High school students take scientific journeys on campus

On a recent balmy afternoon, three high school students kept cool beneath an unusual umbrella outside the Architectural Laboratory at Princeton University. The students had made the umbrella out of heat-reflective Mylar blankets and lined its underside with a network of skinny black pipes. Water running through the pipes cooled the surface, allowing it to absorb the heat radiated by human bodies.

“’It’s even better than being in the shade,’” said Forrest Meggers, an assistant professor of the School of Architecture and the Andlinger Center for Energy and the Environment. “This way you can make people feel more comfortable even though you’re not changing the air temperature.”

The students were collaborating with Meggers and his research team on designs that aim to reduce dramatically the energy required for cooling and heating. They were among 39 high school students who conducted research at Princeton this summer through the University’s Laboratory Learning Program.

“This gives students a chance to see what it’s actually like to do research in engineering and the natural sciences — to develop problem-solving skills and to gain a deeper level of knowledge,” said program administrator Karla Ewalt, associate dean for research in the Office of the Dean for Research.

“Research is the experience of trying to learn something new or develop a new tool.”

Nicholas Houchois, a senior at St. Paul’s School in Concord, New Hampshire, assembled and programmed an automatic sensor for the cooling umbrella, which measures temperatures in a dome pattern at two-minute intervals throughout the day. Data from the sensor would allow him to determine how efficiently energy and...
Denis Feeney, the Giger Professor of Latin and professor emeritus at New College, University of Oxford; the University of Wisconsin-Madison; the University of Bristol; and the University of Edin-

Bermingham, Alabama. She also has led several restaurants and large catering events in Alabama.

Haneef began her career in food and beverage depart-
ments at five-star hotels and restaur-

Newspaper advertisement style

In compliance with Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, and other federal, state and local laws, Princeton University does not discriminate on the basis of race, color, sex, sexual orientation, gender identity, religion, national or ethnic origin, disability, age, veteran status in any phase of its employment process or in any program or activity administered by the University. If you think you have been the victim of discrimination or sexual harassment, you may report it by calling the Title IX Coordinator at (609) 258-3319 or by submitting an online complaint form on Princeton’s electronic Title IX complaint process. If you have a complaint regarding discrimination or sexual harassment, you may also contact the Office of the Vice President for Institutional Equity and Diversity, 205 Nassau Hall, Princeton, NJ 08544, 609-258-6110, Title IX Coordinator.
The Princeton University Board of Trustees has approved the appointments of 20 full-time faculty members, including one full professor and 19 assistant professors.

Assistant professors

Mohamed Abou Donia, in molecular biology and computational mathematics, will join the faculty this fall from the University of California-San Francisco, where he has been a postdoctoral fellow since 2009. He earned his Ph.D. at the University of Utah and his bachelor’s degree at Suez Canal University. Abou Donia studies host-pathogen interactions.

Nanomi Ando, in chemistry, joined the faculty this fall from the Massachusetts Institute of Technology and the Howard Hughes Medical Institute, where she has been a postdoctoral fellow since 2009. Ando, who studies biophysics and proteins, earned her Ph.D. at Cornell University and her B.S. at MIT.

He Biau, in history and East Asian studies, joined the faculty this fall. A scholar of late imperial and early modern China, Biau earned her bachelor’s degree at the University of Toronto, and her Ph.D. at Harvard University.

Ian Bourg, in civil and environmental engineering and the Princeton Environmental Institute, will join the faculty at the end of the fall term from the Lawrence Berkeley National Laboratory, where he has been since 2005. He received his Ph.D. from the University of California-Berkeley, and earned bachelor’s and master’s degrees from the National Institute of Advanced Science and Technology of Tohoku, France. Bourg specializes in environmental geochemistry and groundwater hydrology.

Donnacha Dennehy, in music, joined the faculty this fall. He specializes in music theory and computational mathematics.

Karen Emmrich, in comparative literature, will join the faculty in the spring from a position at the University of Oregon, where she has been an assistant professor since 2012. She studies comparative literature and modern Greek literature. Emmrich was a postdoctoral fellow at Princeton in 2010-11, and she was an undergraduate at the University of Toronto. Emmrich will join the faculty this fall from Duke University, where she has been an assistant professor since 2012. She previously was a postdoctoral fellow at the University of Chicago and received her Ph.D. from UC-Berkeley and earned bachelor’s and master’s degrees at Stanford University. Emmrich studies humanities and machine learning.

Maryam Farbod, in economics, will join the faculty in the 2015 fall term. She earned her Ph.D. at the University of Chicago, received master’s degrees at the London School of Economics and Political Science, and a bachelor’s degree from the University of Texas at Austin. She specializes in identifying and understanding economic opportunities and challenges.

Margaret Faye, in sociology, will join the faculty in the 2015 fall term from Harvard, where she has been a postdoctoral fellow since 2012. She previously was a postdoctoral fellow at the University of Chicago and received her B.A. from Brown University. Faye’s research interests include sociology of the family, sociology of gender and quantitative methods.

Eldad Hazan, in computer science, joined the faculty this fall from the Israel Institute of Technology, where he has been teaching since 2010. He previously was a research staff member at IBM Almaden Research Center, a postdoctoral fellow at Georgia Institute of Technology, and a graduate student at Columbia University. He specializes in machine learning and optimization.

Egemen Kallem, in mechanical and aerospace engineering and the Andlinger Center for Energy and the Environment, joined the faculty this fall from the University of California, Berkeley. He specializes in wind energy, solar energy, and energy storage.

Samy Walker, in operations research and financial engineering, joined the faculty this fall from the Pennsylvania State University. Walker specializes in operations research and financial engineering.

Jiadong Yang, in mathematics, joined the faculty this fall from the University of Chicago. Yang earned his Ph.D. from the University of Chicago and received his bachelor’s degree at the University of Illinois at Urbana-Champaign.

Sayan Zoph, in computer science, joined the faculty this fall from the University of California-San Diego. Zoph is a pioneer in deep reinforcement learning.

Sayan Zeybek, in Near Eastern studies, will join the faculty in fall 2015 from the University of Chicago, where she has been a postdoctoral fellow since 2012. Zeybek’s research focuses on gender and culture in the Middle East. She earned her bachelor’s and doctoral degrees at the University of Vienna.

Carolina Mangone, in art and archaeology, will join the faculty in fall 2015 from Columbia, where she has been a postdoctoral fellow since 2013. A scholar of early modern European art history, Mangone earned her B.A. at the University of Calgary and her Ph.D. at the University of Toronto.

Carolyn McRie, in ecology and evolutionary biology and the Princeton Neuroscience Institute, joined the faculty this fall from Rockefeller University, where she had been a postdoc since 2008. A graduate of Williams College, she received her Ph.D. at the University of California-Davis. McRie specializes in genetics and neurobiology.

Kinshi Nishikawa, in English and African American studies, joined the faculty this fall from the University of Notre Dame, where he has been an assistant professor since 2012. Specializing in African American studies and English, he previously was a postdoctoral fellow at Northwestern University. Nishikawa earned his B.A. at Dartmouth College and his Ph.D. at Duke.

Jonathan Pilkow, in psychology and the Princeton Neuroscience Institute, joined the faculty this fall from UT-Austin, where he has been an assistant professor since 2009. Previously a postdoctoral fellow at University College London, Pilkow studies mathematical and computational neuroscience. He holds a B.A. from the University of Arizona and a Ph.D. from New York University.

Christina Riehl, in ecology and evolutionary biology, will join the faculty in fall 2015 from Harvard, where she has been a junior fellow since 2012. A behavioral ecologist, she previously was a postdoctoral fellow at the Smithsonian Tropical Research Institute. Riehl earned her B.A. at Harvard and her Ph.D. at Princeton.

Jaed Primack, in molecular biology, will join the faculty at the end of the fall term from Harvard University. He earned his Ph.D. at Harvard and has been a postdoctoral fellow since 2012. Primack specializes in molecular biology.

The Princeton University Board of Trustees has approved the appointments of 20 full-time faculty members, including one full professor and 19 assistant professors. They will join the faculty at the end of the fall term from Columbia University, where she has been teaching since 2005. She was an instructor at Princeton from 2003 to 2005 and earned her Ph.D. at the University of California, and she received her Ph.D. at Columbia.

Barbara Engelhardt, in computer science, joined the faculty this fall from Duke University, where she has been an assistant professor since 2012. She previously was a postdoctoral fellow at the University of Chicago and received her Ph.D. from UC-Berkeley and earned bachelor’s and master’s degrees at Stanford University. Engelhardt studies bioinformatics and machine learning.

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Kinshi Nishikawa, in English and African American studies, joined the faculty bolster the impact and milestone of the Southern Ocean Carbon and Climate Observations and Modeling program, or SOCCOM, will create a biogeochemical and physical map of the ocean, which captures the ocean’s carbon cycle and hundreds of robotic floats deployed around Antarctica.

An analysis of millions of Arabic-language tweets confirms high levels of anti-Americanism there, provides new and interesting information about attitudes towards the Middle East toward particular U.S. policies, they tweet to make public sentiment in ways opinions polls cannot. The findings also highlight policy challenges — and opportunities — for the United States in the Middle East, said researchers at Princeton and Harvard University.
Community ties

This issue of the Princeton University Bulletin is being mailed to residents of the local community on behalf of the Office of Community and Regional Affairs.

Led by Kristen Appelget, director of community and regional affairs, and Erin Metro, associate director for community relations, the office serves as a bridge between the University and the community. Staff members work with county and municipal government officials, and with a wide variety of community organizations, to enhance the quality of life throughout the Princeton region.

The office manages University/community relationships in areas involving financial contributions, land use, affordable housing, transportation, environmental impact and local economic development.

Staff members also oversee a wide array of community relations initiatives, such as the Community Auditing Program and the Program in Continuing Education, the Surplus Equipment Donations Program, and the community use of University facilities. The office also assists in the coordination of the program in which Princeton University employees serve as volunteer firefighters with the Princeton Fire Department. In addition, the office participates in the organization of numerous arts and entertainment initiatives for the campus and the community, such as Community and Staff Day and the Communiversity spring festival.

For more information about the Office of Community and Regional Affairs, call 609-258-3204, visit 4 Mercer St., or go online at www.princeton.edu/community.

Community and Staff Day unites students and families for football and fun

With a determined look on her face, 8-year-old Ellie Davis pulled herself forward on a rowing machine as a crowd gathered around, cheering on the girl in tiger ears and an orange tutu.

“C’mon, Ellie!” said members of the Princeton University varsity crew team and her family members. “Great job!”

Davis, whose sister Mary Kate is a Princeton freshman, was one of many visitors to campus Sept. 27 for the annual Community and Staff Day, organized by the Office of Community and Regional Affairs. This year’s activities included a youth sports clinic hosted by University student-athletes; the Princeton football team’s home opener against Davidson College, to which area residents received free tickets; a Family Fun Fest with children’s entertainment and crafts and an information fair for University and community organizations; and a post-game fireworks show. More than 11,000 people attended the game, a 56-17 victory for the Tigers.

“We had perfect weather, a large and a big win for the Tigers. We were delighted by the attendance and the enthusiasm of the crowd,” said Erin Metro, associate director for community relations. “We greatly appreciate the Princeton student-athletes who helped to organize and run the always-popular youth sports clinic and the numerous community organizations and campus partners who came to participate in the Family Fun Fest.”

Around the stadium concourse, inflatable stations catered to the crowd. Groups including the Arts Council of Princeton, the municipal Princeton Recreation Department, the Garden Theatre, the University’s Office of Sustainability, Princeton University Employee Resource Groups and the Princeton Area Alumni Association staffed information booths.

Anja Baudeo’s long hair began waving in the air as the 6-year-old from Plainsboro, New Jersey, placed a hand on a static electricity demonstration ball at the Princeton Plasma Physics Laboratory’s table. At a booth for the University’s Cotsen Children’s Library, library staff dressed as wizards did crafts with young children.

Sarah Debraski, whose husband Paul works in the University library system, watched as her daughter Tabitha, 6, played with the wizards.

“We’ve never been to a football game here, so I’m super excited,” Debraski said, adding that her daughter had already tried out fencing, softball and track. “The athletes were so nice. It’s really fun.”

The sports clinic, held at Weaver Track next to Princeton Stadium, featured a number of sports, including baseball, basketball, crew, fencing, lacrosse, softball and track and field, among others. Music filled the air and mingled with the sounds from the various stations around the track.

Nicki Byl, a senior and captain on the open women’s crew team, said the crew station had seen lots of traffic.

“It’s my first time” at Community and Staff Day, she said, adding that she was glad to participate before graduating.

Michael Navarro, of Lincroft, New Jersey, watched as his son Dean and daughter Talia took turns at a lacrosse net, with coaching from members of the women’s lacrosse team.

“We’re here for the day and hope to see a good football game,” he said.

The game began with Princeton running back Dré Nelson returning the opening kickoff 89 yards for a touchdown, on the way to a dominating victory.

After the game, fireworks lit up the night sky.

Sal Caputo, a security operations manager in the University’s Department of Public Safety, joined the staff three months ago, and he was eager to bring his children and niece to campus.

“They were excited about meeting the athletes,” he said. With warm, clear weather and an abundance of activities, he said, “It’s an all-round great day.”

Sign up for UPROAR

Each month, the Office of Community and Regional Affairs publishes a free electronic newsletter with information about events, opportunities and updates that are of interest to the wider Princeton community. To subscribe or to view a sample newsletter, visit www.princeton.edu/community/about/newsletter.
as a teaching tool for Princeton engineering students.

The 129,000-square-foot center, scheduled to be completed by fall 2015, has been designed to meet LEED Gold Silver standards under the Leadership in Energy and Environmental Design rating system developed by the U.S. Green Building Council. Todd Williams Billie Tsien Architects of New York City designed the project.

Arts and Transit Project: By the end of this year, the transit portion of the Arts and Transit Project will be completed. This includes the new, modern NJ TRANSIT Dinky Station, Wawa convenience store and parking. A new road will connect Alexander Street to the north side of the West Garage and to campus, allowing vehicles to enter and exit on the north side of the parking garage in addition to the existing southern entry and exit. A nearby bicycle parking shelter will be finished at the same time. During the 2014-15 academic year, the former north Dinky station building will be expanded and converted into a restaurant. The architect for the station, Wawa, cafe and restaurant is Rick Joy Architects of Tucson, Arizona.

Work also began this winter on the site’s three new apartments and buildings. Excavation, site utilities, footings and foundations, and waterproofing continuing through the summer. Drilling for the geothermal well field, one of the several sustainable elements of the project, began in August. Over the next year, the concrete and steel structures will be constructed. The arts buildings, designed by Steven Holl Architects, will provide performance, rehearsal, teaching and study space for the Lewis Center for the Arts and the Department of Music; they are scheduled to be completed by fall 2017.

Lakeside Graduate Housing: With a capacity for 715 residents, Lakeside Graduate Housing will have 258 townhouses and 74 townhouse units when it is completed. The housing units range from studio apartments to four-bedroom, four-and-a-half bathrooms and furnished units are available. Located off Faculty Road with views of Lake Carnegie, the site also includes amenities such as a fitness center and patio for barbecuing. The site also has a parking garage with more than 400 spaces. Lakeside has been designed to meet LEED Silver standards. The project team includes the architecture firm Studio Ma of Phoenix and Princeton, and developer American Campus Communities of Austin, Texas.

Merwick Stanworth: The Merwick Stanworth complex is a townhouse and apartment community for faculty and staff, with 65 associated affordable housing units for local residents (56 at the site, and 9 units that have been completed on Leigh Avenue and Bayard Lane). The residential section was completed in June, and tenants have begun moving into the 128 units (including 16 community units). In early 2015, American Campus Communities will begin work on the construction of the existing new townhouses, and construction on the 198 units on that site is expected to be finished in 2016. The complex, designed by ToddCullis and Partners of Silver Spring, Maryland, is located along Route 206/Bayard Lane.

Olden House: Completed in the spring, Olden House is an 11,779-square-foot apartment building for visiting scholars. The three-story facility holds a mix of 18 studios and one-bedroom units, and its modern façade is composed of cedar and white painted brick. The building was designed by architect J. Robert Hillier of Princeton.

Lakeside Graduate Housing, a mix of townhouses and apartment buildings (such as the one above), is nearing completion. The community will include amenities such as a fitness center, computer cluster, basketball and volleyball courts, and a parking garage.

### Bedford Field Team Building

The 2,100-square-foot team room building at Bedford Field was completed during fall 2013. The blackened wood-clad building with its orange entrance alcove is the focal point at the southern end of the concourse created between the Class of 1952 Stadium grandstands and the new 1,300-seat grandstands for Bedford Field. The building has two team rooms that will be home to Princeton’s men’s and women’s lacrosse teams, and the women’s field hockey team. The building was designed by Marble Fairbanks Architects of New York City.

### Renovations

**20 Washington:** The 20 Washington Road renovation project commenced this spring with interior demolition in the 200,000-square-foot former Frick Chemistry Laboratory. The building, which was built in 1929 in the Collegiate Gothic style, will be repurposed to centralize economics and international offices across campus. This summer, construction crews removed the east concrete façade, which was a 1984 addition, and the bridge connection to Hoyt Laboratory. They also began working on three new rooftop pavilions. The foundation work for a new south atrium is starting this fall, along with the installation of wall and ceiling framing and mechanical and electrical systems throughout the building. Designed to meet LEED Gold standards, the project is scheduled to open in fall 2016. The architect for the project is Kowahara Payne McKennadBrown of Toronto.

**Firestone Library:** As a product of the phased renovation of Firestone Library, now in its fifth year, students have a new light-filled reading room on the building’s top floor. Also, the University librarian and administrative staff have moved into new offices on the second floor, completing renovation of upper floors of the building. In the coming year, work on the A, B and C Floors will result in graduate study rooms, student carrels, library classrooms, a public reading room and storage for the Department of Rare Books and Special Collections. New book stacks and reader seating will be constructed on all floors throughout the renovation, to be completed in fall 2018. The architects for the project are Frederick Fisher and Partners Architects of Los Angeles and Shepley Bulfinch Richardson and Abbott of Boston.

**Maclean House:** In June 2013, workers began renovations to the 10,000-square-foot structure, which was built in 1736 as the Princeton president’s house. In April, the staff of the Office of Alumni Affairs returned to a restored Maclean House with a refreshed interior color palette, coor- dinated new furnishings and vintage art. In addition, new roofing, brick chimneys, heating, ventilation and air conditioning (HVAC), plumbing and fire alarm/protective systems were installed during the 10-month renovation. The project was designed by Mills + Schnoering Architects of Princeton.

**Eno Hall:** The majority of the basement of Eno Hall has been renovated, resulting in upgraded research laboratories for the Department of Ecology and Evolutionary Biology. The project, which began in June 2013 and was completed this summer, included an upgrade of new controlled environment behavioral study spaces for fish and insects. The project scope also included new mechanical systems related to the research spaces, and other code-related improvements. Work also extended onto the first and second floors, where new HVAC systems, corridor ceilings and lighting, flooring and painting were done. The building also received a new single-person elevator and modifications to its north entrance to make the building more accessible. Nalls Architecture of Narberth, Pennsylvania, designed the project.

**Jadwin Hall:** The phased renovation of Jadwin Hall — which involved replacing HVAC, lighting and windows in the home of the physics department — was completed this spring after nearly five years. The new HVAC systems need to be balanced while the systems are monitored and tuned with each season, so that work is ongoing, as is testing of alternative heating and cooling systems for highly sensitive labs in the high bay area. To match the building’s new aesthetic, the main lobby is being updated. A new mail and information center was designed and constructed earlier this year, and lobby furniture selection is in progress. MGA Partners of Philadel- phia served as the project architect.

Firestone Library has a newly restored two-story reading room on the third floor, as part of the renovation’s goal of improving reader and study spaces.
Romero named Princeton's general counsel

Daniel Day

Romero, a lawyer who has held senior positions in government and the private sector and who has been general counsel of the U.S. Department of Agriculture since 2011, will become general counsel at Princeton University effective July 1.

“I am delighted that Ramona Romero has agreed to become Princeton’s next general counsel,” said Princeton President Christopher L. Eisgruber. “She is a nationally recognized attorney with a spectacular record of achievement, and she brings to this University a remarkable combination of talent and experience, as well as deep personal commitment to the values of higher education, diversity and public service. Ramona will bring superb leadership skills to the Office of General Counsel and will represent Princeton with distinction.”

Nominated by President Barack Obama to her role at the USDA and unanimously confirmed by the U.S. Senate, Romero generates a staff of about 275 people and serves as chief legal advisor to Secretary of Agriculture Tom Vilsack. She also oversees programs that conduct scientific, economic and statistical research, ensure food safety, manage public lands and conserve on private lands, finance rural economic development, promote agricultural trade, safeguard animal and plant health, and provide nutrition assistance in the United States and abroad.

The Board of Trustees has approved the following faculty moves.

Promotions

Two faculty members have been promoted from assistant professor to associate professor, effective July 1.

Associate Professor — Joshua Guild, history and African American studies.

Associate professor — Max Weis, history and Near Eastern studies.

Endowed professorships

Six faculty members have been named to endowed professorships.

• Jeremy Adamson, the Henry Harris Jr. Professor of History, effective July 1.

• Curtis Callan Jr., the Thomas D. Jones Professor of Mathematical Physics, effective July 1.

• Amany Jamal, the Edwards S. Sanford Professor of Politics, effective July 1.

• Lyman Page Jr., the Cyrus Fogg Brackett Professor of Physics, effective Sept. 1.

• Suzanne Staggs, the Henry DeWolf Smyth Professor of Physics, effective Sept. 1.

• John Sterley, the William R. Harman '63 and Mary-Love Harman Professor in Genomics, effective July 1.

Resignations

The following faculty members have submitted their resignations:

• Daphne Brooks, professor of English and African American studies, effective July 1, to accept a position at Yale University.

• Christoforou Flaoudas, the Stephen C. Macalister '63 Professor in Engineering and Applied Science and professor of chemical and biological engineering, effective Feb. 1, 2013, to accept a position at Texas A&M University.

• Angel Harris, associate professor of science and mathematics education, effective July 1, to accept a position at Duke University.

• Scott Lynch, professor of sociology, effective July 1, to accept a position at Duke.

• Petre Petrov, assistant professor in Slavic languages and literatures, effective Sept. 1, to accept a position at the University of Texas-Austin.

• Alexander Sedin, assistant professor in mathematics, effective Sept. 1, to accept a position at the University of Texas-Austin.

• Stefan van Zwam, assistant professor in mathematics, effective Aug. 18, to accept a position at Louisiana State University.
Undergraduate socioeconomic diversity working group issues recommendations

A working group on undergradu ate diversity, chaired by Dean of the College Valerie Smith, has issued a broad set of recommendations designed to improve academic achievement and create a more inclusive and supportive campus experience for all students, regardless of their socioeconomic backgrounds. Initially appointed by former President Shirley M. Tilghman, the working group included five faculty members and six administrators representing various segments of the campus community.

The group found that Princeton University’s admission and financial aid processes have enabled students from across the socioeconomic spectrum to participate fully in the academic and residential life of the University, and that students from all income groups report high levels of satisfaction with their undergraduate experience. Lower-income students participate in programs and access services to the same extent as their higher-income peers and achieve academic results compa rable to other students with similar academic preparation.

At the same time, the group identi fied academic challenges experienced by students, including some of which have a disparate impact on students from lower-income back grounds in STEM fields.

The recommendations of the working group are divided into five categories, as follows.

1. Catalyze academic achievement at the highest levels and reduce curricular obstacles to academic success

   • Create a named honor society program to nurture aspirations of high-achieving lower-income students through faculty mentoring, community building, and expansion of academic and professional opportunities.

   • Expand the McGraw Center for Teaching and Learning to better support student learning and to acknowledge excellence and contributions.

   • Create an endowment for the Advancement of Pure Mathematics.

2. Enhance campus climate for the benefit of all segments of the campus community.

   • Revise existing and create new policies to eliminate curricular and co curricular constraints that prevent lower-income students from fully benefiting from every aspect of campus participation.

   • Increase housing assignments to reflect current student composition.

   • Highlight the existence of courses and programs designed to address issues concerning social and economic inequality.

   • Develop and support enhanced initiatives such as the Council on Science and Technology and the 250th Anniversary Fund to encourage faculty to develop transformative teaching strategies that enhance the learning of students from underrepresented back grounds in STEM fields.

   • Explore the use of technology and other methods to improve retention in STEM fields.

   • Develop and support enhanced STEM-specific offerings in the Freshman Scholars Institute (FSI).

   • Offer summer versions of gateway STEM courses to create more pathways into STEM study.

3. Centralize resources and coordinate campus partners

   • Form a standing committee of academic leaders to consider ing policies that affect the educational and social experiences of lower-income and first-generation students and those necessary, the circumstances of indivi dual students.

   • Create resources that will make transparent available resources for students from all backgrounds, but particularly lower-income and first-generation students (for example, emergency funding, peer mentoring, etc.).

   • Centralize systems for monitoring students’ academic difficulties.

4. Build a more inclusive campus culture and academic climate

   • Train faculty academic advisers and college staff, including residential college counselors, to recognize and manage issues of socioeconomic diversity.

   • Foster the socioeconomic diversity in freshman orientation diversity program.

   • Highlight the existence of courses that address issues concerning social and economic inequality.

   • Incorporate diversity to socioeconomic diversity in residential housing assignments.

   • Create a robust mentoring network of peers, faculty, administrators, and alumni, and leverage this network to raise campus awareness of socioeconomic diversity.

5. Bridge the gap between Princeton and home communities

   • Survey the needs of college access partners to assist the Freshman Scholars and Leadership Enterprise for a Diverse America (LEDA) and devise strategies that enhance the opportunities for students to follow in working and communicating with these organizations.

   • Host and publicize programs during Freshman Family Weekend by streaming events live and making archived videos available after attendance.

   • Ensure that panels during Fami ly Weekend and Princeton Preview are inclusive of students from major metropolitan areas and diverse students and address concerns most pressing to less prosperous parents.

   • Highlight the existence of major metropolitan areas during Families Weekend to involve families who are unable to travel to campus.

   • Revise existing and create new online resources for families of lower income and first-generation students and consider translating these materials into other languages.

“Conversations with the working group made it clear that coordinating and making more visible the main resources we already offer is an impor tant next step, and I look forward to bringing these ideas to the campus community,” Smith said. “But we also need to do everything we can to respond to the need for an increasingly societally diverse campus to present to encourage the best of us, to support the richness of the experience for all who study and work on this campus.”

Questions about the recommendations can be addressed to Smith or to Associate Dean of the College Diane McKay, who staffed the working group.

Bhargava receives Fields Medal of influential mathematicians under 40

Mohgan Kelly

Princeton University mathematician Manjul Bhargava has been awarded the 2014 Fields Medal, one of the most prestigious awards in mathematics, for his profound recognition of his work in the geometry of numbers. The International Mathematical Union (IMU) presents this medal every four years to researchers under the age of 40 based on the influence of their work.

"I am of course very honored to be receiving the Fields Medal," Bhargava said. "Beyond my own excitement, I hope also the students, collabora tors and colleagues who work with me will feel great excitement. Needless to say, this is their prize, too!"

David Gubai, the Hughes-Rogers Pro fessor of Mathematics and department chair, said: "This is really great for both the department and the University. The Fields Medal is one of the highest recognitions in pure math ematics." Gubai added, "Beyond being a great researcher and advisor to gradua te students, Manjul is an extraordinary teacher. He is particularly known for his postgraduate seminar, "The Mathematics of Magic Tricks and Games," wherein students explore the mathematics behind principles in games and magic tricks.

Bhargava has received numerous awards, including the 1996 Infosys Prize; the 2011 Fermat Prize presented by the Toulouse Math ematical Institute; the 2005 SASTRA Ramanujan Prize from the Shanmugha Arts, Science, Technology and Research Academy in India; the AMS Blumenthal Award for the Advancement of Pure Mathematics in 2005; and the Packard Foundation Fellowship in Science and Engineering in 2004. He was elected to the U.S. National Academy of Sciences in 2002 and to the Royal Society in 2003. He also was named one of Popular Science magazine’s "Brilliant 10" in 2006. As a graduate student, Bhargava studied under renowned mathematician Andrew Wiles, the James S. McDon nal Distinguished Service Professor of Mathematics, Emeritus.

Princeton mathematicians have received several of the highest awards in math ematics. In June, two Princeton University professors of computer science who received their Ph.D.s from Princeton in 1992, received the Rolf Nevanlinna Prize, which is awarded by the International Mathematical Union for fundamental contributions to mathematical aspects of information sciences. In addition, Phillip Griffiths, who received his Ph.D. in mathematics from Princeton in 1962 and served as a professor of mathematics from 1968 to 1972, received the Chern Medal Award, for those "whose accomplishments war rant the highest level of recognition for outstanding achievements in the field of mathematics."
Samuel Hunter, professor of art and archaeology, emeritus, at Princeton and a renowned modern and contemporary art scholar, died of natural causes on July 27 in Princeton, New Jersey. He was 92.

Colleagues noted that Hunter was an established historian, professor, curator, museum director and art advisor before coming to Princeton in 1969. At Princeton, he taught a range of courses on modern and contemporary art, and he was a beloved and respected mentor to many. Hunter also was the faculty curator for modern art at Princeton University’s Art Museum.

Early in his career, he became the founding director of the Rose Art Museum at Brandeis. He also served as director of the Jewish Museum in New York City, chief curator and acting director at the Minneapolis Institute of Art, associate curator of painting and sculpture at the Museum of Modern Art in New York, and art critic and associate art editor at The New York Times. He also organized the American sections of the Venice Biennale and the 1956 Sao Paolo Biennial. Hunter curated the Fine Arts Pavilion exhibition for the 1958 World’s Fair in Seattle. His honors and awards include an honorary doctorate from Brandeis, an honorary degree from the British Academy of Fine Arts in Milan, Italy, and a Guggenheim fellowship.

Hunter was the author of over 50 books and more than 130 essays, museum and gallery catalogues, and articles on art history and artists. Hunter was born in Springfield, Massachusetts. After graduating from Williams College in 1943, he served as a naval line officer in the Pacific theater in WWII. He then studied in Italy on a Hubbard Hutchinson Fellowship in art history and criticism.

Hunter is survived by his wife, Maia Hunter; and their daughters Emmy and Alexia from his previous marriage to Edys Merrill, and one granddaughter.

Harold Kuhn, a Princeton mathematician who advanced game theory and brought mathematical approaches to economics, died of congestive heart failure in New York on July 2. He was 88 years old.

Kuhn received his Ph.D. from Princeton in 1950, taught at the University for 37 years and retired in 1993 as professor emeritus of mathematics. He was widely recognized for his scholarship and respected for his thoughtful approach to teaching and for his service to the University.

While a Princeton student, Kuhn began a long collaboration with Professor Albert Tucker and fellow graduate student David Gale exploring and developing the emerging fields of nonlinear optimization and game theory.

In 1951, Kuhn and Tucker described what are known as the Karush-Kuhn-Tucker conditions for nonlinear programming, now a common technique for solving optimization problems. In 1951, the United States Navy Research Logisticstimated an annual “best paper” award in Kuhn’s honor, entitled “paper 2495.”

In 1953, a fascinating paper, “The Hungarian Method for the Assignment Problem,” as the best paper representing the year for which it was published.

Kuhn also had a significant impact on students outside the classroom. In the late 1960s, he wrote a policy document known as “Students and the University” that led to broad changes in the participation of students in the governance of Princeton. Its successor document, “Rights, Rules, Responsibilities,” still defines students’ relationship with the University. He also served on the Board of Trustees of the University, which designed the Council of the Princeton University Community. The council continues today to give the University’s constituencies a voice in the institution’s governance.

Kuhn, who served in the Army from 1942 to 1946 and completed his bachelor’s degree at the California Institute of Technology in 1947, after completing his Ph.D. at Princeton, he was a Fulbright Scholar in Paris. He was an instructor at Princeton serving on the faculty of Bryn Mawr College before returning in 1959 to Princeton, where he would spend the rest of his career.

Kuhn was a Guggenheim fellow and served as president of the Society for Industrial and Applied Mathematics. He was a consultant to government organizations and to several companies, and was senior consultant and member of the board of research firm Mathematica Biosciences.

Kuhn had a deep interest in civil liberties, maintaining a long association with the American Civil Liberties Union. Survivors include his wife Estelle; son Clifford (Katherine Klein) and their children Joshua and Gabriel Klein-Kuhn; son Nicholas (Beth) and their children Michael (Anushree Sengupta), Jeremy, and Emily; son Jonathan (Herman) and their children Lee and Jeffrey.

Memorial donations may be made to the ACLU.

A. Walton Litz, the Holmes Professor of Belles Lettres, Emeritus, and professor of English, emeritus, at Princeton University, died of respiratory failure at the University Medical Center of Princeton at Plainsboro, New Jersey, on June 4. He was 84.

Litz, an expert on modern American and English literature — with a focus on T.S. Eliot, James Joyce, Ezra Pound and Wallace Stevens — joined Princeton’s faculty in 1956 and retired in 1994.

Born in Nashville, Tennessee, on Oct. 31, 1929, Litz earned his bachelor’s degree from Princeton in 1951 and his Ph.D. from the University of Oxford, where he studied as a Rhodes Scholar. He served in the United States Army from 1954 to 1956.

Litz’s publications include “The Art of James Joyce” (1963); “James Joyce” (1966); the 63-volume “Joyce Archive” (1977-80), for which he served as associate director; “Retrospective Voyage: The Poetic Development of Wallace Stevens” (1972); and “Wallace Stevens: The Poetry of Earth” (1981). Colleagues and former students praised Litz as a pioneering scholar, legendary teacher and inspiring mentor.

Litz served in a number of administrative capacities, including chair of the English department from 1974 to 1981; chair of the Council of the Humanities; and director of the Program in Creative Writing.

A member of the editorial board of Princeton University Press for four years, he served as chair in 1972. Litz also was a longtime instructor at the Bread Loaf School of English, the graduate school of English at Middlebury College. He was a member of the American Philosophical Society and served on the executive council of the Modern Language Association and as a trustee of Oxford University Press and the Ezra Pound Literary Trust.

Litz was awarded fellowships by the American Council of Learned Societies, the National Endowment for the Humanities and the Guggenheim Foundation.

He is survived by four children, Katharine, Andrew, Victoria, and Emily; and six grandchildren.

Edward Nelson, a Princeton mathematician and professor emeritus whose contributions to analysis, probability and mathematical logic advanced all of those subjects, died Sept. 10 in Princeton due to complications from lymphoma. He was 82.

Known for his provocative and use of props during lectures, Nelson is remembered as a patient and courteous intellectual who relentlessly pursued answers to his questions — even if those answers defied convention.

Accomplished in many areas of mathematics, Nelson is especially well known for his successful application of probability to quantum field theory, work for which he received the American Mathematical Society’s (AMS) Steele Prize for Seminal Contribution to Research in 1995. The AMS recognized two papers published in 1966 and 1973, respectively, that “showed for the first time how to use the powerful tools of probability theory to attack the hard analytic questions of constructive quantum field theory,” the award citation said.

That probabilistic approach had been attempted before, said Eric Carlen, a professor of mathematics at Rutgers University who studied under Nelson before receiving his Ph.D. from Princeton in 1984. Nelson was told that the sort of approach he was taking had been tried and failed, but he chose to forge ahead and was proven right, Carlen said.

Born in Decatur, Georgia, in 1932, Nelson lived in Italy as a child. He received his Ph.D. in mathematics in 1955 from the University of Chicago. In 1956, he went to the Institute for Advanced Study as a National Science Foundation postdoctoral fellow. Nelson joined Princeton’s faculty in 1959.

Among his honors, Nelson was elected to the American Academy of Arts and Sciences in 1975, the National Academy of Sciences in 1997, and the American Association for the Advancement of Science in 2003.

Nelson is survived by his wife, Sarah Jones Nelson; his son, Douglas Nelson; his daughter, Kathleen Peterson; his brother, John Nelson, of Naples, Florida; three grandchildren; two great-grandchildren; and several nieces and nephews. He was predeceased by two brothers, Claude and James Nelson, and by his first wife, Nancy Wong Nelson. Memorial donations can be sent to the Princeton University Department of Mathematics, c/o Kathleen Applegate, 304 Fine Hall, Washington Rd., Princeton, New Jersey, 08544.

The exhibit “Nova Caesarea: A Cartographic Record of the Garden State, 1666-1888” is on view through Sunday, Jan. 25, 2015, in the Main Gallery of Firestone Library. The exhibit commorates the 350th anniversary of the naming of New Jersey, and introduces viewers to the maps that charted the state’s development from unexplored colonial territory to the first scientifically surveyed state in the United States. For more information, visit www.princeton.edu/rbsc/exhibitions/main.html.