HARVARD IS A PLACE OF DISCOVERY for people leading positive change in the world, be they scientists, scholars, or statesmen; poets, performers, or entrepreneurs. That is our heritage and it must be our future. The world is challenging Harvard and each of us to do more, to be more. The world is evolving, shrinking at an ever-accelerating pace, powered by ideas, the most valuable currency of today and tomorrow. Ideas have always been the fuel for excellence at Harvard. This is our time to encourage, embrace, and lead change. This campaign is our opportunity to ensure for this and every generation that Harvard continues as a premier source of ideas and leadership, advancing teaching, learning, and research, with a unique commitment to truth and excellence. This is our time to ensure Harvard continues as a place of discovery SHAPING THE FUTURE.
Students in the freshman seminar Getting to Know Darwin, taught by Arnold Arboretum Director and Arnold Professor of Organismic and Evolutionary Biology William (Ned) Friedman, watch roller pigeons in flight.
OUR PRIORITIES

FINANCIAL AID

HOUSE RENEWAL & THE STUDENT EXPERIENCE

FACULTY & OUR SCHOLARLY ENTERPRISE

LEADING IN LEARNING

SCHOOL OF ENGINEERING & APPLIED SCIENCES

DEAN’S LEADERSHIP FUND

Right: Students work on a winter break project to invent and construct a balloon-supported structure that could be used for lifting and shelter in the wake of disasters.
LEADING IN LEARNING

Harvard encourages pioneers and explorers. Across our expansive intellectual landscape, the very best scholars do their very best work and lead positive change in the world.

Now, at a time when what you need to know to make a meaningful contribution grows by the second and ideas are driving innovation, Harvard is leading in learning. At this moment of disruption and change, Harvard will shape the future of education.

Harvard is exploring, innovating, experimenting, and leading change in how faculty teach and how students learn. Home to the most dynamic conversations on teaching happening anywhere in higher education today, Harvard is engaging faculty from across its Schools and convening experts from the world over. Harvard is a place not just for pioneers but also for the curious, who have the ability to experiment in ways that are right for them and their students.

Our faculty are coming together like never before to understand how to use classrooms better, how to use technology to open new pathways to knowledge, and how to shape the science of learning to evaluate how our teaching methods impact students. We are working to understand how faculty can use their time with students differently and better. We are building novel tools that engage students and improve learning outcomes. We are unleashing our educational resources for use by learners around the world.

Our timing couldn’t be better. Ideas are the currency in a digital, globalizing, creative economy, moving faster and farther than ever. The international landscape is changing, and growing interest in the value of higher education here at home is provoking spirited debate and evaluation. Harvard faces a unique opportunity for our faculty to make a difference, to answer hard questions, at a time when learning has never been more important.

The Harvard Campaign for Arts and Sciences will propel our progress further and to even greater result. Our students will be the first to benefit, but the impact of our efforts will be felt far beyond our campus.

Harvard’s teaching strategy has three main components: direct investments in faculty activities, programs that support faculty innovation and share best practices, and infrastructure to help us teach in new ways.
The Campaign will augment the activities and research of the Derek Bok Center for Teaching and Learning, HarvardX, and the School of Engineering and Applied Sciences Learning Incubator. Additionally, the Campaign will provide support for our community’s teaching and learning enterprise, including the development of courses and innovative teaching techniques, interdisciplinary collaboration, undergraduate research programs, classroom infrastructure, laboratories, and modern technology.

The Bok Center is the focal point for our teaching innovation and understanding at Harvard. The center will tap into Harvard’s unique resources to help instructors evolve in meeting the needs of today’s students and will leverage the on-campus presence of both undergraduate and graduate students, who are more inventive, tech savvy, and energized than ever before.

The interplay between such motivated students and untiring faculty has catalyzed a reinvention of on-campus learning. Faculty–student collaboration has accelerated the use of new technology, experiential learning programs, novel teaching methods, and rigorous research to shape a world-class education. It is the Bok Center’s role to synthesize these extraordinary changes as they happen and to learn from, and improve upon, the creativity of our stellar faculty and students.

HarvardX is a University-wide initiative focused on innovation and excellence in online and blended models of teaching and learning. With a fundamental commitment to experimentation, HarvardX partners directly with faculty to bring their ideas for online learning from dream to reality, drawing on technologists and learning experts from across the University. The result? Faculty are expanding learning possibilities in Harvard classrooms and expanding access to learning around the world.

Online learning presents an opportunity for new research on teaching and embodies our community’s commitment to making access to education a basic right. The edX platform, founded together with MIT, is one new way in which instructors can now engage with not merely tens or hundreds of students but tens of thousands of students in a single course. And the platform serves as a data-gathering instrument to understand which methods of teaching are most effective by utilizing an unparalleled sample set: the world. We can now know more than ever before about how online learners use web-based content, benefiting on-campus experience as well.

While support is vital to the individuals, research programs, and scholarly materials that make a Harvard education exceptional, equally vital is funding to construct spaces and acquire technologies that create an environment suitable to modern-day learning and training for workplace success.

This campaign is our opportunity to nurture and grow a Harvard where talent, leadership, scholarship, learning, and innovation flourish—now and in a future we can only imagine.
INNOVATION HAPPENS WHEN TALENTED PEOPLE COME TOGETHER TO SHARE IDEAS AND EXPERIMENT AND LEARN FROM EACH OTHER’S EXPERIENCES.

With new resources and support for faculty to apply and test their ideas in the classroom, the Derek Bok Center for Teaching and Learning will enable Harvard to be an unrivaled community of teaching and learning excellence. Under the leadership of its first Richard L. Menschel Faculty Director, Robert Lue PhD ’95, the Bok Center is poised to be the catalyst for and generator of innovative teaching throughout the College. The Campaign will enable the Bok Center to expand to provide programs in:

Media Literacy and Visualization: This program will train faculty and graduate students in the modes of visual literacy that will matter in their lives as scholars and teachers, and will support them in the creation of new digital tools to transform the classroom experience.

Speaking and Student Engagement: This program will train faculty and graduate students in the art of speaking and student engagement. In collaboration with the program on expository writing, the Bok Center will also train undergraduates in speaking and effective oral communication—skills necessary not only for success in the classroom but also for the lives they will lead after graduation.

The Art and Science of Learning: This program will provide support for faculty in the creation and dissemination of new knowledge and research on teaching and learning.
This is all too clear from the classes run by Hisa Kuriyama.

For his wide-ranging, ambitious class in culture and belief, Medicine and the Body in East Asia and Europe, it’s not just Kuriyama who is using multimedia tools to explore how different cultures consider the body. His students are doing it too. In the course, each student produces a project using the filmmaking program iMovie.

“Creating films helps make the material more engaging for both students and scholars,” Kuriyama says. “You communicate simultaneously through a variety of senses.”

Using new technologies to tell compelling stories also helps students master more traditional communication skills. Kuriyama maintains that delivering a multimedia presentation helps students improve their writing. “Students have to condense their thoughts into three to five minutes. It is important that they choose their words wisely.”
When PhD candidate Niroshi Senaratne ’09 and her classmate wanted to study mammology in a new way, they approached evolutionary geneticist Hopi Hoekstra. The award-winning educator worked with them to create their own course, incorporating taxonomy from the Harvard Museum of Natural History. The result? A lab component that brought a new dimension to what they were reading and, on another level, an inspiration for a future path. “I would like to be a professor like Hopi,” says Senaratne.

Hoekstra is not only a well-loved teacher, she is at the forefront of research on the genetics of behavior. She studies how genes control quite complex modes of interactions; her work has been called “mind boggling” and “beautiful” by experts. Her celebrated work with mice in the lab and in the field shows that the tunnels they create are dependent on a mouse’s genes rather than the environment in which those tunnels are created. This finding may lead to further discoveries on how particular genetic components lead to specific activities. There may be rules for behavior encoded in our DNA.

Many professors are noted for their research; others are praised for their teaching. Hoekstra is known for both, and the students she works with have the benefit of a close mentorship with a faculty member who is changing what we know about ourselves, down to our very DNA.
Students gain much from hearing important points straight from an expert practitioner and thinker. But Richard Losick knows that nothing inspires students more or better prepares them for their chosen fields than hands-on learning.

“We were losing a lot of students who are interested in majoring in sciences, because of big lecture courses,” Losick says. That observation made him a leader in developing cutting-edge teaching facilities for science on college campuses. “Where you learn has an impact on how you learn,” he says.

One of these spaces, the Jeremy R. Knowles Undergraduate Teaching Laboratory, can accommodate different science classes, from molecular biology to a new course on the science of cooking. Around 120 students can simultaneously use the 7,000-square-foot laboratory.

Losick believes that labs and classrooms have the potential to work symbiotically. Students should move from learning science to doing science as quickly as possible, in spaces that let them experiment—and get excited. In doing so, he says, they will learn much more.
POETRY IN MOTION

ELISA NEW
POWELL M. CABOT PROFESSOR OF AMERICAN LITERATURE

ELISA NEW CRADLES A BOOK OF POETRY AS SHE GETS READY FOR HER CLOSE-UP.

Inside the First Church in Cambridge, she leads a group of undergraduates in song. The Puritan melody they sing dates back to the 17th century, but the scene is decidedly 21st century: a crew is filming them for New’s online survey course on American poetry via HarvardX.

The effort is part of edX, a partnership between Harvard and MIT to form a nonprofit enterprise dedicated to massive open online courses (MOOCs). Launched in parallel and led by faculty, HarvardX is dedicated to bringing the best of education to learners anywhere in the world.

New is now offering two ambitious courses surveying 400 years of poetry in America and the uses of poetry across changing times. Through new technology, New is keeping alive some of the most foundational of all American texts.

“It feels like all of a sudden having capacity to do all of the things I’ve imagined. I’ve always wanted to have film and music and student performance fully integrated with a course,” says New of designing the HarvardX courses. “We’re exploring how to teach American poetry in the richest way possible.”
INNOVATIVE COURSES AND CLASSES

GENERAL EDUCATION CLASSES

51 to 482

Overall growth from 2008 to 2013 (this includes new courses and those reconceived from the Core Curriculum)

...  

HARVARDX

500,000+

Number of people signed up for HarvardX online classes as of August 2013 (Introduction to Computer Science remains the top enrolled course, with students as young as 10 and as old as 80 registered for the class)

HARVARD FACULTY AND GRADUATE STUDENTS COLLABORATE TO EXPLORE INNOVATIVE WAYS TO REVITALIZE THE CLASSROOM EXPERIENCE, WHETHER THROUGH THE NEW CURRICULUM FOR ALL UNDERGRADUATES THAT REPLACED THE 30-YEAR-OLD CORE REQUIREMENTS, OR THROUGH NEW HARVARDX CLASSES THAT ARE REVOLUTIONIZING HOW WE LEARN.

THE POPULARITY OF GEN ED COURSES LIKE THESE KEEPS GROWING

SCIENCE AND COOKING: FROM HAUTE CUISINE TO SOFT MATTER SCIENCE
The class explores how everyday cooking and haute cuisine can illuminate basic principles in physics and engineering to explain the science behind the recipe.

SEEING IS BELIEVING: A HISTORY OF PHOTOGRAPHY
Modern society is unthinkable without the photograph. Students consider photography from its origins to the digital era, paying particular attention to its role as an engine of belief.

CASE STUDIES IN GLOBAL HEALTH
Students explore case studies on AIDS, tuberculosis, and mental illness to analyze how we might improve the delivery of services designed to lessen the burden of disease, especially among those living in poverty.

ETHICS, BIOTECHNOLOGY, AND THE FUTURE OF HUMAN NATURE
Does science give us the power to alter human nature? If so, how should we exercise this power? Students examine the science and ethics of stem cell research, human cloning, sex selection, genetic engineering, genetic discrimination, and human-animal hybrids.
Guenard typically gave much of himself at Harvard. He got involved with the Harvard Cancer Society, organized fundraising events like Hoops Against Cancer, and worked with his mentor, David Scadden, co-director of the Harvard Stem Cell Institute and Gerald and Darlene Jordan Professor of Medicine, to organize a lecture on stem cell transplantation.

Inspired by Scadden’s talk on the importance of the National Bone Marrow Registry, Guenard helped to organize a drive in conjunction with the Dana-Farber Cancer Institute, where he got his cheek swabbed like everyone else. “I learned I was a match for a local 20-year-old with acute lymphoblastic leukemia,” he says.

To prepare for the stem cell donation, Guenard self-administered daily injections of a growth factor drug. It was a large needle and he fainted the first time. After reassuring his Cabot House roommate that he was fine, Guenard never wavered from the regimen. He never met the recipient—these cases are confidential—but it was an unforgettable experience in putting his education into practice.

Guenard, who was a Gerald Jordan Family Scholar, became a researcher at Massachusetts General Hospital’s Cancer Center and Center for Human Molecular Genetics. He is now an analyst at ClearView Healthcare Partners, a strategy consulting firm that specializes in the life sciences, and hopes to be involved in the transitioning of cell therapies to the market.

FROM RESEARCH TO PRACTICE
CHRIS GUENARD ’12

WHILE AT HARVARD, CHRIS GUENARD DIDN’T JUST STUDY HUMAN DEVELOPMENT AND REGENERATIVE BIOLOGY, HE DONATED HIS OWN STEM CELLS.
They get up close to artifacts uncovered by one of the world’s first archaeologists. And they use visual storytelling, much like the Egyptians themselves, to work to unveil the mysteries of the Pyramids.

This is how students explore the history of the famous Giza Pyramids for the popular Gen Ed class on the archaeological history of Egypt.

The course is led by Peter Der Manuelian, who designed the course to push the boundaries of traditional teaching. Accessing technology that blends 3D glasses and modeling, traditional databases, and geographic information system (GIS) resources, Manuelian and his students virtually wander their way through the sacred grounds of Giza. Students in his class use video to grapple with enigmas of this ancient civilization and its influence on our lives today.

Manuelian and his staff digitized 100 years of research, using real data to reconstruct the Giza necropolis, from its temples to its underground burial chambers. The 3D models are “terrific tools for teaching and also terrific research tools, because you begin to ask questions that were not possible before,” says Manuelian.

It’s one way Harvard is using the virtual world to bring the ancient world close enough to touch.
Harvard students in the January-term workshop Cast in Bronze learn the processes involved in pouring bronze and making casts from a team of experts at New England Sculpture Service.
WE INVITE YOU TO JOIN US in this campaign so that Harvard continues its leadership and influence in the world at a time of dynamic and accelerating change.

THE HARVARD CAMPAIGN FOR ARTS AND SCIENCES