“The better we understand how people learn, the more essential it is that we consistently offer an interactive classroom environment. Stanford provides a superior education because students are empowered to ask questions, to genuinely engage with their professors, and to pursue their individual interests deeply.”

Richard Saller
VERNOR R. & LYSBETH WARREN ANDERSON DEAN
OF THE SCHOOL OF HUMANITIES & SCIENCES
KLEINHEINZ FAMILY PROFESSOR OF EUROPEAN STUDIES

Katharine Hawthorne, ’10, is convinced that if it hadn’t been for Stanford University, she might not have been able to explore all of her passions in depth. Having danced throughout high school, she considered enrolling in a conservatory or dancing professionally. Instead she chose Stanford, where she juggled a major in physics with an equal number of units in dance, plus courses in Chinese language and culture.

Her peak experiences at Stanford included collaborating with a calligrapher in China on a dance mirroring the art of the Chinese alphabet, and choreographing a performance art piece in which dancers explored the laws of gravity—an idea that grew out of her lab work in gravitational physics.

“I don’t know where besides Stanford I would have had such rich experiences separately in physics, Chinese, and dance,” she said. “My professors in all of these areas introduced me to resources within the university and beyond, promoted my performance work, and challenged my assumptions about my art process.”

Although Katharine’s combination of interests is unusual, her ability to study all of them at such a high level is not uncommon at Stanford. In fact, more than half of the undergraduate students in the School of Humanities and Sciences pursue some kind of independent research—a pinnacle of academic achievement. This can be explained not only by the exceptional drive of Stanford students, but also by the resources and guidance they have available to them.

Building on a strong foundation

“Our special niche in the world of undergraduate education is to offer the intimacy of a liberal arts education—specifically, interaction with faculty—within an environment where those faculty are world leaders of research in their fields,” says Richard Saller, the Vernon R. and Lysbeth Warren Anderson Dean of the School of Humanities and Sciences. In other words, students in H&S get the best of both worlds.

The ability to provide this unusual combination of advantages is the result of substantial investments through the years—in particular, the Campaign for Undergraduate Education, which established the Office of the Vice Provost for Undergraduate Education (VPUE) in the 1990s. The VPUE expanded teaching and research opportunities for undergraduates. H&S intends to build on that progress by strengthening students’ experiences within their majors.

“The VPUE offers seminars that connect students to faculty at a time when understanding their academic options is critical,” Dean Saller explains. “H&S provides strength within the major. Given that H&S confers around 75% of all undergraduate degrees and is home to some of the most majors, sustaining and enhancing them is a tremendous opportunity to improve the educational experience.”

Keeping class sizes small

Although H&S strives to provide students with more opportunities to interact with faculty, meeting that goal presents challenges. “It’s hard to get that one-on-one time with
AS ONE ELEMENT OF ITS OVERALL MISSION TO CONNECT STUDENTS WITH FACULTY, THE ECONOMICS DEPARTMENT NOW OFFERS A SERIES OF GUEST LECTURERS FOR REQUIRED INTRODUCTORY COURSES.

professors when everyone is competing for the same resources,” said Rachel Lee, ’11, a human biology major with a minor in East Asian Studies.

“We can’t expand the number of faculty to be proportionate to the number of majors in the most popular disciplines,” says Dean Saller. “There aren’t enough political science or economics experts at Stanford’s level.” Instead, the dean and other key faculty look to visiting professors, assistant professors, and postdoctoral fellows to teach classes.

In addition, Stanford has found creative ways to help students learn. For example, the school has made a commitment to limiting the number of participants in discussion groups in several majors. It has also divided courses with heavy loads into more manageable sections. *Introductory Economics*, which enrolls over 600 students, is now taught over two quarters instead of one as Econ 1A and 1B. The course includes more guest lecturers so all undergraduates have greater access to senior faculty. It also caps discussion sections at 15 students.

“We used to hear from students that Econ 1 was like drinking from a fire hose,” says Timothy Bresnahan, the Landau Professor in Technology and the Economy and the former chair of the economics department. Now, thanks to the smaller sections, as well as a longer period to cover all the material, the course gets higher approval ratings and the quantity and quality of honors theses have increased.

The economics department has been able to achieve these improvements because of a commitment of $1.5 million from the dean’s office and the VPUE. The school seeks to replicate this success in other highly enrolled disciplines where the cost of the cost of smaller sections and other enhancements can be prohibitively high.

In the economics department, there are about 100 undergraduate enrollments for every faculty member, so resource constraints are great. We view our mission as offering the best BA, the best PhD program, and best research faculty in the country. That’s a lot of mission—without a lot of manpower.”

**Timothy Bresnahan**
LANDAU PROFESSOR IN TECHNOLOGY AND THE ECONOMY

**Responding to emerging student interests**

Dean Saller regularly fields requests from students for more courses and learning opportunities, often in response to current world events and emerging geographic areas. Classes on human rights, ethnic violence, and climate change are in demand, as are courses on South Asia and the Islamic world.

Faculty go to great lengths to revise and expand their curricula in response to such requests. For instance, *War and Peace in American Foreign Policy*, a popular course in international relations, used to include lectures on Yugoslavia and Bosnia; now those areas have been replaced by Iraq, Afghanistan, and Israel. Language enrollments are another example of the dynamic nature of students’ interests: Arabic language courses alone have quadrupled in popularity in recent years—an upsurge that requires a significant increase in funding.
Incorporating new technologies into the classroom

In the course of a single generation, technology has revolutionized both the content and the rate of learning. Nationwide, a movement is underway to integrate the latest thinking in math, computer science, and other fields into the study of science. “Thirty years ago it used to take 10 molecular biology graduate students up to a year to sequence a fragment of one chromosome,” says Patricia Seawell, ’70, Stanford’s biology curriculum coordinator. “Now it’s possible to do an entire gene sequence overnight.”

The need to restructure curricula around new discoveries is especially urgent in the science labs, where equipment and teaching methodology become outdated quickly. But even in non-science disciplines, technological improvements are profoundly altering the classroom experience. Thousands of language students complete coursework and assessments in the digital language lab, whose technology, software, and equipment require an annual investment of roughly $250,000. And the psychology department is increasingly dependent on computer simulations and neuroscientific imaging equipment; the latter costs a staggering $1.5 to $2 million per machine. In coming years, the need for investment in technological resources will only continue to grow.

A commitment to delivering the best education possible

In the 1990s, Stanford President Gerhard Casper began overhauling undergraduate education. The results have been overwhelmingly positive, but we must continue to improve. Flexibility is the key to keeping up with changes in pedagogy, student interests, and technology. An undergraduate enrichment fund in H&S would allow the dean to respond to the most pressing needs at any time.

It is our hope that Stanford alumni, parents, and friends will partner with the university to ensure that undergraduate students continue to benefit from the meaningful interactions and experiences that help them realize their full potential as scholars and future leaders.

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DEAN’S UNDERGRADUATE ENRICHMENT FUNDS
Endowed and expendable gifts are welcome. Annual gifts of $10,000 or more are recognized in the Dean’s Circle.

TEACHING FUNDS FOR SCIENCE, LANGUAGE CENTER, HUMAN BIOLOGY
Endowed and expendable gifts are welcome.