated by
several decades of life in the Big Apple.
"You leave here knowing how to work.
You're confident; training here gives you
an orientation to yourself — almost like



ACADEMY AWARD-WINNING ACTRESS AND SCHOOL OF DRAMA ALUMNA HOLLY HUNTER DISCUSSES HER CRAFT, HER CMU TRAINING AND HER CAREER TRAJECTORY WITH DRAMA STUDENTS.

seeing yourself as an instrument that you learn to play."

Though some of Hunter's most visible work has been in film, she's also an accomplished thespian. She recently closed an off-Broadway revival of the 1971 play "Sticks and Bones" by David Rabe, co-starring Bill Pullman.

She still employs techniques she learned as a CMU student when she plays a role — notably, vocal warmups.

"There are things I do every day when I'm performing that I learned at Carnegie. Sometimes you're the only one doing it and it feels lonely," she said. "But then you start to feel that it's something that makes you special."

When answering a student's question about the transition between theater and film she had great experiences to share.

"When I do a movie or TV, I memorize the whole script," she said. "It's a takeaway from Carnegie. That way when the weather's bad and we have to shoot another scene indoors, I'm ready."

She also recounted an experience on the set of 1988's "Broadcast News" in which lead actor William Hurt took her hand and told her he could tell she was afraid of the camera, but that it was okay, because he was, too.

"He told me, 'It's okay to be afraid because it means that something is at stake for you," she said. "I've learned to make friends with my fear and use it for the character."

Not everyone will experience the same fear or the same career path, and she said she's careful not to give advice to students. Rather, she prefers to tell them, "This is what I did. It worked for me. You have to travel your own path, because everyone is different."

Hunter plays the role of a U.S. senator in the 3-D movie "Batman v Superman: Dawn of Justice," starring Ben Affleck and scheduled for release in 2016.

On the Clock: Ph.D. Students Embrace 3-Minute Thesis Challenge

■ Cindy Carroll

Summarizing your research and "selling" its importance to a general audience in as little as three minutes can be a tall order for any scientist.

That's the challenge of the 3-Minute Thesis (3MT) competition for Ph.D. students, which began in 2008 at the University of Queensland and quickly expanded to hundreds of universities in 18 countries.

Keith Webster, dean of University Libraries at CMU, was working at the University of Queensland at the time, and he saw firsthand the value in the competition as well as its impact.

"It was an opportunity for students to strengthen their communication skills and a vehicle to showcase the depth and breadth of talent amongst early career researchers," Webster said. "With CMU's incredibly talented Ph.D. pool, it was a logical match."

Webster introduced the competition to CMU in 2014, and students, faculty and staff have embraced it.

He says the entire competition, from qualifying rounds through the final championship, demonstrates the exceptional caliber of CMU's research students and gives them the opportunity to share their work with an audience outside their disciplines.

"To engage a non-specialist audience, students must convey the big picture of their research, a skill they will depend on to gain support for their work throughout their careers," he said.

Contestants are allowed just one static slide to accompany their presentation. A panel of judges selected first, second and third place while the audience selected a People's Choice winner. All winners received cash prizes up to \$3,000 supporting research or travel.

This year's first-place winner was Annie Arnold, a first-year doctoral candidate in chemistry who is working to develop a biodegradable bone implant that will promote the natural growth of bone tissue to mend injuries.

"3MT gave me the opportunity not only to share how exciting my research is, but also to convey that chemistry is fun and has the capability to really help people," Arnold said.

Michael Craig, a first-year student in engineering and public policy who is researching the impact of climate change on electrical power generation, won second place in the competition.

"Condensing everything to three minutes is tough, but it's even harder to find the right balance between complexity and simplicity," he said. "I didn't want to talk down to the audience, but I knew if I assumed knowledge of my discipline, or used too much lingo from the power sector, I would lose them."

Sam Ventura, a fifth-year candidate in statistics took third place. Vincent De-George, who studies materials science and engineering, won over the audience to take the People's Choice title.

Craig encourages other doctoral students to accept the challenge for the benefits it brings.

"Stop hesitating and do it. It's great presentation practice and there are solid rewards to be had," he said.

"Everyone should have the type of narrative that's required in 3MT. If you don't, it's going to be much harder to write future grant or fellowship applications," Craig said.



VICE PRESIDENT OF RESEARCH AND PROVOST-DESIGNATE FARNAM JAHANIAN (RIGHT) PRESENTS ANNIE ARNOLD (CENTER) WITH THE FIRST-PLACE PRIZE FOR THE 3-MINUTE THESIS COMPETITION, AS LAST YEAR'S WINNER DAVID ROLLINSON (LEFT) AND DEAN OF LIBRARIES KEITH WEBSTER LOOK ON.