

**L&S Futures Project**  
**Interim Report, August 2023**  
**Jennifer Johnson-Hanks**

**Executive Summary**

In the fall of 2022, the UC Berkeley College of Letters & Science launched the L&S Futures project, in order to reinvigorate undergraduate education in the College. Phase 1 of the project focused on determining what capacities L&S undergraduates should improve over the course of their Berkeley education. During the 2022-23 academic year, a faculty Steering Committee and five Working Groups gathered perspectives from faculty, students, alumni, employers, civic leaders, and other higher education institutions, which resulted in coverage around the following nine capacities:

- Writing
- Quantitative skills
- Key domains of knowledge
- Critical thinking
- Collaboration
- Inhabiting others' perspectives
- Spirit of inquiry
- Responsibility
- Integrity

These are not capacities to be learned in a single course, but rather are domains in which students should continue to develop throughout college and beyond. Current students have mixed perspectives about our existing general education requirements, with some appreciation but also frustration that the requirements feel disconnected and arbitrary hindrances to their degree progress. They call on us to reduce the number of general education requirements and make them more meaningful and more universal across the student body. An analysis of the curricula in other colleges of arts & sciences (both free-standing and within universities) revealed that many have faced similar problems with their general education requirements. They have responded by rethinking the first-year experience, expanding writing instruction to more advanced levels, emphasizing access to high-impact practices such as study abroad and internships, and bringing research more effectively into undergraduate education.

During the 2023-24 academic year we will undertake phase 2 of the L&S Futures project: a small group of faculty members will work iteratively through consultation with the College community to develop proposals for improving general education in Letters & Science, building on what we have learned so far.

## Introduction

The purpose of the public research university is to advance human knowledge and educate generations of students from all walks of life. A Letters & Science education in particular inculcates its students in the *artes liberales*, the knowledge practices of the free citizen, and thereby prepares them for lives of contribution beyond themselves. Berkeley stands as one of the iconic public research universities, a national flagship. How we educate our students therefore matters not only for our students but also for the nation. What kind of education do our students need now in order to lead lives of consequence and civic contribution? The L&S Futures project offers a generational opportunity to rethink what and how students in the UC Berkeley College of Letters & Science learn.

Now is an important time to undertake this project. Since our graduation requirements last underwent revision over thirty years ago, much about the world has changed: from technology to geopolitics, population health to economic inequality, climate change to racial reckoning, and computing to gender inclusion. The landscape of public higher education has been transformed by much greater demand—Berkeley received over 120,000 applications for freshman admission this year and now has 65% more undergraduates than thirty years ago—but also much greater scrutiny. Some politicians have sought to limit academic freedom and cut public higher education budgets across the country, and national surveys demonstrate greater public skepticism about the value of higher education. Our students worry about affordability, access, and what the future holds for them. How will we respond?

Part of our response must be a reaffirmation of the value of a broad and deep education that includes exposure to the frontiers of knowledge in the arts, humanities, social sciences, and natural sciences. We will continue to offer students opportunities to delve deeply into an extraordinary range of fundamental topics: the structures of galaxies and poems, cells and societies; the processes of artistic production and evolutionary change, continental drift and cultural revolution. Our college comprises 38 academic departments, over 750 faculty members, and over 26,000 students (graduate and undergraduate combined) across a remarkable range of scholarly disciplines. This massive scope and scale are critical to our mission because the truth is massive and complicated, and so only a capacious range of approaches will begin to make sense of it. Many significant questions require us to think outside of our disciplinary boxes. What is justice? What is life? What is beauty? What is time? What is human? What is evidence? Advancing human knowledge requires us to think more boldly, in a more integrative way that is both broad and deep; this way of thinking is central to who we are and what we offer.

“Broad and deep” is a good start, but it is only a start. L&S seeks to educate students to make significant contributions to a world that is both complex and constantly changing. What capacities—that is, skills, knowledge, and dispositions—will enable them to do that? How can we support them in developing those capacities through our general curriculum? What pedagogical and co-curricular practices will serve our students in building them? The L&S

Futures project takes on these questions mindful of this rare opportunity to redefine what Berkeley stands for as a flagship public university. This interim report summarizes our first year of work and charts the path for year two.

### **The work so far**

The L&S Futures project began in the spring of 2022 when as the Executive Dean of the College of Letters & Science, I began consulting widely with members and friends of the College about how to undertake a substantive review of our undergraduate pedagogical mission. The divisional deans provided pivotal guidance, particularly regarding the scope of the project and which faculty members to invite to the Steering Committee and Working Groups. The L&S Executive Committee offered key insights about process, content, and scope. I also consulted with the L&S Advisory Board; the Berkeley Collegium for Undergraduate Education; the Dean's Undergraduate Advisory Committee; the Chancellor, Provost, and Vice Provost for Undergraduate Education; and UC Berkeley's Board of Visitors. I informed department chairs and CAOs in the College through online town halls and communicated about the initiative with faculty and staff more widely through my end-of-semester message to the College in Spring 2022. Building from the advice offered by these many groups, a small group of senior staff collaborated over the summer of 2022 to establish the initiative's Steering Committee, recruit Working Group chairs, develop work plans, and prepare the logistical infrastructure for the project.

Over the course of the 2022-23 academic year, a Steering Committee and five Working Groups conducted extensive outreach and developed a collaborative, college-wide vision of the skills, knowledge, and dispositions we should seek to instill in our undergraduate students. (Members of the Steering Committee are shown in table 1, and Chairs and Members of the Working Groups are shown in tables 2a-2e.) The Steering Committee met first on September 30 to provide guidance and orientation to the chairs of the Working Groups. The Chancellor, Provost, and Chair of the Berkeley Division of the Academic Senate all attended that meeting and helped frame the conversation about L&S Futures in terms of changes in the higher education landscape nationally. Out of that meeting emerged charges for the Working Groups, which began meeting in October.

The core charge for each group was to identify the capacities—that is, skills, knowledge, and dispositions—that our students should develop during their time at Berkeley. These skills, knowledge, and dispositions are the goals that we will try to achieve through our process of curricular and co-curricular design. Whereas in the past, our L&S general education requirements have accreted over time in partial reaction to administrative changes, we now want to design the graduation requirements in alignment with the pedagogical goals we have for our students. Therefore, the first step was one of building consensus around what those pedagogical goals are.

Each Working Group was chaired or co-chaired by one or two members of the Steering Committee and comprised between eight and sixteen members, a combination of Senate faculty, lecturers, staff, students, and friends of the College. Each focused on gathering the perspectives and insights from a specific constituency:

- Faculty
- Students
- Alumni
- Prospective Employers and Civic Leaders
- Peer Institutions

The memberships of the Working Groups were mixed across roles: students served on most of the Working Groups, not just the one focused on student perspectives; Senate faculty, lecturers, and staff served on all five. From October to February, the groups worked to establish their research methods and began collecting data.

The first task for each group was to specify exactly whose perspectives they would elicit. The Faculty-focused group decided to seek perspectives from all instructional faculty in the College, including senate faculty, lecturers, and adjuncts. The Student-focused group worked to collect ideas from current L&S undergraduates through survey data and town halls. The Alumni-focused group invited feedback from alums for whom we had email addresses and who had graduated from the College since 2000. The group focused on Prospective Employers and Civic Leaders relied primarily on publicly available national data for large-scale employers, alongside reports from the National Task Force on Civic Learning and Democratic Engagement. Finally, the group focused on Peer Institutions explored curricular and co-curricular patterns and trends across a set of peer publics and privates, as well as some liberal arts colleges and institutions dedicated to the education of historically marginalized people.

On February 24, the Steering Committee reconvened to hear preliminary work from the working groups and provide feedback on their process. Each working group used a different mix of methods to gather information, aligned with the specific characteristics of the groups. For example, for Alumni, a large-scale survey was the only viable approach: they sent out 20,000 email surveys and received back 1,448 responses; whereas for Faculty, a smaller-scale survey (with about 317 complete responses) was combined with in-person visits to faculty meetings in 17 of the 38 departments in the College, as well as in-person engagement with the chairs and directors in the divisions of Arts & Humanities, Biological Sciences, Mathematical & Physical Sciences, and Social Sciences. At the February Steering Committee meeting, Working Group chairs got cheers for their excellent work, suggestions, additional questions, and some modest redirection that helped them complete their work.

Between February and May, the Working Groups completed their data collection and wrote up reports summarizing what they had learned about the capacities seen as most central for our students' futures. These were made available on the L&S Futures website

(<https://ls.berkeley.edu/about/ls-futures>) in early May. The Working Group reports, Steering Committee conversations, and conversations with other friends of the College form the basis for this integrative summary. We are eager for reactions and feedback to this report so that they can be integrated into the next phase of the project, which can be submitted by emailing me ([johnsonhanks@berkeley.edu](mailto:johnsonhanks@berkeley.edu)), or through the L&S Futures website.

## Results

Entering this process, we were excited but fearful. We all believe in a broad and deep Letters & Science education, but would there be any consensus about what it should comprise or why it matters? In particular, would different categories of people invested in L&S—faculty, students, alums, prospective employers, etc.—agree about what our pedagogical aims should be? To our delight (and relief), the answer is yes. While each Working Group focused on a distinctive community or perspective, and each used different methods of data collection, the convergence between them is remarkable: people in very different roles see a similar set of capacities as essential orienting goals for general education in the College of Letters & Science. Sometimes the lexicon differs—for example, Prospective employers use the word “professionalism” for a set of skills that the Working Group on Faculty classifies as one element of “learning how to learn” (and that is categorized in this document as “Responsibility”)—but the content of the ideas is very similar, and constitutes a robust rationale for moving forward with a new process of design. This section will first summarize the consensus results from the Faculty, Alumni, and Prospective Employers and Civic Leaders groups. Then it will turn to the key findings from the group on Students, since they approached the question in a somewhat different way. Finally, this section will turn to the results from the Peer Institutions group, because it represents a partial bridge between this year of exploration and next year’s process of design.

The Faculty, Alumni, and Prospective Employer groups all organized their data collection explicitly around capacities: skills, knowledge, and dispositions that we hope to instill in our students. The phrasing of “skills, knowledge, and dispositions” was important because it helped people to think more capaciously about the mission of a liberal arts education, rather than focusing only on domains of knowledge. However, the lines between skills, knowledge, and dispositions are often blurry, and what one person calls a skill another might consider to be a disposition or kind of knowledge. In what follows I therefore instead classify the capacities that were identified according to how easily they could be translated into graduation requirements, from the most concrete competencies to the broadest dispositions.

### *Concrete Competencies*

Faculty, alumni, and potential employers and civic leaders agreed that students need three kinds of concrete competence that more easily correspond to measurable learning objectives in specific courses. While meriting our deep reflection about how best to teach them, and about which

specific elements should be included, these critical competencies should translate into graduation requirements in a more straightforward manner:

1. **Writing:** The ability to communicate clearly via well-organized writing or other forms of communication (e.g., speaking) in a variety of genres (e.g., white papers, emails, policy statements, laboratory reports).
2. **Quantitative Skills:** Facility with mathematical operations and models, as well as the analysis and visual representation of quantitative data.
3. **Key domains of knowledge:** The acquisition of knowledge that is important for life as a citizen today, for example, general world history, core science of climate change, principles of democratic governance, literature, and evolution.

### *Broader Competencies*

These next set of competencies are more abstract and multifaceted than the first group and may emerge over a longer sequence of courses.

4. **Critical Thinking:** understanding the structure of an argument, identify and assess the evidence used in support of its conclusion, and identify and critically assess its presuppositions. The tools of critical thinking should be brought to bear on one's own work as well as the work of others.
5. **Inhabiting others' perspectives.** Seeing the world through perspectives of people unlike you, including those inhabiting different times, places, and kinds of communities. This could include learning new languages or study abroad; it also includes sincere engagement across political or other forms of difference. It entails both understanding and empathy.
6. **Collaborating:** Working effectively as part of a team in pursuit of a common purpose.

### *General Orientations*

In addition to competencies, three orientations, dispositions, or ways of being in the world also emerged as critically important to faculty, alumni, and prospective employers, although they are less tightly bound to the content of an undergraduate degree. These orientations will be difficult to translate into graduation requirements, and people can and do readily acquire these orientations without a liberal arts education. These orientations may more easily be taught by example and shared expectation than by explicit instruction.

7. **Responsibility:** Taking charge of your own learning and work (e.g., coming on time and prepared, planning ahead, prioritizing work), persisting through challenges, being accountable.

**8. Spirit of inquiry:** Being curious and creative, figuring out how to learn outside the comfort zone of what you already know, being willing to be wrong, and learn from your mistakes.

**9. Integrity:** Reflecting on your own beliefs about right and wrong and growing in your commitment to doing what is right. Our campus Honor Code could serve as a framework for beginning the conversation.

Taken together, the nine capacities overlap and intersect, making the whole more than the sum of its parts. For example, substantive knowledge of important subject matter is not only valuable in its own right, but is also the substance through which we teach many of the other competencies; inhabiting others' perspectives requires a spirit of inquiry; and writing is the most common means of doing and expressing the work of critical thinking. These interrelationships matter both for what students learn and how they learn; the fact the capacities we hope to inculcate in our students form a meaningful and interrelated whole can help students understand why we have general education requirements and what purpose they serve.

It is also important to note that none of these are capacities that any of us can fully acquire: we are never done learning to write, reason, or act with integrity. This suggests we should frame our requirements as domains for improvement, rather than levels to be attained. If every student were to get better in each of these domains over the course of their undergraduate education, that would set them up well for continuing to learn over the course of their lives.

### *Students' views*

The Working Group on Students focused on eliciting perspectives from current students on the opportunities and challenges of the present set of College requirements. In general, student respondents offered positive assessments of their L&S education, while views on the current general education requirements were mixed. On the one hand, more than half of students responded in the survey that breadth courses had exposed them to new ideas, taught them skills that they would not have learned in their major, and gave them context for understanding the world around them. On the other hand, most of the other potential advantages of breadth requirements were endorsed by fewer students, and—consistent with the anecdotal reports from many College advisors—the Working Group on Students found that some of our students find little meaning in our current breadth requirements, seeing them as rocks in the road, or boxes to be ticked. The assortment of courses that fulfill each of the breadths baffles some students—it seems arbitrary, and therefore meaningless. From the perspective of our current students, L&S general education requirements clearly have room for improvement, both in their content and in how we narrate them. The Working Group on Students summarizes proposals to reduce the number of requirements and make them more meaningful, both by eliminating testing-out and by adding more challenging upper-division pathways to complete the requirements.

A second major point from the Working Group on Students concerns the challenges faced by transfer students due to the imperfect alignment between our existing L&S College requirements and the systemwide transfer protocol CALGETC. This point becomes particularly important as we think about the arc of a Berkeley L&S education. First-year students need different kinds of scaffolding than do more advanced students, but transfer students may have a different mix of needs than either first-year students or upper-division students who came to Berkeley as first-years, and therefore require our specific attention.

### *Insights from Other Arts & Sciences Colleges*

The report from the Working Group on Peer Institutions serves as a partial bridge from the exploration and discovery of this year into the design phase that will begin in the fall of 2023, asking how other colleges of arts and sciences—both small liberal arts colleges and L&S-like colleges at major research universities— theorize and implement their general education requirements.

The working group found that a number of colleges have undertaken general education reform over the last decade, addressing concerns that echo those of our own students: the breadth requirements seem arbitrary, incoherent, and pointless; there are so many options to fulfill the requirements that students do not know what to choose; students treat the courses as hurdles to be cleared by memorizing for the exam and moving on. That said, our peers have not abandoned breadth requirements or core curricula. Many have developed clearer explanations of the requirements' purpose; streamlined how requirements can be fulfilled; built scaffolding to support students as they move through the requirements; or changed their content in clearer alignment with contemporary pedagogical goals. Examples of changes include: Western civilization requirements have been replaced by world cultures courses; several schools are considering adding climate change requirements or replacing existing science requirements with those oriented to climate; and statistics or data literacy requirements are replacing, or being added to, previous model-centered mathematics requirements.

With students questioning the benefit of general education requirements, a number of colleges have sought to more clearly articulate their mission. The working group points to three ways that other colleges are explaining the general education requirements to students: as Scientific literacy + Human Societies and Cultures, as “Tools of Inquiry”, and as preparation for a Life of Service. Whatever else we may change, we at least need to do a better job of telling the story of what general education requirements are for and how they serve students' life ambitions and ability to make contributions beyond themselves. We could certainly both follow the students' call for fewer and more meaningful breadth requirements without the option of testing out, while simultaneously articulating their aims more clearly.



1. **Giving sustained attention to the first-year experience**, particularly including “how to do college” courses, more attention to writing, thematically linked courses, small seminars, and an introduction to epistemological infrastructure.
2. **Expanding writing instruction** to more advanced levels, often discipline-specific and in a wider range of genres.
3. **Emphasizing access to high-impact practices** such as study abroad, internships, and especially engagement in research.

### Next steps

We will seek to share this interim report widely, and welcome comments, criticisms, advice, or other kinds of feedback, both electronically and through town halls. A more polished version of this report, responding to that feedback, will then go to the L&S Executive Committee for review and hopefully endorsement this fall. Concomitantly, a small design committee will begin convening in late August or early September. They will work iteratively—with phases of cloistered work and phases of broad engagement across the campus—as long as it takes to develop a strong set of recommendations for how to improve the general education curriculum and co-curricular work of the College to best ensure that our students improve in the capacities identified this year as most essential for graduates of Berkeley L&S. The steps beyond that, and who will be responsible for implementing the recommendations, will depend on what they comprise.

Specifically, the L&S Futures Design Committee is charged with:

1. Making specific, concrete recommendations for the L&S general education requirements going forward. These recommendations should build on this summary document and the reports of the L&S Futures Working Groups, and it should also take into account recent national reports on higher education such as the 2018 National Academy of Sciences Report and the 2021 Boyer Report. The recommended requirements should anchor a general education that is:
  - a. **Mission-Centered:** Every College requirement should have a clear connection to our mission of educating a diverse population of students for lives of contribution and consequence, and be oriented to instilling the nine capacities that were identified this year.
  - b. **Narrative:** The 120 units of a degree are not a monolithic block. Our curriculum should have a trajectory—a story with a beginning, middle, and end, that students can understand and that builds progressively over their time at Berkeley. This narrative should make sense both for students who come as first-years and those who come as transfers.

c. Simple: Our current general education requirements are very complicated. This complexity results in students not knowing where they are in relation to degree completion, a lot of administrative time and cost, a high demand on faculty to serve on CAPS, and a high number of exception requests. A future design should be significantly less complex and contain fewer elements, enabling all of us—students and faculty alike—to know what our undergraduate requirements are and why.

2. Proposing curricular and co-curricular infrastructure that could enhance general education in the College of Letters & Science. This could include changes to advising, the mechanisms of course selection, or the distribution of course offerings; strengthening resources for community engagement programming or campus research apprenticeships; different kinds of collaboration with the Career Center, internships, alumni mentoring, etc. For example, are there ways that we could structure the first-year curriculum that would better enable students to find their way, regardless of any potential changes to graduation requirements? Are there ways that we could build connections between alumni and students to supplement advising? Are there ways to better build evidence-based, high-impact pedagogical practices into a Letters & Science education?

This is a once-in-a-generation opportunity to reimagine liberal arts education at the nation's most visible public research university. What does Berkeley stand for? Who are we? How can we best help our students acquire the capacities that will enable them to make contributions beyond themselves? We have made a good start so far. Let us continue to think boldly as we go forward.

#### Table 1: Steering Committee Members

Chair: Jennifer Johnson-Hanks, Executive Dean, Letters & Science

Michael Botchan, Dean, Biological Sciences Division

Catherine Choy, Ethnic Studies

Marla Feller, Molecular and Cell Biology

Ori Gaynor, Physics

Sara Guyer, Dean, Arts & Humanities Division

Sue Harbour, Career Center

Steven Kahn, Dean, Mathematical & Physical Sciences

Jonah Levy, Political Science

Michael Nachman, Integrative Biology

David Nadler, Mathematics

Kate O'Neill, Associate Dean, Rausser College of Natural Resources

Raka Ray, Dean, Social Sciences

Janelle Scott, African American Studies

Mary Ann Smart, Chair of the Academic Senate, Professor of Music

Shannon Steen, Theater, Dance & Performance Studies

Jessica Stevenson Stewart, Office of Undergraduate Research & Scholarships

Jay Wallace, Philosophy

James Weichert, ASUC AAVP, Senior, Computer Science & Data Science

Linda Wilbrecht, Psychology

## Table 2: Working Groups

### 2a: Faculty Working Group

Janet Broughton, Co-Chair, Professor Emerita, Philosophy

Ori Ganor, Co-Chair, Associate Professor, Physics

Katelyn Adame, undergraduate student

Jan Carmelo Bautista, Counselor, Educational Opportunity Program

Fred M Dewitt, Lecturer, Art Practice

Kathleen Donegan, Professor, English

Mariane Ferme, Professor, Anthropology

Aglaya Glebova, Associate Professor, History of Art

Tim Hampton, Professor, Comparative Literature and French

Belinda Kremer, Lecturer, College Writing Programs

Smriti Mehta, PhD student, Psychology

Alex Paulin, Teaching Professor, Mathematics

Travis Petzoldt, Commanding Officer, campus ROTC

Amm Quamruzzaman, Lecturer, Interdisciplinary Studies Field Major

Chris Shannon, Professor, Economics and Mathematics

Kimberly Vinall, Executive Director, Berkeley Language Center

2b: Student Working Group

Janelle Scott, Professor and Associate Dean, Co-Chair

James Weichert, ASUC Vice President, Co-Chair

Annmarie Delgado

Rachel Marias Dezendorf

Kendell Dimson

Keith Feldman

Kim Freeman

Eunice Kwon

Emily Rabiner

Achilles Speliotopoulos

Lisa Tsuchitani

Rungsri Upradit

2c: Peer Institutions Working Group

Shannon Steen, Chair, faculty in TDPS

Donna Jones (English)

Daniela Cammack (Political Science)

John Levine (lecturer, College Writing Program)

Laura Spautz (staff, American Studies)

Dan Melia (emeritus, Rhetoric)

Lawrence Cohen (Anthropology)

Henry Ramos (alumnus, Political Economy and member, L&S Advisory Board)

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Lawrence Cohen (Anthropology)

Henry Ramos (alumnus, Political Economy and member, L&S Advisory Board)

*2d: Alumni Working Group*

Marla Feller, Co-Chair, Professor of MCB

Caitlin LeFleur, Co-Chair, L&S Alumni Relations

Alex Coughlin, Statistics Director of Communications & External Relations

Julia Schaletzky, CEND Executive Director

Maria Hjelm, External Relations

Mark Goble, Professor of English

Frances Bright, Anthropology Undergraduate Student Affairs Officer

*2e: Potential Employers & Civic Leaders Working Group*

Jessica Stevenson Stewart, Chair, OURS Director

Sue Harbour, Career Center Executive Director

Mark Shaw, Music Department Manager

Howard Isaacson, Academic Researcher in Astronomy

Victoria Robinson, American Cultures Program Director

Shana Love, Career Center Staff

Sandra Bass, Public Service Center Executive Director

Christine Trost, Institute of Governmental Studies Executive Director

Terri Bimes, Professor of Political Science

Mary Crabb, OURS Staff

