

L&S Futures: Phase II Final Recommendation Report

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Drivers and Recommendations

Renaming requirement categories

Primary Drivers:

- Student confusion and frustration around structure, rationale, and benefits of requirements

Recommendation:

- Provide more broadly disseminated explanations of requirements, including their benefits, and rename requirement categories
 - Current "skills" category → "L&S Foundations"
 - Current "breadths" category → "L&S Horizons"

First-year required course "Berkeley: Community and Democracy"

Primary Drivers:

- Need to help students understand the concept, structure, and value of a liberal arts education
- Need to help students understand the relationship between the liberal arts project and the practices of community and democracy
- Need to introduce students to campus principles of community, of intellectual and scholarly integrity
- Desire to enable students to discuss challenging and complicated topics about which there might be conflict, to give them skills to talk with others within and across differences
- Aspiration to give L&S students a unifying, in-common Berkeley experience

Recommendation:

- 2 unit course that all L&S students take in their first year, titled "Berkeley: Community and Democracy"
 - One hour of "lecture" (primarily pre-recorded material), two hours of discussion section
 - discussion sections taught as overload by faculty with stipends, SCH to go to host departments

Writing

Primary Drivers:

- Writing identified as high-level skill priority for student development in Phase 1

- Significant difficulty in discerning – in a comprehensive sense – the content, goals, practices, and quality control mechanisms of how writing is taught campus-wide
- Challenges to writing instruction models brought by the advent of generative AI

Recommendations:

- Comprehensive review of writing instruction and instructor training across campus, organized in collaboration between all campus stakeholders, particularly with those departments or units that offer R&C and other writing-enriched courses, and the Dean of the Arts and Humanities division

Quantitative Reasoning

Primary Drivers:

- Rapidly changing data environment that will affect all students regardless of career or life path
- Rapidly evolving methods for the manipulation and misrepresentation of data
- Need for public understanding of how data models are generated and used to predict patterns, of implications for how data are used to propose solutions to large-scale problems, and of inherent uncertainties in data sets

Recommendation:

- Augment current requirement to allow more courses that focus on predictive reasoning
 - Recommend that L&S Executive Committee take up project of defining and formalizing criteria for the QR requirement in partnership with the Dean of Math and Physical Sciences, find potential courses, and vet them for inclusion
 - Recommend pilot expansion of Saul Perlmutter's "Sense, Science, and Sensibility" course with discussion sections that contain calculation work (to meet QR criteria)

Language Study

Primary Drivers:

- Recognition of the role of language study in supporting several of the key competencies of the interim report (especially inhabiting perspectives of others and writing)
- Recognition of the role of language study in the development of "Global Perspectives," now categorized as a foundational area of study for students

Recommendations:

- Retain current structure of the foreign language requirement of the college, including for transfer students
- Support the Executive Committee's decision to include intermediate language classes as a way to fulfill the "Global Perspectives" requirement (currently called "International Studies" – see more in next section)

Breadths

Primary Drivers:

- Need to adjust total number of breadth requirements in light of added first-year course
- Student confusion and frustration around the breadth areas
- Faculty frustration with current "International Studies" breadth definition
- Need to protect current SCH distribution patterns (avoid harming divisions, departments)

Recommendation:

- "Breadths" category renamed "L&S Horizons"
- "International Studies" redefined and renamed "Global Perspectives"
 - Moved to category of requirements now called "L&S Foundations" (old name: "Essential Skills")
- Requirements in this area reduced from 7 to 5
 - Current breadth areas shifted to broader categories
 - 2 Arts and Humanities
 - 1 Social Science
 - 1 Biological Sciences
 - 1 Physical Science
 - Any courses with breadth designation from UGIS programs or outside of L&S should be allowed to keep this, transferred to the category that makes most sense.
 - Courses that could cross categories can be listed in up to 2 areas; students must choose which category they use it for (i.e. they can't double-count)

Transfer Students

Primary Drivers:

- Provide the same educational experience for both transfer and four-year students
- Avoid making it more difficult for transfer students to complete their degrees within four-semester ceiling

Recommendations:

- Everyone, including transfers, must take new first-year course
- Support decision by Executive Committee regarding system-wide changes to admissions requirements and current degree requirements

Overview

This report contains the final recommendations made by the Design Committee for Phase II of the L&S Futures project. This project was launched in Fall 2022 by Executive Dean Jennifer Johnson-Hanks in order to evaluate and, if necessary, restructure the general education requirements of the College of Letters and Science. The current requirements are over thirty years old — they were implemented in the early 1990s, and are the result of a deliberative process that began in the 1980s. As Dean Johnson-Hanks put it in her interim executive report for 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?

Given these contexts, it is time to ask whether the current requirements still reflect the needs of our students and given the challenges and opportunities of the world they face. UC Berkeley and the College of Letters and Science are not alone in considering this question. In the past five years, several peer institutions have undertaken a searching reflection of their requirements — Johns Hopkins, the University of North Carolina, the University of Virginia, and UCLA have all either begun similar studies, are in the process of implementing changes, or have already inaugurated their first undergraduate cohorts under reimagined requirement structures.

The process of answering this question must also reaffirm the tremendous range and vitality of programs housed inside the College of Letters and Science. As Dean Johnson-Hanks goes on to note in her interim report:

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.

To undertake this project in L&S, Johnson-Hanks created a two-phase process: Phase I comprised working groups that asked a variety of stakeholders (faculty, current students, alumni, and local civic leaders and employers) to identify the core skills, dispositions, and forms of knowledge in which undergraduate students should be trained, and examined the requirement configurations at a variety of colleges and universities across the US. Based on the reports of these working groups, Johnson-Hanks developed an interim executive report in which she identified nine “competencies” that the general education requirements should develop: writing, quantitative skills, critical thinking, key domains of knowledge, inhabiting others’ perspectives, collaboration, responsibility, spirit of inquiry, and integrity.¹

Phase II involved the creation of a design committee composed of faculty from across the four divisions of the College of Letters and Science, with roughly equal numbers from each “domain” (sciences, social sciences, arts and humanities). In order to come to recommendations, the committee read the Phase I reports, considered works on the role and mission of the university, read about approaches to general education, explored models recently adopted at other

¹ “L&S Futures Interim Executive Report,” August 2023.

universities, and consulted with staff groups and faculty committees in L&S and beyond.²

In addition to the primary design committee, a second committee was formed to focus solely on college writing requirements. This committee was composed of faculty with long-standing research and experience in writing pedagogy. They read past reports on undergraduate writing instruction generated over the past 35 years and considered models from other universities (including from other UC campuses and beyond).³

In concert, the two committees responded to the “nine capacities” articulated in the Interim Report from Dean Johnson-Hanks. Additionally, they devoted considerable attention to identifying the factors that should play a role in their recommendations, drawing on ideas raised in the Phase 1 reports and in a variety of writings about undergraduate education:

- The strongly articulated desire among faculty in Phase 1 for better training in writing and critical thinking
- The increasingly common practice in US higher education of a first-year course that teaches students the habits and institutional navigation skills often referred to as the “hidden curriculum”
- The lack of information for students regarding the rationale, structure, and value of a liberal arts education
- Student concerns over what they experience as the disjointed and arbitrary designations of the breadth areas
- Frustrations expressed by faculty and students regarding the parameters and availability of courses for the International Studies breadth

² The Phase 1 reports can be found in the lower third of the project website <https://ls.berkeley.edu/about/ls-futures>. Consulted works included Ronald J. Daniels, *What Universities Owe Democracy* (Baltimore: John Hopkins University Press, 2021), the University of California Humanities Research Institute report “Liberal Arts in a Future Tense,” (<https://uchri.org/liberalarts/#:~:text=Liberal%20Arts%20in%20a%20Future%20Tense%20is%20a%20call%20to.by%20a%20UCHRI%20Working%20Group.>), and the National Academy of Sciences 2018 report “The Integration of the Humanities and Arts with Sciences, Engineering, and Medicine in Higher Education: Branches from the Same Tree” (<https://nap.nationalacademies.org/catalog/24988/the-integration-of-the-humanities-and-arts-with-sciences-engineering-and-medicine-in-higher-education>), Final Report of the Languages, Language-based Disciplines, and Global Citizenship Task Force (June 2023), and the Arts and Humanities for the Future Task Force (December 2020).

³ Reports on campus writing consulted by this committee included “Proposed Revision of the Reading and Composition Requirement in the College of Letters and Science” (1989), “Reading and Comprehension Curricular Goals and Guidelines” (accepted by the L&S Executive Committee in April 2011), and “Report on R&C Pedagogy” from May 2019.

- Excessive time demands on administrators and advisers working with students to ensure that they meet their L&S graduation requirements

In considering various proposals, both committees tried to ensure recommendations that are intellectually and pedagogically meaningful, manageable for students, faculty, administrators, advisers, and departments (in other words, that avoid harming units or people), and that build on Berkeley's identity as a university that pushes the boundaries of how people think and brings together students from a broad diversity of backgrounds and perspectives.

The LSF design committee began its deliberations by trying to determine the long-term mission and goals of curricular requirements beyond the major. They reframed the goals of these requirements by noting they do not merely offer enrichment or luxury "extras" but provide necessary mechanisms that:

- Help students develop a critical sense of self in relation to the social, natural, and physical worlds
- Provide the mechanisms for students to understand and interact with the world around them in ethical ways, grounded in knowledge and information
- Build the habits of mind that will enable students to grapple with the new ideas and contexts they will encounter over the course of their lifetime
- Challenge students to think in ways outside of their familiar assumptions or schema and to engage other points of view with respect and empathy
- Offset the increasingly sophisticated misinformation campaigns by which they are increasingly bombarded
- Equip students with the tools to better comprehend their world as composed of interlocking systems

With these necessities in mind, the committee views a foundational grounding in a variety of disciplines from across the humanities, sciences, and social sciences as critically important preparation for their immersion in an increasingly complex world.

While the committee considered the value of curricular requirements beyond the major largely in relation to extra-professional capacities (in other words, those capacities critical for their aid in helping students prepare for the world alongside or beyond their professional and career needs), we would be remiss if we neglected to note that the forms of analysis and habits of mind inculcated across all three domains of L&S — the humanities, natural sciences, and social sciences — have become ever more crucial for the increasingly complex work demands of

this century as well. This past spring, *The New York Times* ran an op-ed piece by Aneesh Raman (workforce expert for LinkedIn) and Maria Flynn (President of Jobs for the Future) in which they note that in the wake of the emergence of generative AI platforms:

Technical and data skills that have been highly sought after for decades appear to be among the most exposed to advances in artificial intelligence. But other skills, particularly the people skills that we have long undervalued as “soft,” will very likely remain the most durable. . . . Our abilities to effectively communicate, develop empathy and think critically have allowed humans to collaborate, innovate and adapt for millennia [sic] . . . yet they have never been properly valued in our economy or prioritized in our education and training. That needs to change.⁴

Moreover, the cross-training aspect of exposure to these varied domains, wherein students experience differing models of thinking, is critical for its ability to cultivate varied ways of looking at a common set of problems or questions. The UC Humanities Research Institute report “Liberal Arts in a Future Tense” put this best in its assessment that:

A liberal arts way of knowing entails a relational approach to problems that appear to be isolated in particular areas of expertise. And it entails a practice that draws generously from varied fields of expertise cutting across disciplinary formations. Beyond the acquisition of ‘soft skills’ like problem solving or empathizing with the pain of others, a rigorous, innovative, and purposeful training in the liberal arts equips people with the tools to better comprehend their world as composed of interlocking *systems*.⁵

To generate this relational mode of thinking, the committee has made some specific recommendations at the end of this report relative to advising and requirement navigation in addition to recommendations about the requirements themselves.

⁴ Aneesh Raman and Maria Flynn, “When Your Technical Skills Are Eclipsed, Your Humanity Will Matter More Than Ever.” *New York Times*, 14 February 2024

<https://www.nytimes.com/2024/02/14/opinion/ai-economy-jobs-colleges.html>

⁵ UC Humanities Research Institute, “Liberal Arts in a Future Tense.”

<https://uchri.org/liberalarts/#:~:text=Liberal%20Arts%20in%20a%20Future%20Tense%20is%20a%20call%20to,by%20a%20UCHRI%20Working%20Group.>

Finally, the committee recognizes that the faculty of L&S regularly provide outstanding courses that fulfill the current requirements, ones that have a profound impact on the ways students understand the world and their relationship to it. Although there may be reservations about the structures of the requirements, the quality of instruction across the College remains very high. In that vein, it is important to remain mindful — especially in light of student complaints about requirements — of the fact that students sometimes only recognize the value of these courses *after* they have taken them. This tendency is apparent in the disparity in the Phase 1 findings between the sentiment of frustration that characterizes current student responses to the requirements and the fact that alumni very much value them in retrospect. It is also exhibited in end-of-term comments students sometimes make to faculty that they only took their course as a requirement and so anticipated disliking it, but upon actual participation found it to be highly interesting and enjoyable. In other words, the recommendations of this report are emphatically not driven by quality concerns over courses that satisfy general education requirements but over requirement configuration and structure, and the desire to communicate their value to students more effectively.

I. Recommendation Summary

In March 2024, the design committee created an initial draft of recommendations, and then held a series of robust discussions with the Deans and Chairs of all four divisions of the College, members of the Executive Committee and the Committee for Courses of Instruction and Academic Programs (CAP), L&S Advisors, and members of the Undergraduate Council. The recommendations below respond to the concerns and possibilities raised in these conversations.

To refresh the memories of readers of this report, the current configuration of general education requirements in the College of Letters and Science is as follows:

Essential Skills requirements (students may “test out” via AP or IB coursework or similar):

- Reading and Composition (R&C) — two semesters
- Quantitative Reasoning – one semester
- Foreign Language – equivalent of two college-level semesters

Seven Course Breadth (students must take one course in each area, and may not “place out” via high school coursework or test scores – definitions for each of these breadth areas are available in Appendix A on pages 43-44 of this report):

- Historical Studies
- Biological Sciences
- Arts and Literature
- International Studies
- Physical Sciences
- Philosophy and Values
- Social and Behavioral Sciences

In general, the committee found much that is admirable in this set of requirements. The committee’s recommendations were therefore largely created in a spirit of continuity – much of the suggested requirement structure will feel familiar to the L&S community. One set of changes, however, responds to the need members perceived for enhanced, early coursework to help students transition to the demands of the college environment. Following this need, members strongly endorsed the recognition in the Phase 1 reports of the central importance of foundational skills in writing, quantitative reasoning, and foreign language training.

The committee remains strongly in favor of retaining and in some cases strengthening training or augmenting offerings in these areas, and has made specific recommendations for the writing and quantitative reasoning requirements in particular that reflect this view.

However, the committee also strongly felt that L&S needs to respond – in a robust, curricular way – to a crisis moment in higher education around the practices of campus debate, discussion, and expression, particularly in the context of differing life experience, cultural backgrounds, and points of view. Students experience discourse of many different kinds on social media and the digital realm, but sometimes (or even often) have difficulty translating practices in these realms into the context of a community in which they need to interact with other people across their differences within a shared institutional or social space. Moreover, the understandable urge to protect students from material that makes them feel uncomfortable or “unsafe” is sometimes in tension with the necessity of undertaking complex discussions about difficult topics, even though the latter comprises one of the central sets of skills that universities are uniquely designed to develop. The committee therefore felt it necessary to recommend a required course that could respond to these dynamics. Such a course should connect students’ experience at university with those of their broader communities, and also respond — in a way unique to Berkeley — to the objectives articulated in Ronald Daniels’ *What Universities Owe Democracy* (a work the committee read and discussed). Members were struck by Daniels’ articulation of the critical role universities play in citizenship education, in the stewardship of information, and in the cultivation of pluralistic, diverse communities. They see an urgent need for universities to take on the challenges and tensions created by, within, and across these roles, and think that Berkeley should be a leader in developing a response to them.

Additionally, the committee wished to respond to two areas of frustration articulated by faculty and students regarding the breadth requirements. First, they wished to address student confusion over the rationale behind requirements beyond the major generally, frustrations with what they view as the disjointed and arbitrary designations of the breadth areas specifically. The committee largely views these as a response to the relative paucity of information for students regarding the rationale, structure, and value of a liberal arts education generally (acknowledging that while the L&S Advisors have tried to supply information regarding the rationale for requirements beyond the major, this isn’t signposted for students as robustly as it might be across the College and could be enhanced

significantly). The committee also notes, however, that the current requirements are categorized (“essential skills” and “breadths”) that are functional but not terribly inspiring, and that the breadth requirement areas are more specified and disaggregated than those of most other colleges in the US (especially among large, public, research-driven universities). Alongside these observations, the committee also wished to address frustrations expressed by faculty regarding the parameters of the International Studies breadth, particularly regarding its restriction to material covering the last twenty years from tightly constrained geographic areas.

In light of these concerns, the committee makes the following recommendations (details for these follow in the next section of this report – page ranges for specific topics are indicated below):

- To aid students’ sense of the logic behind and aspirations of the requirements of the College, we recommend renaming and restructuring the two major requirement categories (pages 35-39):
 - The current set of requirements referred to as “Skills” should be renamed “L&S Foundations.” In addition to its current set of requirements (two semesters of writing, one semester of Quantitative Reasoning, the equivalent of two semesters of foreign language), this category should also include “Global Perspectives” (a redefined version of the current “International Studies” breadth – see more below), and a new, 2-unit in-common course that students would take in their first year (also see below on the latter).
 - The current set of requirements referred to as “breadths” should be renamed “L&S Horizons” and be restructured as noted below
- The creation of a new, mandatory first-year course titled “Berkeley: Community and Democracy” (pages 19-24, and Appendix C pages 47-49)
 - A 2-unit course required of all first-year students (four-year and transfer students) that would introduce them to the goals and structure of a liberal arts education in the College of Letters and Science, and explore the relationship between a liberal arts education, the Berkeley Principles of Community, and the broader principles and practices of democracy.
- Undertake a comprehensive assessment of writing instruction and pedagogy across the whole of campus (pages 25-28). This should include

an external review component, and should be organized collaboratively between the various units that commonly offer R&C courses and train graduate students in this pedagogical area (for example, English, Comparative Literature, Rhetoric, College Writing Programs, and any units outside of L&S that offer R&C) and the Office of the Dean of the Arts and Humanities. This assessment is necessary both to discern the current practices of writing instruction and preparation to teach it, and to understand what might need to be changed.

- Augment the Quantitative Reasoning requirement to include more courses on how to navigate models of prediction and uncertainty (pages 29-33)
- Maintain the current foreign language requirement, including for transfer students (page 34)
- Modify the existing breadth requirements (pages 35-39) — to facilitate the increased number of Foundation courses students would now take, and to preserve as much as possible the student credit hour distribution (SCH) of the current requirement structure, the committee recommends:
 - Restructuring the “International Studies” breadth requirement
 - This should be renamed “Global Perspectives” and be redefined to expand the kinds of courses that could count towards it. We recommend that any course focusing on material outside the US in any time period should count, as should any intermediate or advanced foreign language course (the latter a decision made by the Executive Committee this past spring, which the design committee endorses). Any course that currently counts as “International Studies” should be grandfathered into this category. As noted above, this requirement should be moved out of the breadth category and into the “L&S Foundations” category of requirements
 - Reducing the number of required breadth courses from 7 to 5
 - Instead of subdividing these by topic, the breadth requirements should be distributed across the four areas represented by the divisions of L&S. Students would take 2 courses in Arts and Humanities, 1 in Social Sciences, 1 in Biological Sciences, and 1 in Physical Sciences

- This model protects as much as possible current SCH distributions, including for units outside of L&S that may rely on these enrollments for the health of their programs—more information on this on pages 37-39
- Create additional advising resources to help students navigate and make sense of these requirements (pages 41-42):
 - Standardize college communications of the requirements, including a more prominently displayed explanation of their benefits and the rationale behind them
 - Develop coherent “theme maps” for the requirements
- Create a regular interval in which the L&S Executive Committee re-evaluates the requirements of the college (page 40)

The committee recommends that these changes be implemented as soon as is feasible. Such a timeline would by necessity require sufficient time to conduct the comprehensive review of writing instruction on campus and to develop and assess a pilot version of the first-year “Community and Democracy” course (see pages 19-28 for more information regarding these recommendations).

For the most part, the committee restricted its considerations of the requirements to four-year students; with the exception of transfer student participation in the first-year “Community and Democracy” course, the committee does not recommend adding requirements for transfer students. However, in light of the disparity between the new Seven Course Pattern requirements for transfer admission and the CALGETC suite of general education transfer courses, and the anticipated drop in the number of transfer students who will have completed their GE requirements prior to matriculation, the committee endorses (and stresses the importance of) the recent decision by the Executive Committee that transfer students must still complete all remaining L&S college requirements, including the Foreign Language requirement. Please see Appendix B on pages 47-49 for a more detailed explanation of the new admissions and general education transfer credit programs for transfer students.

II. Recommendation Rationale and Explanation

A. First-Year Required Course “Berkeley: Community and Democracy”

In light of student skepticism about the definition and value of a liberal arts degree, the need to strengthen their sense of the critical role that this educational model plays in the health of democracy, and the ongoing need to help students learn to have discussions about challenging and complicated topics within and across difference, the committee recommends that L&S initiate a required first-year course for all students that addresses these topics. Several universities have responded to the need to introduce the “hidden curriculum,” or the forms of institutional behavior that aid student success, through a low-unit course. However, committee members felt quite strongly that Berkeley’s version of this course should be both more intellectually rigorous and adventurous and should also ask students to understand the role that Berkeley’s College of Letters and Science plays in larger democratic processes. To that end, the committee proposes an in-common course that introduces students to the goals and structure of a liberal arts education in the College of Letters and Science, and explores the relationship between the liberal arts project and the practices of community and democracy. This course should lead students through a discussion of what these different institutions and practices are, and how they influence or act on one another.

Goals for this course:

- To provide a common intellectual experience to all L&S students in their first year on campus
- To welcome students to campus, and to articulate why their presence at Berkeley is vital to its public, research mission
- To introduce students to the concept, structure, and value of L&S’s liberal arts education
- To integrate students into the role that universities – and Berkeley in particular — play in the health of democracies, especially as a space of public debate that challenges existing assumptions
- To enable students to have discussions about challenging and complicated topics about which there might be conflict, to help give them skills to talk with others within and across difference

- To help students develop habits of mind that will lead to success in their classes, and to approach these with a spirit of inquiry, integrity, and resiliency

For a detailed breakdown of course topics, please refer to the Appendix C (pages 47-49).

The course would have three primary parts. The first (2 weeks) would welcome students to campus, explain the public and research missions of Berkeley, and begin to establish trust and mutual respect among participants of the discussion sections. This first part would also initiate a discussion — one that would be extended throughout the length of the course — of what it means to be a member of the campus community. Participants would talk through Berkeley's principles of community, and what the terms "honesty, integrity, and respect for others" mean in the classroom and beyond. Through this material, students would also be asked to think about what it means to "show up" for class (the importance of class attendance, the reasons to have completed class prep like reading assignments beforehand), and the importance of learning to express your thoughts and giving space to others to do the same. The first part would conclude with an introduction to the multidisciplinary nature of the College of Letters and Science – what that means, how it supports and enables a liberal arts education, and the importance of the latter to the healthy functioning of democracy.

The material on the liberal arts model of education would serve as a bridge to the second major part of the course (2-3 weeks), which would introduce students in more detail to the research mission of the university. It would begin with a discussion of the work of research as an ongoing discussion around facts and how to understand them, and why debate is a critical element of this work. This part of the course should talk students through the ways that research both supports and sometimes imperils democracy – in addition to highlighting the processes of research that enhance democratic forms of knowledge production, it should also acknowledge Berkeley's own history of hosting research that supported goals damaging to the full enfranchisement of the people of California (for example, those with Eugenicist goals or hostile to marginalized social groups) and debates over campus attempts to remediate these problems. Using these examples as a point of departure, students would then work through material on research integrity (including why plagiarism is a problem, and the consequences of engaging in it for both students and faculty), and on academic freedom and tenure. This material would highlight research processes and expectations – both

ones that potentially exclude marginalized or vulnerable populations, and those that are necessary to protect research integrity.

The focus on academic freedom and research integrity that concludes the second part of the course would provide a bridge to its final part, on the role of dialogue, debate, and difference in the life of the university, and on how these processes form the foundation of the role universities play in the health of democracies. This part — the largest of the course at 8-10 weeks — would move from the role of debate within the context of research to return to the campus principles of community, and forms of conduct incompatible with them (threats, targeted harassment, and so forth). It would also cover the history of the Free Speech Movement in the context of the First Amendment, debates about hate speech, and other aspects of campus expression. These discussions should directly address the extent to which “speech” has become a loaded and even fraught concept — instructors should ask students to consider the history of concepts of speech and expression and community, on the impact of these concepts on different communities, and how commitments to these concepts have played out within the history of social movements, both at Berkeley and outside of it.

Across these topics, the course would explore the potential conflicts between bedrock principles such as the freedom of expression and the freedom from discrimination, and ask students to consider the role of pluralism and compromise in the attempt to work through these conflicts. Finally, the course would consider these histories and questions within the context of social media, and the dynamics of trolling, doxxing, disinformation, algorithms, and other elements of the digital world that so heavily influence life on campus and beyond.

Through the exploration of this material, the course should highlight for students the vital role they play in the mission of the university, introduce them to habits of inquiry and integrity, and contextualize these habits within the processes of dialogue, debate, and difference that are central to knowledge formation. Students should be made to feel welcome on campus (especially those students who might otherwise feel they do not belong), be given a sense of how to have a successful, transformative experience in L&S, and a sense of the connection between their life in the university and their life beyond it.

The L&S first-year course promotes several of the specific dispositions and competencies highlighted in the Interim Report:

- *Responsibility* (taking charge of your own learning and work): this competency would be a theme in the first part of the course, helping students develop and find their voices in the curriculum and the classroom, and to balance this need with the needs of others
- *Spirit of inquiry* (curiosity, exiting your comfort zone, being willing to be wrong): this competency would also comprise a large theme in the first part of the course about the academic context—especially with respect to the theme of expression of ideas in the classroom, lab, or studio
- *Inhabiting others' perspectives* (including engagement across political and other forms of difference): this competency comprises a significant element of the course, with the second half of its content devoted specifically to helping students develop and understand the centrality of this skill to both the life of campus and the world beyond it
- *Integrity*: this competency will be emphasized in the academic context (honesty and academic integrity as critical components of classroom and research conduct) and in the broader campus context (principles of community in the classroom and beyond)

Course structure

To aid student participation in the course, the committee recommends that it be implemented as a 2-unit course with three hours of class time. One hour of class would be provided through pre-recorded lectures and faculty panels (see detailed course topic breakdown in Appendix C on pages 47-49 for more information) that provide the in-common materials and content continuity of the course, and two hours discussion section, some of which would be devoted to reflection on the materials of these lectures, and some of which would cover other topics. The committee recommends that the majority of the formal work of the course occur within these meetings, as one of the course's primary goals is to have students learn to engage in discussion with one another, even on topics about which they may disagree. Reading and other assignments should be gauged to accommodate the two-unit level. The pre-recorded nature of the lectures should help avoid the problems of needing to find a large enough lecture hall for all members of the incoming cohort, and would avoid the problem of low attendance for in-common materials (the committee determining the final organization of the course – see below– could be asked to determine a method to ensure that students actually view this material).

The committee recommends that *all* students in L&S be required to take this course — in the first two semesters for four-year students, and (if at all logistically possible) in the first semester for transfer students. In order to expose students to as wide a range of their peers' experiences and points of view as possible, we also recommend that sections be made up of a mix of four-year and transfer students (though please see the note on the pilot assessment in the "design and implementation" section on this course regarding the experience of transfer students in discussion sections).

To encourage students to take risks, including in the articulation of opinions with which their instructor disagrees, the committee recommends that the course be offered only on a pass/no pass basis. Members hope that freeing them up from a letter grade will enable students to develop their own positions and ideas without fear of censure. The committee recommends that the course should not count towards the P/NP unit limit enforced by the College (in other words, the 2 P/NP units of this course should be allowed in addition to the current limit for this grading option). The faculty committee tasked with final design of the course (see "design and implementation" below) should determine a clear minimum bar for what passing looks like, including regarding mandatory attendance policies (in accordance with the DSP policies and with accommodations for special challenges) and participation criteria.

To avoid the problem of having instructors who are in potentially vulnerable employment positions teaching potentially fraught content, the committee recommends that the course should be staffed by senate faculty (including LSOE faculty) as an overload, with summer stipends offered as compensation for teaching these courses. Student credit hours (SCH) should be awarded to the departments hosting discussion sections.

Design and Implementation

The committee recommends that the course be designed and implemented in two stages prior to its incorporation as a formal requirement for the entire entering cohort of the College.

First, the detailed design of the course – including weekly lecture and discussion topics, reading lists, and assignments — should be determined by a committee of faculty recruited to determine its final shape, and potentially to supply the first round of instructors for it. This committee should reflect the broad diversity of disciplines of the College as well as the diversity of its faculty as much as

possible, and a request made to department chairs for recommendations for its membership. This committee should make the final determination on content, including whether there should be leeway for faculty to teach certain topics in disciplinary-specific ways.

Second, the course should be mounted as a pilot in order to assess its strengths and weaknesses and address any problems that arise from its content or structure before being mounted as a requirement for all entering undergraduates. At the time of pilot assessment, the committee recommends that special attention be paid to the experience of transfer students in the discussion sections. At this time, the committee recommends that discussion sections be made up of a mix of four-year and transfer students, in order to ensure participants' exposure to as broad a range of experiences and viewpoints as possible. However, the committee recognizes that transfer students may feel that they would benefit from discussion sections designated solely for them, to provide a space for social connection that allows for the distinctive kinds of life experience these students often have. For that reason, we recommend that the initial pilot hold aside a few sections reserved solely for transfers, and that the course assessment (perhaps in specially-designed course evaluations) ask *all* transfer participants whether they found the general population discussion sections welcoming or alienating, and whether they would prefer discussion sections geared specifically towards them. This pilot could also be used as a mechanism for fundraising to offset the cost of operations for the course.

B. Writing Instruction: The Need for Comprehensive Review

Writing instruction in higher education is at a watershed moment. At the same time that generative AI is forcing a reconsideration of writing pedagogy, there is a broad recognition among faculty, alumni, and the students themselves of the importance of writing as a mode of communication, as a crucial mechanism for the development of critical thinking skills, and as a key aspect of the broader formation of community and engagement across campus. In this context, the writing committee tried to determine the best way forward to raise the standard of this skill among our students and to create a coherent and sustainable culture of writing in the College of Letters and Sciences, one grounded at once in the heterogeneous forms of written communication in L&S disciplines and in the possibility of pedagogical collaboration across them. Members identified the need to build writing instruction more deliberately and consistently into the undergraduate experience at Berkeley so that students understand their instruction in writing as part of their overall intellectual, critical, and exploratory experience. In short, if writing is considered to be a mode of thinking, critical engagement, discovery, and community building, it should be something the College establishes early on as a required part of an L&S education.

Committee members wanted to note that they view Berkeley's history (and its present) as a foundation for a clearly defined culture of written and oral communication, to which the conception of writing and reading as critical thinking is central. At the same time, we also note that we have not yet achieved this culture as we have wished and that many of our undergraduates enter upper-division courses without sufficient writing and research skills. It is time to evaluate how we might realize our aspirations more fully.

Given this, the committee recommends that the campus undertake a comprehensive assessment of writing instruction and pedagogy across the entire campus, including an external review component. Berkeley seems to have never undertaken this kind of comprehensive assessment of writing instruction across the full campus offerings of these courses, despite several smaller studies and reports into the topic going back to the initiation of R&C's current parameters in 1989. College Writing Programs has never undergone full review, and R&C courses and practices are not specifically assessed within the departments that deliver these courses when they undergo Academic Program Review.⁶ In the absence of

⁶ See the campus APR Guide, especially the section on self-study prompts around undergraduate education (pages 12-14). In these prompts, R&C is folded into a general assessment of

current and comprehensive data from a thoroughgoing, cross-campus, and unit-inclusive study—with the benefit of an external perspective—much of the information about writing instruction remains anecdotal and partial. Several peer institutions have recently initiated such reviews, including Rutgers, Columbia, and the University of Southern California. Ideally, such a review would be constructive in presenting a comprehensive picture of writing instruction and pedagogy on campus, and would help decision-makers understand Berkeley’s practices in the context of other national, even global, configurations. In the process, the assessment should recognize and help to communicate the diverse best practices of writing instruction being used at different locations within the College of Letters and Science and elsewhere across campus.

The committee agrees that we need such a comprehensive review prior to any other action the college might take to revise and enrich our communities of writing. We see this review as urgent for four primary reasons:

1. In both the Phase 1 faculty working group report and L&S Executive Dean Johnson-Hanks’ interim report, critical thinking was identified as the most important skill that our students need to cultivate, for which reading and writing were flagged as central components. Supporting this finding, writing itself was identified as the second most important skill for our students. In addition to remarking on the importance of basic writing mechanics, faculty identified the comprehension of difficult material, the capacity to read closely, the competence to write well across several genres, and the ability to explain complex ideas as critical arenas of student skill-building. While some of these goals are articulated in past R&C reports (for example, the emphasis on reading and the connection between reading and writing), others listed as important to the faculty in the Phase 1 report are not, and the committee felt it important to undertake a comprehensive review in order to determine whether the specific current structures of the requirement are best-suited to develop the skills identified by faculty as central.⁷

undergraduate curriculum, but at no point is R&C specified for particular attention, other than as part of a general question regarding how the unit participates in the common-good curriculum of the campus.

<https://docs.google.com/document/d/12MtbxBzlleX4lqdTdl4vr7XC6jYvRpXCRMLXWPaRYvE/edit>

⁷ Please find the Phase 1 Faculty working group report here:

<https://drive.google.com/file/d/1wIW-VunHHKehBjcgwtBtWdo-BH-2d-q1/view>

2. With this latter point in mind, the committee noted that the goals and guidelines for R&C have not been significantly revised since they were first articulated in 1989.⁸ The secondary education contexts for our incoming students and the post-graduation needs of our outgoing students might, we expect, have changed in the intervening thirty-five years, and the technological landscape in which they read and write most certainly has.

3. The committee was struck by the disparity between the sentiments regarding the importance of writing, the national (and U.C.-wide) practice of requiring at least one writing-intensive course as part of undergraduate education, and L&S's practice of allowing students to test or place out of both semesters of R&C. Berkeley is the only campus in the U.C. system that allows students to place completely out of its written communication requirement.

4. As the campus continues to expand and diversify, both in terms of people and pedagogies, we see a need to map this expansion so that we can continue to collaborate effectively where appropriate and communicate with one another about the writing and reading practices across campus and the related pedagogies.

Whatever the outcome of the review, the committee stresses the absolute necessity of maintaining support for graduate students through the instruction of writing, as the health of doctoral training in the Arts and Humanities division in particular is absolutely dependent on that funding.

The committee recommends that the final set of topics for review be determined in collaboration with all college stakeholders, particularly with those departments that offer R&C and other writing-enriched courses, such as the Departments of English, Comparative Literature, Rhetoric, and others with different needs and challenges. Non-departmental units that host significant numbers of R&C sections such as College Writing Programs and the Fall Program for First Year Students (FPF) should also be included in these decisions. The review should also involve staff from the Arts and Humanities Dean's office with the necessary data for sound decision-making.

⁸ The most recent revision of the R&C guidelines was made in 2011, but largely repeats the 1989 goals and guidelines. Moreover, at that time, the 2011 guidelines could not have anticipated the emergence and impact of generative AI on writing instruction, which urgently needs attention.

Beyond this, the committee devoted some time to what questions might structure conversations with these stakeholders in advance of the review in order to determine its structure and topics, and suggests the following as points of departure for these conversations:

- What are some of the issues around undergraduate writing that you see in your department? Are there particular areas in which students seem to struggle? Areas in which they flourish?
- What kinds of support around R&C would be helpful for your unit? What would your ideal version of infrastructure and support for R&C teaching and instructor training look like? What is the role of R&C coordinator in your unit?
- How do you think about the relationship between R&C and disciplinary writing in your program?

The committee further recommends that the assessment explore the following:

- The full scope and diversity of writing instruction on campus, in order to identify how and where this occurs, including in units beyond L&S
- The full scope of pedagogical support for writing instructors, including graduate student instructors, across campus
- The full disciplinary range of what faculty in different divisions and departments would like to see in student writing
- A review of the description of and goals for R1A and R1B
- The test-out options for both R1A and R1B
- Mechanisms to ensure sufficient seats for students to be able to fulfill the requirement early in their degree process (perhaps with a view towards reinstating the four-semester deadline by which students must complete this requirement – a deadline lifted in light of significant seat shortages post-pandemic)

The committee looks forward to beginning a process of review and revision that will help illuminate, strengthen, and ensure a rich future for writing in the College of Letters and Sciences and at UC Berkeley as a whole.

C. Quantitative Reasoning: More Training in Predictive Reasoning

The committee wishes to begin its recommendations regarding the QR requirement by noting that it exists principally to give students who do not go on to further training or instruction in quantitative methods a foundational set of skills in this area. Among first-year, four-year students who matriculated in Fall 2023, 60% (or 2197 students) had already fulfilled the requirement, but of those students, fully 85 percent of them went on to take a course that would fulfill it in any case (presumably as part of preparation for a major or out of a personal sense of the importance of the skills learned in those courses). In light of these numbers, the committee views this requirement as primarily geared towards those students who *only* take one of those courses to fulfill the requirement, and not as preparation for further quantitative training or for a major. With this context in mind, the committee had an extensive discussion regarding what students who will not go on to career paths requiring quantitative training need to know to understand and interact with the world.

In order to help students grapple with the changing data environment — a reality that will affect them regardless of career or life path — the committee recommends an expansion of the kinds of courses that could satisfy the quantitative reasoning requirement to include more that focus on probabilistic reasoning. In this age of increasing public skepticism of facts, as well as rapidly evolving methods for the manipulation and misrepresentation of data, students need a basic grounding in interpretation and evaluation of quantitative information presented to them. At the same time, there is a need for public understanding of the fact that there are often inherent uncertainties in finite data sets, the models we generate and utilize to understand and predict patterns in those data, and in solutions to problems that may be advocated based on model results (e.g., quantifying human impact on Earth's climate, determining how a new virus spreads to create a global pandemic, and policies related to both). How do we determine the uncertainty of our models and how do we navigate in the face of at least some inevitable uncertainty?

Regardless of their intended major or career pathway, students would benefit from an expansion of the quantitative reasoning requirement to include more training in prediction and uncertainty in a variety of ways:

- Critical thinking and evaluation of data: In keeping with the Phase I faculty working group finding and Johnson-Hanks' identification of critical thinking as a high-priority competency, the committee stresses the importance of understanding how quantitative models are used to make predictions. Being able to estimate and understand the role that uncertainty plays in quantitative models will provide students with the ability to analyze data critically, understand error analysis and uncertainty, and assess risk. These skills enable well-informed decision-making, where analyzing empirical evidence is an input in the process. This ability may be invaluable not just in quantitative fields but in some everyday life decisions (medical, societal, etc.) as well.
- Research Skills: For students involved in any form of research, understanding uncertainty is crucial for designing experiments, interpreting data, and validating results. It is expected that any major where errors are important would require such skills.
- Career Versatility: Knowledge of quantitative predictions and their associated uncertainties has an ever more important role in a wide range of career paths in fields such as finance, economics, engineering, data science, health sciences, and more. These are foundational skills that enhance employability across most industries, regardless of major.
- Technological Competence: As machine learning and artificial intelligence become increasingly prevalent, it's crucial to either understand or, depending on one's technical expertise, at least have a basic grasp of the statistical foundations that these technologies are built upon. Probability and statistics, for example, are at the heart of many algorithms that drive innovations and solve complex problems.
- Bias: Students should understand how algorithms have biases, how to be alert for such biases, and the potential methods for avoiding these when relying on such algorithms (both machine learning and AI).

The committee therefore proposes that the current [QR requirement](#) be expanded (not replaced) to include more courses that teach predictive reasoning (see Appendix D on pages 50-52 for a list of Berkeley courses that currently fulfill the requirement). This roster already includes some courses that do so, but the committee recommends that the Executive Committee find more already-existing courses that might be incorporated, or to work with departments to reframe or alter courses that might not yet meet the criteria for this requirement (see more on the latter below). These might include:

- Social science courses that involve models, statistics, and/or understanding uncertainty (in economics, sociology, political science, psychology, and so forth)
- Biological science courses that involve models, statistics, and/or understanding uncertainty that include living systems (in ecology, environmental science, biology, or public health)
- Physical science courses that involve models, statistics, and/or understanding uncertainty (in astronomy, physics, earth science, planetary science, climate, or environmental science)
- A version of the course "Sense, Sensibility, and Science" currently mounted through the Big Ideas program, which could be revised to include sections involving significantly more calculation work (see more below)
- Other courses in math, applied math, statistics, philosophy (e.g. decision theory), and engineering departments

In order to determine which courses could be added to the roster of ones that fulfill the QR requirement, the committee recommends that the L&S Executive Committee (i) determine (or revise if helpful or necessary) the criteria courses would need to meet to fulfill the requirement, (ii) look for existing courses in the College that could meet the expanded spirit of the requirement, and (iii) invite and vet proposals from host departments to add to the QR roster of courses. In preliminary discussions about the criteria for the QR breadth, the committee discussed the following elements as essential criteria for this requirement: numeracy, precise conceptual definitions and thinking, and deductive reasoning.⁹ We recommend that the Executive Committee undertake a joint deliberative process with the Dean of Math and Physical Sciences to finalize these criteria to include predictive reasoning in ways that could still allow for an expanded list of courses that could fulfill the requirement.

Looking at specific courses, the committee also recommends an expansion of Saul Perlmutter's "Sense, Science, and Sensibility," a Big Ideas course that focuses on:

...the insights and conceptual tools from scientific thinking [that] are of great utility for all kinds of reasoning, from reading the news

⁹ Members of the design committee working on this element of the recommendations met with Math and Physical Sciences Dean Steven Kahn, and Mathematics faculty David Nadler and Nikhil Srivastava.

critically to making decisions under conditions of uncertainty. The focus in this course is on the errors humans tend to make, and the approaches scientific methodology has developed (and continues to develop) to minimize those errors. The course includes a discussion of the nature of science, what makes science such an effective way of knowing, how both non-scientific and scientific thinking can go awry, and how we can reason more clearly and successfully as individuals, as members of groups, and as citizens of democracy.¹⁰

This course especially strikes the committee as dedicated to precisely the topics of prediction and uncertainty that an expanded definition of the QR requirement could encompass. However, while the course currently teaches mathematical thinking in a conceptual sense, it does so without requiring students to understand or undertake actual calculation. Professor Perlmutter has noted that this course could be restructured so that specific discussion sections were developed around numeracy skills of the kind required of QR, and that there are many clear and natural places for this in the course already. Therefore, the committee recommends that the campus invest in a pilot version of this course that would undertake this kind of restructuring. This version would need to at least include sections geared towards students whose skill level did not yet meet the QR threshold (i.e. unable to pass the test administered by the Math department that serves as a "test-out" option for the QR requirement), but could also have sections that include the kinds of calculation work from which more advanced students could benefit. The committee notes that the College of Computing, Data Science, and Society is partnering with Professor Perlmutter to develop lab sections for the course dedicated to meeting the Human and Social Dynamics of Data and Technology college requirement, including working with data sets. In light of these efforts, we encourage L&S to work with the CDSS faculty developing this version to see what could be created for L&S students as well.

In light of the data regarding QR course enrollments, the committee does not recommend changing the "test-out" options regarding this requirement at this time (see Appendix D on pages 50-52 for the current list of mechanisms for this). Regarding transfer students, given that this population must have already taken a QR-equivalent course to be eligible to apply to Berkeley, the committee does not recommend additional requirements for transfer students in this area.

¹⁰ For an explanation of the course and its topics, see <https://sensesensibilityscience.berkeley.edu/>, and especially https://sensibility.berkeley.edu/index.php?title=Topics_and_lesson_plans

Finally, in order to help students determine which of the QR courses best serve their needs, the committee recommends that the advising materials online or used for in-person advising be reframed to clarify the different options available, and to flag more explicitly the different kinds of skills different courses build.

D. Language Study

The committee felt strongly about the importance of language acquisition courses, as the forms of intellectual training they enable are tied to several of the larger goals of requirements beyond the major outlined in this report. In enabling a unique experience of alterity, language training provides an important window into other ways of thinking in other cultures, supporting the interim report's recommendation of inhabiting the viewpoints of others as a critical goal of the college requirements. In an age of automatic translations and large-language model AI, it becomes especially crucial that our students have a personal experience of another language, as part of their development of creativity and the imagination. Learning another language teaches students to distinguish between an automated experience of language and the experience of language among actual human beings, especially in areas like mutual understanding.

Supporting the stress on writing as a key competency of the requirements, language training also offers what is for many native-English speakers potentially their first or only formal training in language structure and mechanics, reinforcing their ability to write and express themselves in English as well. Moreover, in a fundamentally multilingual state like California, these courses also provide a critical welcome into the College, especially for those for whom English is not their first language or language at home, by helping them feel like non-English experiences are part of the experience of the College.¹¹

For these reasons, the committee supports retaining the existing foreign language requirement, and endorses the decision made by the Executive Committee in Spring 2024 to reinsert the possibility of intermediate foreign language courses as one mechanism to fulfill the International Studies requirement (which the committee recommends renaming as "Global Perspectives" – see more on pages 36-27). For students who have already completed the beginning language training courses, intermediate or advanced courses could also be incorporated into the various breadth clusters recommended in the "Advising and Navigation" section towards the end of this report (see pages 41-42).

¹¹ For more background on the role of language training as a common good of the College and the broader campus, please see the Final Report of the Languages, Language-based Disciplines, and Global Citizenship Task Force, June 2023, which makes these and many other important points regarding language training.

E. Breadth Requirements: Simplify the Structure

In some ways, determining an ideal configuration of the “breadth” system was the most difficult task with which the committee grappled. On one hand, members identified the breadth system as central to teaching students a broad range of critical thinking skills and providing them with key domains of knowledge — both competencies identified in the interim report. At the same time, members were also concerned about the total number of required courses, especially in light of the new “Community and Democracy” requirement and the possibility that a comprehensive review of writing instruction might recommend requiring one semester of writing instruction at Berkeley for all L&S students (which would put L&S’s practice in alignment with its UC peers). Additionally, in discussions with L&S Undergraduate Advisors, faculty, and members of both the L&S Executive Committee and the Courses of Instruction and Academic Programs Committee (or CAP, which reviews all courses proposed as breadth requirements for the College), the following issues with the current seven-course breadth structure became apparent:

- Fairly broad confusion and even frustration over the current parameters of the International Studies breadth area, which limits it to courses that cover material from the past twenty years and within only a narrow regional or single-country focus. It was not clear why, for example, a course on the history of Latin America would not represent the spirit of an International Studies breadth simply because its material covered primarily pre-21st century materials and focused on an entire continent rather than a single country (or a tightly restrictive set of them)
- Confusion, even among CAP members, as to how some breadth categories (for example, Historical Studies versus Social Sciences, or Arts and Literature versus Philosophy and Values, or Historical Studies versus International Studies) were to be clearly differentiated from one another
- Alongside the above points, students reportedly feel like the breadth requirements and their category designations are arbitrary and disconnected, and sometimes find them difficult to navigate

In determining a new model for breadths, the committee attempted to balance five needs:

- A reduction in the total number of breadths that students would be required to take in order to make room for the new first-year course requirement

(and potentially, pending the comprehensive review of writing, a mandatory on-campus semester of writing instruction)

- The inclusion of guardrails to ensure students are exposed to ideas, information, and ways of thinking outside of the area of their major (for example, ensuring that STEM majors take humanities courses and vice-versa)
- The designation of sufficient numbers of courses in each breadth area for students to complete the requirement
- The minimization of department and committee labor (i.e. avoiding having to resubmit for CAP consideration all courses currently designated for breadth)
- In light of campus SCH pressures on departments, the preservation of current SCH distribution patterns inside of L&S divisions and beyond as much as possible

Balancing these needs proved to be tricky. To try to do so, the committee recommends the following model:

1. The breadth requirement category should be renamed "L&S Horizons." While there is nothing terribly wrong with the term "breadths" to describe this requirement category, it is also a largely functional term, and lacks the aspirational sensibilities we hope college requirements could impart. The term "Horizons" denotes the sense of transformative expansion we believe these courses offer, the way they push the range and limits of our students' understanding of the world and invite them to explore information and ideas they might not even know exist.
2. The "International Studies" requirement should be renamed "Global Perspectives," and should be redefined to include any course focusing on material from outside the United States in any time period. For example, a course on Latin American history (which would be rejected under the current criteria) should be allowed to count towards this breadth area. Following the decision of the L&S Executive Committee of Spring 2024, the category should also include any intermediate or advanced foreign language course. Any course that currently counts as "International Studies" should be grandfathered into this category. We offer the following description for this new orientation to the requirement:

"An in-depth exploration of the historical, cultural, political, philosophical, artistic, social, or economic facets of any region, country, or set of countries outside the United States. May include material from any time period. May also include any intermediate or advanced foreign language class or full-time study abroad for at least one semester."

3. The "Skills" category should be renamed "L&S Foundations." Committee members felt that the current category breakdown artificially separates skills from content work, and renaming the "skills" category as "foundations" helps highlight the importance and necessity of these courses to successful academic experiences in students' time at Berkeley. Out of the belief that L&S students should have a foundation in contexts outside the country in which they live, the committee recommends that the "Global Perspectives" requirement be moved to the "L&S Foundations" category along with the new first-year course "Community and Democracy." As is the case with the current "skills" category, students should be required to take these courses for a letter grade (i.e. no P/NP option for this category), with the exception for the new "Community and Democracy" course (which, for the reasons noted in the detailed discussion of this course, should only be offered on a P/NP basis).

4. To make way for the increased number of Foundation courses, the total number of breadth requirements should be reduced. To prevent the disruption of SCH distributions, the committee recommends a divisionally-based 2-1-1-1 breadth model, wherein students would take two courses in the Arts and Humanities division, one in Social Sciences, one in Physical Sciences, and one in Biological Sciences.

To prevent students from undermining the broad educational goals of the "Horizons" requirements, the committee recommends that students not be allowed to take both of their Arts and Humanities breadths in the same department. Additionally, in recognition of the role that arts-making plays in enabling the practical application of broader humanistic reasoning and several of the key competencies of the interim report (notably critical thinking, the spirit of inquiry, collaboration, and inhabiting the perspectives of others), the committee recommends that "practice" based courses in the arts departments should count towards this breadth category (at the discretion of the host departments). Beyond these provisions, the

committee hopes the new “Horizons” requirements will be implemented in ways that encourage as broad an education as possible for our students (see the section on advising below for suggestions that might aid this goal).

With respect to this last recommendation, the committee suggests that students should only be required to take one course from the Social Sciences because a significant majority of L&S students already fulfill the current International Studies requirement using courses from that division. For example, in the Fall semester 2023, 1864 students took courses that were recorded in the Academic Progress Report (APR) as fulfilling the International Studies breadth. Of those, 1195 took a course in the Social Sciences division, 397 in Arts and Humanities, 74 in the Undergraduate Studies division, and 189 outside of L&S. In other words, nearly 65% of L&S students took a Social Sciences course for this requirement. If the division of Social Sciences is nevertheless concerned about a potential loss of SCH in the recommended model, the distribution of SCH for the first-year course “Community and Democracy” could be weighted to make up for it. Additionally, the divisional deans (in collaboration with department chairs in their units) could identify specific departments or courses that they wish to have highlighted in the development of the breadth clusters recommended in the advising section of this report (see pages 41-42) in order to attract student enrollment in those courses.

Courses in the Undergraduate Interdisciplinary Studies (UGIS) programs or those from outside of L&S that currently count towards the seven breadth areas should be grandfathered into the new breadth requirement configuration (for example, courses in the Rausser College of Natural Resources that currently count towards the current Biological Sciences breadth should be allowed to count towards the new version of this breadth area; courses in CDSS that currently count towards the Philosophy and Values breadth should be allowed to count towards the Arts and Humanities breadth), as should new courses developed by those units. Courses specifically designed to cross divisional areas of the College (for example, those that address both humanities and social sciences content or methods) could be given one of two options: (1) be allowed to count towards *both* breadth areas, or (2) choose which breadth area to count towards. In the case of courses that could count towards two different areas, students should be required to make a choice as to which area they want a given course to count (i.e. as is currently the case, they should not be allowed to “double-count” the breadth areas within a single course).

As is currently the practice, courses in Math and Statistics should *not* count towards the Physical Sciences breadth requirement, both for intellectual reasons and to avoid harming SCH distribution in the physical sciences.

Finally, the committee recognizes that the Phase 1 faculty working group identified history as one of the primary key areas of knowledge in which students needed to be educated. The committee agreed with this assessment, and identified the degree to which historical thinking and historical information is distributed throughout several of the breadth areas in the new recommendation configuration. For example, the newly expanded definition of Global Perspectives (and its shift to the "Foundations" category of requirements) allows students to fulfill this requirement via historical perspectives in many departments and disciplines (including but not limited to the History department itself). This shift allows for training in many different historical contexts for students, who may also use a historically-oriented course to fulfill their social science (or even their Arts and Humanities) requirement as well. Having pointed this out, the committee recommends that the new description of the Global Perspectives requirement should highlight history courses as one of the important options for fulfilling the requirement. The courses that fulfill the requirement should avoid centering the US in their material (and the requirement description should explicitly address this issue).

F. Recommendation for Regular Evaluation of College Requirements

In order to ensure that the L&S requirements beyond the major continue to serve as an important mechanism for our students' understanding of the world, the committee recommends that the L&S Executive Committee set a regular interval by which it evaluates the requirements of the College. The committee suggests that the Executive Committee initiate a review of how the requirements are working every ten years, with revisions as deemed necessary.

G. Recommendations for Advising and Student Navigation

To address the frustration students sometimes express that college breadth courses and skills requirements are incoherent (or that the areas are random and arbitrary), the committee makes the following recommendations, which involve practices around advising rather than changes to the requirements themselves.

The goals and rationale for requirements beyond the major articulated at the beginning of this report should be prominently and broadly disseminated among all members of the L&S community, but especially among our undergraduates. These should be clearly posted in all college communications regarding degree requirements (including websites and Golden Bear Orientation and Golden Bear Advising mentoring materials for L&S students) and referred to when students have questions about the requirements. These materials should be developed by the L&S Executive Dean's Office for dissemination to applicable units, and incorporated into all official L&S information materials.

The structure of L&S degree requirements should be more clearly communicated in online materials and should be standardized across them. At the moment, a Google search for L&S degree requirements produces two separate pages that articulate these in quite different ways. In one case, the list of requirements is buried at the end of the linked page, making it difficult for students to find. The committee recommends that once the final structure of requirements is determined, the L&S Communications staff should audit current advising websites to standardize the explanation of requirements. This office should work with L&S Advisors and the Office of the L&S Executive Dean to remove redundant (or out-of-date) information, clarify and standardize the explanation of requirements to make them as easy to understand as possible, and highlight an explanation of their rationale and benefits.

Finally, the Office of Curricular Engagement should work with L&S advisors to help produce mechanisms to aid coherent navigation assistance for undergraduates. In particular, we suggest that these offices should create "theme maps," or curated sets of thematically-organized course clusters that cover, as much as possible, the specified breadth areas. These clusters should be structured to aid the final goal of the requirements noted at the top of this report, namely that requirements beyond the major should "equip students with a broad set of tools to better understand their world as composed of interlocking systems" (see pages 11-12).

For example, a theme cluster in environment and climate could include an Integrative Biology course on the natural history of California, an Earth and Planetary Studies course on climate change, a Philosophy course on ethics and moral choice, an Economics course on the microeconomics of economic policy, and an Art History or literature course on work about the environment. A theme cluster in immigration and public health could include a U.S. history (or other similar) course on immigration, an American Cultures literature course, a course on bioethics, and an introductory sociology course. Students could be incentivized to pursue a theme cluster by being given a certificate for having taken some minimum number of courses within a cluster (perhaps 4 or 5) with a note on their transcript that explains these cluster themes and their significance. The Office of Curricular Engagement could be directed to identify departments that particularly wish to have courses designated for these clusters (and departments could be encouraged to identify courses for which they would specifically like to add or avoid more enrollments). The clusters could be developed in conjunction with the first-year Pathways program as it also grows and changes (that program could, for example, serve as an entry point for these clusters). The Office of Curricular Engagement should ensure ongoing communication with departments both to avoid overwhelming them (or directing students to classes that departments wish to remain at their current size and population), and to ensure sufficient seats and course frequency for especially popular clusters.

Recommendation Signatories

Shannon Steen, Professor of Theater, Dance, and Performance Studies

Kristie Boering, Professor of Earth and Planetary Science

Cindy Cox, Professor of Music

Britt Koskella, Associate Professor of Integrative Biology

Jonah Levy, Professor of Political Science

Craig Miller, Professor of Molecular and Cell Biology

Carlos Noreña, Professor of History

Poulomi Saha, Associate Professor of English

Chenxi Tang, Professor of German

Ula Taylor, Professor of African American Studies

Jonathan Wurtele, Professor of Physics

III. Appendices

Appendix A — Definitions of Current Breadth Areas

Art and Literature: Knowledge and appreciation of the creative arts. Courses meeting this requirement involve significant engagement with arts, literature or language, either through critical study of works of art or through the creation of art.

Biological Science: An Introduction to the diversity of life on all scales (e.g., molecular genetics, structural biochemistry, ecosystems, and evolution). Courses that satisfy the Biological Sciences requirement use a combination of observation, hypothesis-driven data analysis and experimentation.

Historical Studies: Perspectives on the human condition and an appreciation of the origins and evolution of the numerous cultures and social orders that have populated the earth. Courses fulfilling this requirement deal primarily with the human events, institutions and activities of the past.

International Studies: An in-depth exploration of political, cultural, artistic and/or socio-economic life centered on a country or region other than the United States and in the contemporary period.

Please note: as of Fall 2025, second-year language study (minimum third semester) will be allowed to satisfy the IS breadth requirement, out of recognition that these courses engage with the contemporary politics and culture of the area(s) where the language is spoken. As is currently the practice, language proficiency exams will not be allowed to satisfy International Studies, but it may be satisfied by full participation in a study abroad program.

Philosophy and Values: Investigation of the intellectual and ethical motivations that inspire the record of humanity's social and cultural achievement and to ponder the types of questions that will enhance their ability to understand their heritage, their contemporaries, and themselves. Courses fulfilling this requirement include those with a major focus on religion, ethics, legal values, or leading philosophical figures.

Physical Science: A quantitative understanding of the physical universe, from its microscopic underpinnings to its large-scale structure and evolution. Courses that satisfy the Physical Science requirement teach students how to explain natural

phenomena starting from first principles, using a combination of reason, experiment, and quantitative analysis.

Social and Behavioral Sciences: Analyze the determinants of human behavior, the dynamics of social interaction among human beings, and the complex political, economic, social, cultural, and psychological factors at play in societies. Courses meeting this requirement include courses in development studies, economics, political economy, history, legal studies, political science, sociology, social welfare, and many courses in anthropology, linguistics and psychology.

Appendix B – Transfer Students: Current Admissions Requirements and General Education Transfer Credit System

Prior to Fall 2025, L&S required transfer students to have completed a suite of requirements referred to as the “Intersegmental General Education Transfer Credit” package (or IGETC) as minimum transfer admission requirements to L&S. This suite of courses matched (and was accepted as the equivalent of) the full set of L&S requirements for both the Essential Skills and 7-Course Breadth categories.

However, as of Fall 2025, L&S will be required by the UC system to disaggregate minimum transfer admission requirements from its college requirements. This means that as of Fall 2025, transfer students must have completed the following “Seven Course Pattern” requirement by the end of the Spring semester prior to a Fall enrollment in a UC campus:

- Two transferable courses in English composition;
- One transferable course in mathematical concepts and quantitative reasoning;
- Four transferable college courses chosen from at least two of the following subject areas:
 - arts and humanities
 - social and behavioral sciences
 - physical and biological sciences

(for more information on these requirement, see <https://admission.universityofcalifornia.edu/admission-requirements/transfer-requirements/preparing-to-transfer/basic-requirements.html>)

These are the only requirements that L&S may make for admission as of Fall 2025. Students may still opt to take a similar General Education Transfer Credit (or GETC) package to fulfill general education requirements – however, these additional courses are no longer required for students to be eligible for transfer admission, and the new GETC suite (now called Cal-GETC) does not include a foreign-language requirement. In Spring 2024, the L&S Executive Committee voted to accept the Cal-GETC suite, but require transfer students to still fulfill the L&S foreign-language requirement either before matriculation at Berkeley or while

here. The design committee endorses this decision and wishes to underscore the importance of this full suite of courses for our transfer students.

Appendix C – Proposed Topic Breakdown for First-Year Course “Berkeley: Community and Democracy”

Topic Breakdown

Please note: these topics are by no means definitive or exhaustive; the committee imagines them ultimately determined by a faculty committee that would be charged with finalizing the course content and overseeing its implementation.

Part 1: Introduction (2 weeks)

Topics with an asterisk indicate those that could be handled through pre-recorded lectures or faculty panel discussion videos (bullet points under these have been conceived of as in-person discussion topics)

- **What is a university, and what is a public university?
 - How does Berkeley’s public mandate affect what our classrooms look like? Who is here?
- What does it mean to be part of the campus community?
 - Goal of this segment: to develop trust and respect of group; give students a sense that their voice matters
 - Develop classroom as a collaborative space – address classroom dynamics to encourage as broad participation as possible
 - Who are your instructors and whose knowledge is it anyway? Where does knowledge come from, who decides if it’s worthy, who decides what you learn? How do you learn?
 - (for instructor training: make sure to train people to help mitigate against enabling participation from students who already have skills and vocabulary that faculty have. In other words, to bring students into participation and discussion who might not feel like they already have those skills)
 - Include this explicitly in class discussion
 - Discussion of who/what current structures protect so that other structures can be made

- ****[Campus principles of community](#)** – what do the central terms “honesty, integrity, and respect for others” mean in the classroom, in interactions with each other outside of it, in research and creative work?
 - Discussion of these principles in class
 - How to be an effective student
 - How to “show up” for class, importance of class attendance
 - Finding your voice, and why that matters in the classroom and beyond:
 - both in the classroom, and as you chart your path through college
 - Developing mutual respect, reasoned argument, the importance of expressing your own thoughts, even when you are in the minority, and giving space to others to do the same; intellectual resilience
 - Integrity in your work
 - Problems of AI – why it’s not acceptable to pass off the material generated by generative AI as your own
- ****What is “liberal arts education” and why does it matter for today’s world? Why do we have a “College of Letters and Science,” what does that mean?**
 - Owning your learning, mapping your own course through the university
 - How do you decide on a major? What are the forces that might shape this (internal and external)?
 - How to find courses that engage you?

Part 2: The role of research in your education (2-3 weeks)

- ****What are the different ways knowledge is made in L&S? (panel discussion with faculty across different disciplines talking about what research in their field looks like)**
- ****How is “knowledge” made? Verified? What are the forms of exclusion that have characterized these processes, and how can they be addressed?**
 - Research processes and expectations
 - Ones that potentially exclude people and ideas
 - Ones that protect people, research integrity
- ****What is research integrity?**
 - Why is plagiarism a problem?

- Return to integrity in student work and the principles of community
 - Why is the exclusion of historically marginalized populations a problem for research?
- **Academic freedom: What is it? Why does it matter?
 - Examples? Hard cases?
 - What is tenure and how does it protect academic freedom and research integrity?

Part 3: Discussion, debate, and difference in a university (8-9 weeks)

- ** What is the role of discussion, debate, difference in research?
 - What does this look like in different disciplinary areas?
- **What is the role of discussion, debate, and difference in a university more broadly?
 - Return to campus principles of community and acts incompatible with them: threats, targeted harassment, etc.
 - What does it mean to be in community with people with whom you disagree?
- **History of the Free Speech Movement on campus
- **The First Amendment, hate speech, and other approaches to campus expression
 - **What is the history of concepts of freedom of expression, and how do those concepts look to different communities of people within the US? What is the impact of these concepts on those different communities?
 - **How have commitments to these concepts played out within the history of social movements, both within our own institution and outside of it?
 - The potential conflicts in the freedom of expression versus the freedom from discrimination, and the difficulties in adjudicating such conflicts
- **Contestation, debate, and the difference in the context of social media: trolling, doxing, disinformation, algorithms and evidence, etc.
 - Speech in the real world: doxing and other external threats to campus debate and discussion
 - How the university responds to this, and its limits in doing so

Appendix D – Quantitative Reasoning Requirement: Test-Out and Course Options

Currently, L&S offers the following mechanisms by which undergraduates may test out of their QR requirement (for more information see <https://lsadvising.berkeley.edu/quantitative-reasoning>):

Exam	Minimum Score Required to Satisfy Quantitative Reasoning
SAT Math Section on exams administered January 2016 and PRIOR	600
SAT Math Section on exams administered March 2016 and BEYOND	620
SAT Subject Test, Math Level 2	520
ACT - Math Portion	28
Advanced Placement Exams in Calculus AB or BC	3, 4, or 5
Advanced Placement Exam in Calculus BC: AB Subscore	3, 4, or 5
Advanced Placement Exam in Computer Science Principles	3, 4, or 5
Advanced Placement Exam in Statistics	3, 4, or 5

International Baccalaureate Higher Level (HL) Exam in Mathematics, Further Mathematics, Analysis and Approaches, or Applications and Interpretation	5, 6 or 7
International Baccalaureate High Level (HL) Exam in Computer Science	5, 6 or 7
GCE A-level Mathematics Exam	A, B, or C (or 1, 2, or 3)
Quantitative Reasoning exam offered by the Department of Mathematics (link is external) administered at the beginning of each semester on the Berkeley campus.	20

Students may also take one of the following Berkeley courses to fulfill the requirement (please note that some of these already provide training in predictive thinking – the committee recommends an expansion in the number of courses that do so, and information on the L&S Advising website that explains more about the specific kinds of skills different courses provide so that students may make more informed choices regarding this requirement):

Department	Course Options
Computer Science (link is external)	COMPSCI C8, 10, W10, 61A, 61B, 61C, 70
Data Science	DATA, COMPSCI, INFO or STAT C8

(link is external)	
<u>Mathematics</u> (link is external)	MATH 1A, N1A, 1B, N1B, 10A, N10A, 10B, N10B, X11, X12, 16A, N16A, 16B, N16B, 32, N32, 53, H53, N53, W53, 54, H54, N54, W54, 55, N55, 74
<u>Statistics</u> (link is external)	STAT 2, X10, C8, 20, 21, W21

[1] Phase 1 Faculty Working Group Report, p4.

<https://drive.google.com/file/d/1wIW-VunHHKehBicqwtBtWdo-BH-2d-q1/view>