

The Arts & Sciences Curriculum

**Trinity Curriculum Development Committee (TCDC)
Submitted to Arts & Sciences Council
March 7, 2024**

I. Overview of the Recommended Curriculum

The Arts & Sciences Curriculum provides a foundation that prepares students for success in college and beyond, facilitates identification of pathways through Duke, and supports student agency in the pursuit of a liberal arts education.

“Provide a world-class liberal arts education to undergraduate students.” This simple phrase begins the mission statement of Trinity College of Arts & Sciences¹. Over two years of discussions about the structure of our current and future curricula, the TCDC maintained focus on our students. How can we support student development through a curriculum that is grounded in scholarship, encourages exploration of the full range of the liberal arts, and provides students with the agency to write their own stories²?

We propose a new curriculum that better supports our core mission. It is simple and **equitable**, minimizing the need for gamification in course selection. It begins with a **first-year experience** whose structure helps students build connections and sparks their curiosity about compelling questions and ethical challenges of our times. It affirms the **value of the arts and humanities** by increasing their representation in its distribution requirements. It guides students to explore new areas of study via *Century Courses* that showcase **exceptional teaching** within every department and program. And, it builds on **fundamental values** drawn from current scholarship and from discussions with faculty colleagues and students.

The TCDC recommends that A&S Council adopt this structure for the new curriculum:

Liberal Arts

Trinity students must complete two courses in each of six categories. Up to two *Century Courses* may each fulfill two of these twelve requirements.

First-year Experience

Trinity students must complete in their first year a set of three interconnected courses that explore a topic from multiple perspectives:

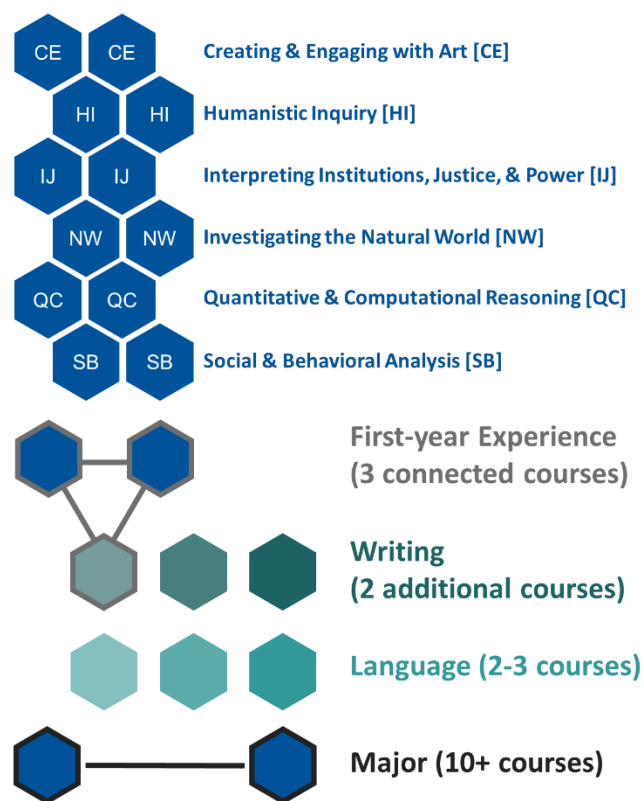
- One first-year writing course.
- Two related courses. At least one of these must be taken in the first semester, and at least one must involve small-group learning.

Writing + Language

- Trinity students must complete three writing courses, including first-year writing and at least one course after their first year.
- Trinity students must complete three courses in a single language sequence, two courses at the 300-level or higher, or one course at the 300-level or higher and two courses in another sequence.

Major

Trinity students must complete a major.



II. Our Vision: Shared values for a liberal arts curriculum

The Arts & Sciences curriculum defines the set of academic experiences that will be shared by its students. It should ensure that all students receive the core elements of a Duke liberal arts education, regardless of their background, academic path, or co-curricular activities. These elements include engagement with different disciplinary and interdisciplinary perspectives, active interaction with peers and faculty, and sustained study in at least one discipline.

Yet, a curriculum should be more than a set of requirements that students must complete along their path to graduation. It should help students chart a coherent path across their time at Duke. It should support high-impact teaching by catalyzing the energy of our faculty. It should foster curiosity and intellectual maturity, while helping students to understand the value and contribution of multi-disciplinary perspectives that address complex issues. It should encourage departments to develop outstanding courses that affirm the value of their disciplines. And, most importantly, it should encourage positive feedback loops in which the creativity of our faculty and the goals of the curriculum are mutually reinforcing – so that the Trinity undergraduate experience becomes better and better over the coming decades.

II.A. Values for the Duke Student Experience

Value #1: The curriculum supports our students as they build connections within Duke. Building connections – with other students, with faculty, and across ways of thinking and experiences – provides a firm foundation for our students’ pathways through Duke.

Connections with other students. Many of our students see their academic activities as important for building relationships with other students and forming a sense of belonging³. Such connections are also known to provide sources of resilience against uncertainty⁴ and mental health challenges⁵, particularly during the often-difficult transitions of the first year at college. Yet, building connections has value beyond just its effects on individual student success. Education should be considered not only a private good but also a *public good*. Our students should learn the value of supporting others throughout their education. This mindset would serve as an important counterweight against the continual pressures for individual accomplishment, often at the expense of others’ or collective outcomes.

Connections with Duke faculty. Building early connections with Duke faculty – and with Duke as an academic institution, more generally – will help our students navigate the complex ecosystem they will encounter at Duke. Most students come to Duke with little understanding of the larger intellectual landscape comprising our many departments, institutes, and schools. The sheer scale of Duke can be intimidating, especially for students without family connections to higher education (e.g., first-generation students). By supporting connections between students and faculty⁶, including through investment in early academic advising, we can lower barriers that may discourage our students from engaging with all that Duke offers.

Connections across ways of thinking. Our committee recognizes the synergy between the social and intellectual aspects of connection. Interactions with others who have diverse viewpoints (cf., “epistemic humility”, as discussed below) helps develop understanding of those viewpoints, a goal particularly relevant in a time of heated civil and political discourse⁷. Like the other forms of connection discussed above, we see connection across ways of thinking as *foundational* to the curriculum; it is particularly important early in a college education because it sets the stage for how students approach subsequent courses and academic pathways (e.g., by encouraging combinations of majors and courses to meet personal goals).

Connections across experiences. The curriculum is but one part of Duke life. Non-classroom-based experiences actively shape and inform students’ academic and emotional development – and contribute heavily to campus culture. The curriculum, while emphasizing the value of intellectual-based endeavors, should encourage students to engage in experiences that challenge their world views and expose them to different ways of thinking and being. Habits of mind and skills learned across a diverse curriculum should translate into students’ wanting to engage with their communities and their contexts, and to translate academic skills into real-world applications.

Value #2: The curriculum encourages curiosity. Students develop a mindset that promotes openness to novel ideas, that values understanding even in the absence of instrumental outcomes, and that supports continued learning throughout the lifetime.

Our committee seeks a curriculum that supports curiosity and serves as a bulwark against a narrowness of intellectual perspective⁸. We recognize that narrowness is driven more by societal pressures than by our students themselves. Our conversations with students revealed how much they value courses that encourage curiosity, wonder, and playful exploration⁹ – those experiences remind them of why they came to Duke. Yet, they often feel a tension between following that curiosity (i.e., seeking out new areas of study) and responding to instrumental pressures (e.g., pre-requisites for majors, grades)¹⁰, especially in the first year¹¹. Through its structure, the curriculum supports our students as they take intellectual risks, engage with classes that spark a sense of wonder, appreciate the processes of discovery that underlie ideas, and integrate serendipitous experiences into their own story¹². Our curriculum prepares our students not only for a first job but for a lifetime of learning¹³.

Value #3. The curriculum encourages humility. Students recognize the limitations of their own knowledge, while also developing the skills necessary for engaging with others’ viewpoints in a constructive, respectful manner.

Our interim report advanced the principle of epistemic humility, which entails recognizing the limitations of one’s own knowledge, engaging with others’ viewpoints, and considering multiple disciplinary perspectives. This principle, perhaps more than any other, resonated with Trinity faculty in their responses^{14,15,16}.

Over the past year, we have repeatedly returned to the concept of “humility” when thinking through our goals for our students. It recurred when we thought about the experiences we desire for first-year students as they join a large and diverse community. We

want them to develop skills for active listening, for conveying their own ideas while remaining respectful of others', for managing difficult conversations, and for dealing with moments of personal disequilibrium. All of those skills rest on a foundation of humility that considers and values perspectives beyond one's own.

We recognize that humility may seem inconsistent with the usual goals of a world-class university – and even more out-of-place at an institution described by one of its former Presidents as “outrageously ambitious.”¹⁷ Yet, we do not see the tension between humility and ambition as a problem. As they leave Duke, our students will step out into a diverse, interconnected world – one in which humility allows ambition to flourish. Moreover, we see humility as a shared value for the larger Duke community, including its faculty. We should model it in our own classes by presenting a variety of perspectives and always challenging our own assumptions. We should identify ways of connecting with colleagues from other disciplines, especially when those disciplines view problems through very different lenses. And, when constructing a curriculum, we should not assume that we can predict exactly which topics and issues will remain relevant throughout its entire span (cf., the 25+ years of Curriculum 2000). We should recognize, instead, that the world will change in unexpected ways – and we should be prepared to learn from those changes.

II.B. Principles for the Structure of a Curriculum

While discussing how to implement our values within a new structure for the Arts & Sciences curriculum, our committee often returned to a few key principles that helped us think through tensions between alternative plans. We outline those principles here to provide context for the specific recommendations described in the following sections.

We prioritize equity in our curricular requirements, so that all students can navigate pathways through Duke regardless of their starting point. Duke values diversity and sees the recruitment, matriculation, and success of students from disparate backgrounds and experiences as central to thriving research, educational, and campus communities. Yet, even if students will not have the same experiences before and while at Duke, we can still prioritize equity in their experiences. We should adopt curricular structures that equally reward the choices and pathways of all students, regardless of whether they have resource advantages, connections, or prior knowledge of Duke (or of higher education, more generally). We should also recognize that no student is so advanced that they cannot learn more; students at any level can benefit from continuing engagement with Duke faculty and other students.

We encourage outstanding teaching and educational experiences. A new curriculum should connect students to high-impact teaching, should incentivize departments and programs to generate outstanding experiences for students, and should provide opportunities for innovation. Simply put, our curriculum will be successful if it supports our faculty as they provide a world-class education¹⁸. Some support could come from minimization of curricular complexity; faculty and students alike described Curriculum 2000 as actually placing constraints or obstacles (e.g., the need to seek out multiple codes) in the path of learning¹⁹. A new

curriculum will also support teaching more directly through curricular structures that reward outstanding, innovative courses.

We trust our faculty colleagues to meet our curricular aspirations. The TCDC resonated with exhortations to “trust our faculty”²⁰. This echoes our shared value of humility; while our committee can recommend an overall structure for the curriculum, the implementation of that recommendation will depend on the collective expertise and energy of our entire faculty. Thus, when considering how each requirement would be implemented, we allocated primary responsibility to departments and our faculty colleagues. An example can be seen in our model for Century Courses, whose content and format should be determined by each department in order to meet their own goals for their students. We prioritize the autonomy of our faculty in all of our proposed requirements.

We embed flexibility into the curriculum, recognizing that a changing world will require an adaptable curriculum. The faculty architects of Curriculum 2000 could not have anticipated the events that sparked remarkable changes over the past 25 years: the war on terrorism, the onset and ubiquity of social media, gerrymandering and polarization of our political institutions, the ascent of generative AI, and many others²¹. For our new curriculum to provide Duke students with “a sense of place and time,” as discussed in our interim report, it will need to allow our faculty to respond to events, issues, and ideas as they arise – and to connect those events to longer historical trajectories. Thus, where we have specified specific curricular structures and values for courses (e.g., in the first-year experience), we do not specify the topics those courses should cover.

We recognize that a curriculum structure should convey its values in a simple, understandable way. The Arts & Sciences curriculum embodies what Duke is and where it wants to go. As such, its success will depend on the extent to which Duke students and faculty understand, believe in, and embrace its core tenets. We should develop a curriculum whose principles and motivations are internalized by students and faculty – and whose structure can be readily understood and described.

III. Distribution Requirements: Supporting a Liberal Arts Education

Trinity students must complete two courses in each of six categories for a total of twelve required courses. Up to two Century Courses may each fulfill two out of these twelve requirements, either in the same category or in different categories. Additional Century Courses fulfill only one requirement.

III.A. Values for Distribution Requirements

A liberal arts education involves exposure to diverse topics, research methods, and worldviews. It fosters an openness of perspective – an *epistemic humility* – as students appreciate how different forms of knowledge production contribute to one’s understanding of the world and its people²². It affirms that disciplines across the full span of the academy all have value for a student’s intellectual development and personal growth²³. Within a university curriculum, the foundational elements of a liberal arts education are its distribution requirements.

Our committee sought to ground the distribution requirements in our core values. We sought a structure that would allow students to complete their requirements in an **equitable** fashion that minimizes gamification²⁴ and avoids privileging students whose pre-collegiate privilege enables more efficient pathways. We wanted the distribution requirements to preserve **student agency**. They should be extensive enough to ensure breadth beyond the major but not so extensive that they limit students’ academic pathways^{25,26}. We supported an expanded **commitment to the Arts and Humanities**, recognizing their central contributions to a liberal arts education. We wanted to incentivize **outstanding teaching**. Departments and faculty should be supported as they develop innovative courses that promote a liberal arts education for all Trinity students, regardless of their major or career goals²⁷. And, finally, we value curricular **simplicity**; advisors, faculty and students should be able to explain the core curriculum and should see their interests and values reflected within it.

III.B. Recommended Requirement: Breadth across the Liberal Arts

Distribution requirements should span areas of knowledge within a simplified structure. Our committee recommends a distribution requirement that organizes courses into six primary categories. Distribution categories have broad links to academic divisions and disciplines, but category assignments should be at the course level, with each course receiving no more than two category codes. This requirement includes separate categories for the arts and for the humanities, as a measure to intentionally increase participation in and representation of the arts and humanities within the new curriculum compared to Curriculum 2000.

Students should complete two courses per category. Our committee spent considerable time discussing the tradeoffs between (a) a larger requirement that provides greater depth of exposure in each area and (b) a smaller requirement that maximizes students’ ability to pursue majors, minors, and certificates. We concluded that the right balance could be struck through a distribution requirement involving 10-12 courses, noting that students typically complete 4-6 of these courses via their major and its co-requisites. The recommended scope roughly matches that of the distribution requirements of Curriculum 2000, which usually requires students to complete between 10 and 14 non-Language/non-Writing courses.

Standard courses may receive up to two category codes, but each course counts only once toward the distribution requirements. Consistent with our commitment to minimizing the incentives for gamification of pathways through Duke, we recommend that courses can receive up to two category codes but may count only once toward distribution requirements. This maintains the policy for AOK codes in Curriculum 2000. To support students as their interests evolve, which courses count for which requirements may change at any point until graduation.

Up to two *Century Courses* (see Section III.D below) may each fulfill two of the twelve distribution requirements, either in the same category or in different categories. To encourage the development of outstanding courses that engage our students in the liberal arts, our committee developed the *Century Course* model, as described in more detail below. We recommend that the Trinity administration support those courses and the departments that offer them with resources, since they will become highly visible components of a new curriculum. Because we also want Century Courses to be optional and non-restrictive, we have designed the curriculum so that students may still fulfill any curricular requirement with two courses in that area.

Codes should be assigned at the course level and should be determined by a committee of Trinity faculty. We recommend that responsibility for the assignment of distribution codes should remain with the Courses Committee, which would evaluate coding on a course-by-course basis. However, we note that the simplification of curricular categories to areas of knowledge will, in turn, simplify that committee's task. For many courses, there will be straightforward default codes based on the home department and/or content material, and those codes are more likely to remain appropriate even as courses evolve or instructors change.^{28,29}

III.C. Recommendations for Distribution Categories

Our committee recommends that Trinity distribution requirements be organized around a set of six categories that span the breadth of a liberal arts education and that collectively include all of our current courses, departments, and programs. We present them in alphabetical order to emphasize their parity within a liberal arts education.

We recognize and emphasize that distribution categories always have fuzzy boundaries, as evident in the current reality that more than 4000 current Trinity courses carry two AOK codes. **Our committee recognized that there will inevitably be important disciplinary themes that do not fit neatly into one of the defined categories. We expect that the content of many courses will span two categories, and the full set of courses offered by most departments and programs may span more than two categories.** Nor could any set of categories perfectly distinguish all of the breadth of academic experiences available in our courses; on the contrary, there will be some values (e.g., respect for diversity of people and perspectives, willingness to challenge established viewpoints) that should be common features of courses in every code. In light of this dynamism, this set of distribution categories is designed not to constrain how our faculty construct courses but to **support and guide students in the purposeful pursuit of a broad liberal arts education.**

Distribution Categories within the Arts & Sciences Curriculum

CE: Creating and Engaging with Art

Courses in this area involve the production, performance, and/or experience of artistic creativity. Students develop cognitive, affective, and corporeal capacities through the process and production of knowledge via the creative arts; explore through practice the aesthetic forms that arise across cultures and communities; and formulate insights about human creativity by making art and reflecting on how values and meanings are expressed through arts practice.

HI: Humanistic Inquiry

Courses in this area interpret literary and aesthetic expressions that span geographical locations, historical periods, and cultures. Students analyze works and practices; engage with philosophies, religions, and intellectual traditions; investigate communication practices and media; and gain skills in research methods associated with humanistic inquiry.

IJ: Interpreting Institutions, Justice, and Power

Courses in this area investigate the events, ideas, and practices that shape human societies. Students examine institutions, ethical and cultural traditions, religious systems, and the historical and current events that shape these large-scale features of societies; examine the structures that underlie inequality, power, and societal change; and apply a diverse set of qualitative and quantitative scholarly practices.

NW: Investigating the Natural World

Courses in this area investigate and develop models for physical and biological processes. Students develop foundational knowledge about the causes of natural phenomena; explore the structure and temporal evolution of physical and biological systems; apply experimental, analytical, and computational methods; and learn the power and limits of scientific explanations.

QC: Quantitative and Computational Reasoning

Courses in this area involve mathematical reasoning, statistical analysis, and computational methods. Students engage in formal, inductive, and deductive reasoning; apply statistical modeling and inference methods; learn tools and techniques for data analysis; develop algorithms to solve problems; design, develop, and analyze computational systems; and interpret claims based on computational models and simulations.

SB: Social and Behavioral Analysis

Courses in this area examine human individual behaviors, group dynamics, and societies. Students explore thought processes, decisions, beliefs, emotions, and motivations; examine how individuals develop over the life course and in response to experiences; and study the development and expression of identities, the establishment of social structures and political institutions, and the dynamics of economic systems.

III.D. Recommended Requirement: Century Courses

Our committee recommends the creation of Century Courses, which students may use to fulfill two distribution requirements using a single course. A student may use this option for at most two Century Courses.

We adopt a simple mantra for thinking about Century Courses: *“If you could only take one course in [TOPIC] in your life, this is the course our faculty would want you to take.”* They are intended to provide students with high-quality introductions to fundamental concepts and ways of thinking within academic disciplines. As emphasized below, different Century Courses may adopt very different formats: discussion-oriented seminars, combinations of lecture and practice, large lectures with accompanying small-group learning, etc. Regardless of format, a Century Course should reflect its department/program’s vision for outstanding undergraduate education.

We advance the provisional name of “Century Courses” for two reasons: (1) these courses would be positioned early in the curriculum by carrying the distinctive “100” number (e.g., NEUROSCI 100) and (2) their introduction would be coincident with Duke’s centennial and thus signal our continuing institutional commitment to outstanding educational experiences.

Century Courses follow a set of rules summarized here and described in more detail below:

- Century Courses will be designated by departments and programs, who may each optionally offer one Century Course in each of their major(s) each semester. If a department or program supports a minor but not a major, then it may offer a Century Course for that minor.
- The content and format of each Century Course should be determined by the offering unit, according to its own goals for Duke students.
- Century Courses receive two codes: either two of the same code or two different codes³⁰. For up to two Century Courses, a student may count both codes toward distribution requirements. Century Courses taken in excess of two fulfill only one requirement
- Century Courses should be accessible to all Trinity students. They should have no prerequisites, whether formal or informal.
- Century Courses cannot be part of first-year Constellations and cannot carry non-distributional codes (Language or Writing).
- Century Courses should be overseen by an A&S-Council-authorized committee.

Century Courses will be designated by departments and programs, who may each optionally offer one Century Course in each of their major(s) each semester. We restrict Century Courses to one per major both to maintain a high standard of quality across all such courses and to maximize equity; that is, the list of Century Courses will include both large and small majors with equal pride of place. Moreover, departments may choose not to offer Century Courses – either at all or in a given semester – depending on their instructional priorities. We note that two programs in Arts & Sciences (Education and Writing) offer minors but not majors, and we recommend that those programs also be eligible to offer Century Courses.

Our committee urges attention to implementation issues as the Century Course model develops. For units with multiple majors, minors, and/or areas of concentration, we recommend that all faculty participate in the visioning, sequencing, and proposal of Century courses, both to ensure quality and depth of student engagement and parity of opportunity for faculty with

diverse areas of expertise. The Trinity administration should support our departments and programs not only to develop Century Courses (e.g., labor associated with course creation/modification) but also to ensure outstanding experiences for our students (e.g., activities, laboratory/discussion sections). Finally, we note that there may be future opportunities to broaden the space of Century Courses to include multi-department/unit collaborations (e.g., between a department and an institute).

The content and format of each Century Course should be determined by the offering unit, according to its own goals for Duke students. We expect that some departments will offer traditional large lecture courses taught by an amazing instructor, multiple sections of the same small discussion-oriented seminar, team-taught courses, or any of many other formats. The format, content, and instructor can vary from semester to semester within a department; that is, a department may have more than one Century Course in its portfolio of courses, although only one of those courses may be offered in a given semester. We encourage departments to develop Century Courses that reflect not only remarkable content but also center remarkable teaching. Each department is entrusted to determine how they can best achieve these goals (e.g., team-teaching, a dedicated instructor, rotating instructors, etc.). We recommend that Century Courses organized in a large-lecture format also include elements of small-group learning (e.g., discussion sections), as is often the current practice. Departments may also decide the grading format (i.e., traditional grading, mandatory S/U, etc.)³¹.

Following the submission of our draft report, our committee listened to departments as they considered how they might construct Century Courses. Several departments shared examples that we relay with their permission. We emphasize that these examples are only provisional; that is, they reflect initial brainstorming within a department and will surely change or evolve following more comprehensive discussions.

- **Theater Studies:** A seminar-sized Century Course where students spend one-half their time learning about theater history and the other half on their feet performing historically significant monologues; rehearsing choral movement; and designing lights, sets, and costumes while understanding historically determined constraints. Taught by a faculty team (one historian and one practitioner) this course would provide a grounding in the discipline for both majors and non-majors, and would bring together faculty across disciplinary boundaries.
- **Economics:** A Century Course in which students are introduced to the broad landscape of the discipline of economics as they investigate the most salient issues of our time through the lens of economics and as they explore how economics shows up in unexpected real-life places. Along this journey, students come to appreciate the ways in which data is used in economics to understand the world around us as well as the limits of economics and the promise of cross-disciplinary collaboration. Throughout the course, a variety of faculty join in conversation with the class, external visitors (often alumni) visit to provide real world perspectives, and students gather in discussion sections to explore issues more deeply in small groups.
- **Classical Studies:** Insurrectionists holding flags with the ancient Greek phrase ΜΟΛΩΝ ΛΑΒΕ stormed the US Capitol Building. A viral TikTok trend revealed that men think about the Roman Empire surprisingly often. Why do ancient Greece and Rome keep appearing in popular media and politics? How should students and scholars respond? This seminar/small-lecture Century Course challenges students to rethink how the past is used and abused in the present. Reading essays in critical classical reception studies and considering case studies from popular culture

and politics, students ask how the appropriation, interpretation, and revision of Greek and Roman antiquity shape our understanding of the past and the present.

- **Computer Science:** This Century Course introduces students to the interdisciplinary field of Computer Science through the principles and practice of software development using Python and software tools including AI and Large Language Models. Students solve problems in many domains using data to design, scale, and test software solutions with a focus on both technical and ethical understanding of computer science and the software development process. Offered S/U only, this course combines lectures with discussion sections that allow students to practice concepts and techniques covered in lecture. No previous programming experience required.

Century Courses receive two codes: either two of the same code or two different codes. To

illustrate these rules, consider a student who takes two Century Courses: one coded [NW, NW] and the other coded [HI, IJ], as illustrated in Figure 1.

The former course fulfills that student's requirement for the NW category, while the latter course partially fulfills two of the other categories – each of which would need one additional course. Note that courses that do not receive codes in our distribution requirements cannot serve as Century Courses.

For up to two Century Courses, a student may count both codes toward distribution requirements.

Students may take additional Century Courses for credit, but only two may count for two distribution requirements.

Additional Century Courses would follow the same rules as any other courses (i.e., they count once toward distribution requirements).

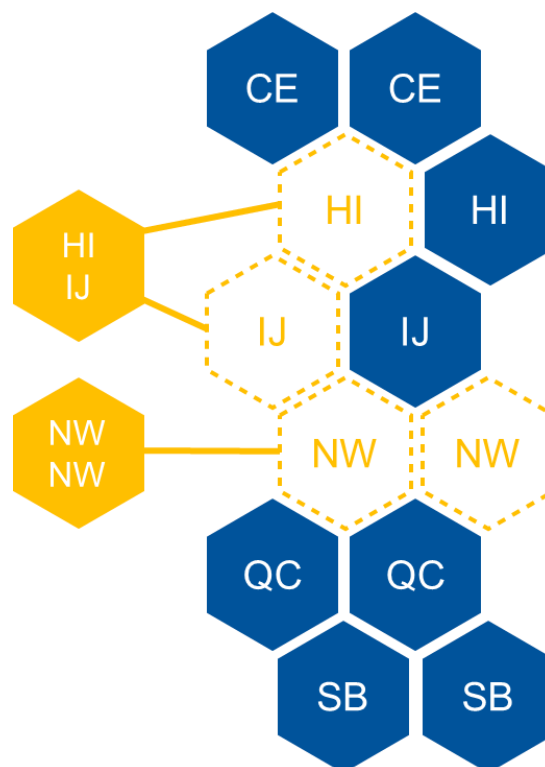


Figure 1. Examples of Century Course coding.

Century Courses should be accessible to all undergraduate students at Duke. That is, they may not have prerequisites or unofficial expectations about students' background knowledge. Importantly, they should not be intended primarily as preparation for continuing in a major; they should be of value to non-majors who do not take any other courses in that area. Departments can decide whether a given Century Course could count for their major, just as they can now for any of the courses they offer. We recognize that some departments see value in offering Century Courses that have prerequisites commonly fulfilled by most but not all Duke students as part of their high school curriculum (e.g., a mathematics prerequisite for courses in the sciences). If at some point this rule is relaxed to allow courses that have some minimal prerequisite(s), our committee recommends that those departments must also regularly offer other Century Courses without prerequisites.

Century Courses cannot be part of first-year Constellations and cannot carry non-distributional codes (Language or Writing). These different curricular elements support distinct values that are each important for our students. For example, the Century Courses provide in-depth introductions to fundamental ideas within disciplines, whereas the Constellations build connections across disciplines. Moreover, separating Century Courses from other requirements promotes our goal of minimizing gamification by both students and faculty.

Century Courses should be overseen by an A&S-Council-authorized committee. The primary purpose of this committee should be supporting our faculty and departments to offer outstanding courses, rather than introducing a layer of administrative gatekeeping. As part of the implementation process, the Council should determine whether this responsibility should be within the province of a revised Courses committee or should be a separate committee. We urge the committee to work with departments to identify best practices for envisioning, implementing, and supporting these courses. This committee should also collaborate with the Office of Undergraduate Assessment to review the impact of these courses on students' trajectories through Duke.

III.E. Comparison to the Matrix Model of Curriculum 2000

Curriculum 2000 adopts a matrix model whereby nearly all courses are coded on two cross-cutting factors (i.e., AOKs and MOIs). Curriculum 2000 also permits double coding for both factors and double counting for one factor (MOIs). Matrix models for distribution requirements remain rare within higher education; within the set of 49 other universities' curricula we examined, only one other school used a matrix model.

After debating the advantages and challenges of a matrix model, our committee judged **that distribution requirements organized around areas of knowledge better supported our curricular values.** We concluded that Duke's current matrix model encourages gamification by both students and faculty; students naturally seek out courses that count toward more curricular codes, and faculty are incentivized to request as many codes as possible for their courses. This leads to inherent inequities across courses and students; for example, it implies that a student will get the same depth of education by taking one class that fulfills three codes as they would if they took three classes each focused on a single code.

The complexity of Curriculum 2000 also means that many students and faculty have difficulty explaining its requirements and their purpose. Input from students – both as part of ad hoc conversations and from focus groups – revealed that many did not understand what the Curriculum 2000 distribution categories represented or how they fit into a liberal arts education³². In one evocative example, a student relayed to a TCDC member their frustration with not being able to find courses in one of the distribution categories; however, the problem arose because they only thought of the category by its abbreviation (e.g., "ALP") and did not know the words that made up that abbreviation.

The recommended Arts & Sciences Curriculum simplifies fulfillment of distribution requirements. Shown below (Figure 2) are sample pathways through which students could complete the distribution requirements in the new curriculum. A student could complete the requirements with a minimum of 10 courses (i.e., by taking two Century Courses) or with a maximum of 12 courses. Critically, because the recommended curriculum contains only a single set of categories – not a matrix combining two categories – it minimizes the need for gamification.

- Consider a first-year student who begins taking courses to fulfill distribution requirements. Any class they take will contribute similarly to their requirements (i.e., every class counts once) – and so they can select courses providing the greatest personal value rather than carrying the most codes.
- Consider a fourth-year student who needs one class (e.g., a NW code) to fulfill their distribution requirements. They may choose that class from a very wide variety of courses that have that code (i.e., more than one-sixth of all Trinity courses). That flexibility differs dramatically from what students experience in Curriculum 2000, where the final courses selected often involve combinations of codes; a student who could fulfill their final requirements with a NS+EI coded course must choose from a much smaller subset of courses (i.e., about 3% of all NS-coded classes³³).

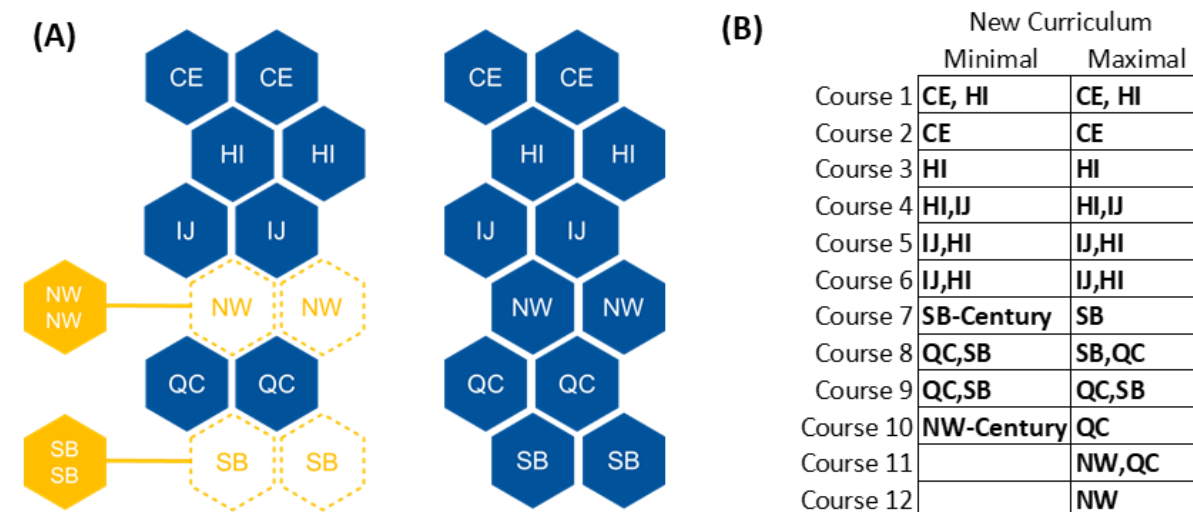


Figure 2. Fulfilling distribution requirements in the recommended curriculum (A, sample sets of courses; B, courses listed). Students complete the requirements with a minimum of 10 courses (e.g., by taking two Century Courses) and with a maximum of 12 courses.

Curriculum 2000 encourages inequities in how students fulfill distribution requirements.

Because courses may receive multiple AOK and MOI codes, some courses contribute more toward distribution requirements than others. Figure 3A highlights examples of courses that count toward 3, 4, or 5 codes. Multi-coded courses are hardly rare at Duke; for example, there are ~800 courses with the combination of ALP, CCI, and EI. Other courses carry only 1 or 2 courses, as shown in the examples in Figure 3B. This wide disparity in the number of codes assigned to courses – combined with the possibility of double-counting MOI codes – encourages **gamification of the course selection process**. Shown in Figure 3C are two sample sequences that fulfill the Curriculum 2000 requirements; in every case, the student took a course that fulfilled one or more of their remaining requirements. The minimal set requires only 10 courses, whereas the maximal set requires 14 courses. Such incentives toward gamification are a necessary consequence of matrix structures like Curriculum 2000:

- Consider a first-year student who begins taking courses to fulfill distribution requirements. They know that they can fulfill those requirements more efficiently by taking multi-coded courses, and thus they may preferentially seek out courses that count for more requirements, especially MOI requirements, rather than courses that best match their interests. This student gamifies their course selection to minimize their total number of future courses taken.
- Consider a fourth-year student who has completed most of their distribution requirements, lacking only one CZ, one EI, and one STS code. They are now incentivized to find a single course that fulfills all of those requirements, rather than selecting multiple courses that would provide depth in each of those areas, independently. This student will choose their course from a very small fraction of available courses; currently, only about 2% of all CZ courses also provide the EI and STS codes. As students fulfill more and more of their requirements in Curriculum 2000, their course options become increasingly constrained.

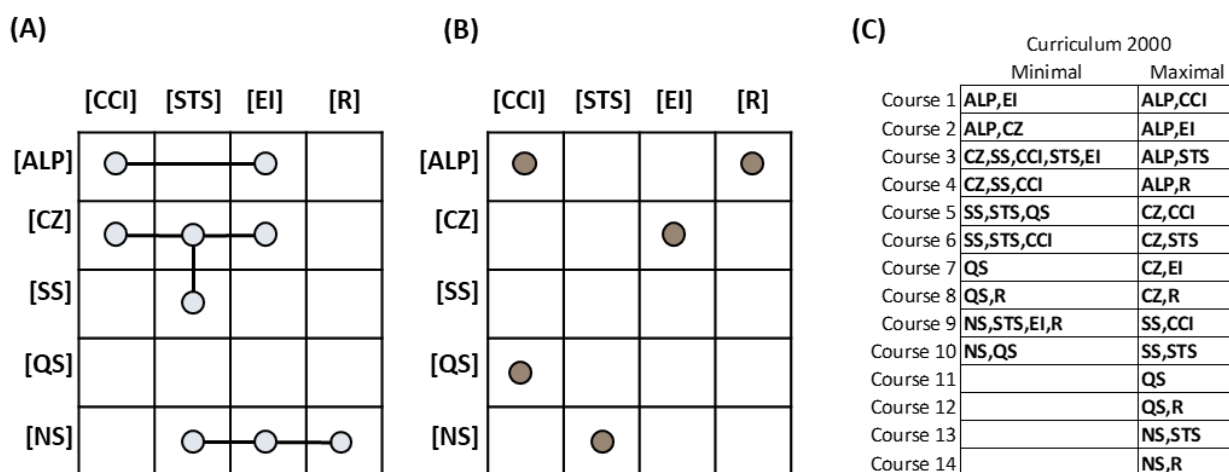


Figure 3. Fulfilling distribution requirements in Curriculum 2000. (A) Some courses fulfill many distribution requirements; shown are three hypothetical courses that each fulfill 3-5 requirements. (B) Other courses fulfill fewer distribution requirements; shown are courses that fulfill 1 AOK and 1 MOI. (C) The total number of courses needed to fulfill the Curriculum 2000 requirements varies from a minimum of 10 courses if a student perfectly optimizes their course selections to a maximum of 14 (or more) courses if not optimized.

III.F. Alternative Models Considered

Skill- / MOI-based models. Across other institutions, models that organize distribution requirements primarily around skills (cf. Curriculum 2000's MOIs) are relatively rare; in fact, distribution requirements described in skill-based terms risk becoming isomorphic with models based on areas of knowledge (i.e., courses associated with one skill are predominantly in one area of knowledge). Our committee judged MOI-/skill-based models to be inconsistent with the fundamental principles of a liberal arts education because they permit students to obtain those skills through a relatively narrow set of courses (e.g., within a single major). Conversely, our committee remains unwilling to reduce a Duke education to the development of skills; appreciating the breadth of knowledge preservation and production at Duke should remain the core of our liberal arts education.

Inclusion of additional MOI codes. Curriculum 2000 includes four MOI codes that are eliminated in our recommended new curriculum: CCI, EI, R, and STS. As noted above, our committee spent considerable time considering the tradeoffs between including more codes and maintaining a simpler, more manageable set of requirements. Independent of the value of each code, committee members concluded that the inclusion of additional codes would (A) increase the overall complexity of the curriculum, (B) increase the administrative burden associated with code establishment, (C) push students more toward gamification in their course selection, and (D) incentivize faculty to assign more and more codes to their courses, which would in turn weaken the fidelity of the codes themselves. Our committee also considered issues specific to each of those MOI codes. Our concerns are based largely on analyses of our course offerings and student course selection:

- **Cross-Cultural Inquiry:** This code overlaps considerably with AOK codes. In practice, Duke students tend to take more CCI-coded courses than required. The change in AOK categories proposed in the new curriculum also increases the proportion of the distribution requirements associated with courses in the arts, humanities, and interpretive social sciences.
- **Science, Technology, and Society:** This code and its topic no longer require a curricular requirement to drive students to their associated courses. Most Duke students take more STS courses than required; for example, graduates from 2016-2021 completed an average of 6 STS-coded courses.
- **Research:** Our committee debated the virtue of undergraduate exposure to research and the challenge of ensuring that exposure through mandatory codes. We considered how a dedicated Research code, perhaps more than any other, canvasses an impossibly broad range of student experiences, from low-effort consideration of others' research to development of research skills to mentored research written as a senior thesis. Irrespective of the current requirement, students take a large number of R-coded courses – more than 5 on average, for 2012-2021 graduates – indicating that the code is not itself necessary for driving student enrollment in research-focused courses.
- **Ethical Inquiry:** Our recommended curriculum eliminates the two-course EI requirement, while adding the expectation that students take a first-year Constellation

that includes consideration of ethical issues. We examined data about student course enrollments to get a sense of whether this change requirement would have significant impact. Institutional data reveal that Duke students (2016-2021 graduates) take an average of 4.34 EI-coded courses (and this number was consistent around 4 or higher, regardless of major). This provides strong evidence that students matriculating into the new curriculum will take more courses with ethical content than specified by the current two-course requirement, especially considering that ethics will be embedded in the first-year experience.

Different numbers of area categories (e.g., lower vs. higher-specificity). We recommend a model with 6 distribution categories. That number falls near the center of the set of 48 university curricula we surveyed; those curricula varied dramatically in levels of structural specificity. Some low-specificity models required students to take courses in only 3 categories (e.g., Arts/Humanities, Social Sciences, and Natural Sciences), while some high-specificity models require students to take courses in each of 8-10 narrower categories.

- **Concerns with low-specificity models (e.g., 3 areas).** The committee discussed the advantages and disadvantages of adopting a very simple low-specificity distribution model (e.g., requiring each student to take three classes in each of the three traditional A&S divisions). We rejected that model because of three primary concerns. First, such low-specificity models essentially allow students to opt out of broad areas of a liberal arts education; for example, a student could complete a “Natural Sciences” requirement without ever taking a course with a quantitative focus, or could complete an “Arts and Humanities” component without ever taking a single course in the Humanities. Second, these models undermine the value of interdisciplinary courses by discouraging double-coding (i.e., since such courses would effectively count for two-thirds of the breadth of liberal arts education), and our committee recognizes that interdisciplinary courses are a hallmark of Duke’s undergraduate programs. Third, low-specificity models would allow some students to complete nearly all distribution requirements within their major, especially given the many majors at Duke that span two A&S divisions.
- **Concerns with high-specificity models (e.g., 8-10 areas).** The committee also considered variations of high-specificity models, rejecting those options because of two key concerns. Most importantly, essentially all high-specificity models end up requiring students to take one course in each area – which not only eliminates the value of depth in a secondary area but also reinforces the perspective that students should search for the single lowest-effort, easiest-graded course in each area outside of their major. We further noted that the inclusion of additional areas increases the overall complexity of the curriculum, especially if some of the areas correspond to academic disciplines/divisions and other areas are intended to be cross-cutting (cf. MOIs in Curriculum 2000).

III.G. Implementation and Assessment Recommendations

We recommend that Arts & Sciences council delegate oversight of distributional requirements to the **Trinity Courses Committee**. As is the practice for Curriculum 2000, that committee would take primary responsibility for assigning distribution codes to courses. After the initial reassignment of existing courses, most of whose AOK codes would map cleanly to the new categories, we anticipate that the simplified structure for course coding would reduce the administrative burden on that committee because most courses would have straightforward default code(s) based on their major/program of origin. We also anticipate that course codes would be less likely to need re-evaluation following changes in course content and instructors. Moreover, we note that the proposed changes in distribution codes would likely have minimal effect on Pratt students, who must take a set of courses in the humanities and social sciences as part of the ABET accreditation for their degrees. The new set of categories proposed here would be fully compatible with ABET requirements.

We also envision that the Courses Committee should have a role in oversight of the Century Courses. Because primary responsibility for defining and implementing Century courses remains with the offering department, the key responsibilities for faculty governance should not be evaluative but supportive: helping departments present the best courses and helping the Trinity administration support those courses. For discussions of the Century Courses, the committee should include ex officio representation from Trinity leadership as well as the Office of Assessment. Finally, the committee sees the Century Course model as a natural target for new investments in our core mission of undergraduate teaching (e.g., attracting philanthropy that more typically goes to new programs, not core teaching). Conversations between Trinity faculty and leadership will be critical for making the case for those much-needed investments in course design, implementation, and evaluation.

We recognize that coding courses only by six distribution categories gives an incomplete picture of the fullness of students' academic paths, and we believe that a richer characterization of the scope of their academic experiences could be useful for assessing how well the curriculum is meeting its goals. Thus, we recommend a robust **system for tracking course offerings and student enrollments using information beyond the course codes themselves** through a modification of the course submission process. Specifically, when a faculty member submits their new course for evaluation by the Courses Committee, that submission form should include questions about whether the course content includes significant engagement with each of a set of cross-cutting activities ("ethical inquiry," "scientific method," "critical reading," etc.) or topics ("climate change," "anti-racism," "impacts of AI," etc.). The committee charged with implementation and assessment of the new curriculum should identify an initial set of these additional descriptors and then update that set annually based on faculty input. Collection of non-code data about course offerings and the sets of courses taken by individual students will provide information useful for future refinements of the curriculum.

IV. *Constellations*: Structuring the First-Year Experience

Trinity students must complete in their first year a set of three interconnected courses that explore a topic from multiple perspectives. These include one first-year writing course and two other courses. For the non-first-year-writing courses, at least one must be taken in the first semester and at least one must involve small-group learning.

IV.A. Values for the First-Year Experience

Our goals for the first-year experience follow from our fundamental curricular values, particularly the importance of building **connections**^{34,35}. We want students to build connections with each other, with Duke faculty, and across different ways of thinking – these goals mirror those expressed by Duke students³⁶. By ensuring that every student has a cohort-based experience in their first year, the curriculum provides students with increased opportunity for repeated interactions with other students (and faculty). Early, meaningful connections with other community members have a powerful protective effect for students' mental health³⁷. Moreover, our faculty appreciate the value of “bridge classes”³⁸ that connect nominally disparate areas³⁹. Such classes fit well with the Duke emphasis on inter-/cross-disciplinarity and often spark research collaborations that extend beyond the classroom.

We also see the first-year of college as a critical time for encouraging **curiosity**. Our students enter Duke with an intrinsic motivation to learn, but we know that extrinsic motivators (e.g., grades, career advancement) can undermine intrinsic motivation⁴⁰. Exceptional experiences in the first year can reinforce students' initial intrinsic motivation to learn, helping our students become excited about both their current classes and the opportunities awaiting them over the coming years. Moreover, a curriculum that engages first-year students in courses that spark curiosity will have continuing benefits, as students both get more out of their liberal arts requirements and better appreciate links between their major and other areas of study.

Finally, an expanded first-year requirement will promote **epistemic humility**, as students confront a topic from multiple perspectives. We see this value as particularly important for the high-achieving students that Duke attracts; these students often know quite a lot about our world, but may not yet recognize the limitations of their knowledge or the narrowness of their perspective. We want our students to grapple with systemic problems of the day – gaining a **sense of place and time**, as articulated in our interim report⁴¹ – but also to recognize that those complex problems will require similarly complex, multidisciplinary solutions.

IV.B. Recommended Requirement: Duke *Constellations*

We adopt the name of “Constellations” to describe the first-year experience. This name is provisional, given that the final name (if any) for the first-year experience should be determined by the faculty committee tasked with its implementation.

This name draws inspiration from astronomical constellations, which reflect our ancestors’ attempts to organize and draw meaning from their night sky. Like their astronomical counterparts, Constellations will vary in the number and composition of their elements. Some will involve a large set of course options, others will have a smaller set of options (e.g., a FOCUS cluster), and some will include large tent-pole courses (e.g., a University Course) alongside smaller seminars. The name Constellations is consistent with our core values: constellations connect their elements while evoking both wonder and humility as one marvels at a universe larger than oneself.

Expectations for *Constellations* courses

Each Constellation should include a set of courses that explore a common topic from multiple perspectives. Each Constellation should be organized around a central theme (e.g., “Climate Change”, “Depolarizing Politics”) that examines some systemic issue through diverse disciplinary lenses. The courses should include **exposure to foundational knowledge** (e.g., learning physical principles associated with anthropogenic climate change), **examination of the societal impact** of the topic upon human experience (e.g., examining differential impacts upon different communities), and **opportunities for students to discuss ethical challenges** (e.g., effects of emissions caps upon developing economies). These elements need not be equally represented in every Constellations class, but should be integrated into the Constellation so that every student encounters these features.

Constellation topics should be flexibly determined, changing periodically according to institutional priorities and faculty interests. We recommend that A&S adopt a flexible approach to identifying themes for the first-year experience. Some themes may be identified by Trinity faculty and leadership as particularly timely and/or in line with institutional priorities; for example, University Courses provide natural foundations around which Constellations can be built. However, other themes might organically arise out of combinations of faculty interests, as when several faculty become excited about a topic that spans their diverse disciplines and thus they decide to connect their courses for first-year students. We recommend that A&S establish a procedure for regular review of potential new Constellations, with the goal of approving them for a fixed period of time (e.g., three years, renewable).

Constellations may combine different course formats, provided that they meet the core values for the first-year experience. We recognize that no single format will be optimal for every potential Constellation; different topics might each be best matched to different formats. We recommend only two constraints. First, **students must take at least one non-first-year-writing course that involves a small-group learning experience** via active, individual participation in course activities. In most cases, such a course would be a discussion-oriented seminar, but it could also be a course that involves laboratory-based design projects,

experiential components, or any other small-group format that meets our curricular goals.

Second, at least **one non-first-year-writing course must be taken in the fall semester**.

Constellations may be structured to have multiple courses in the fall semester – or even all of their courses in the fall (cf., FOCUS clusters) – but they may not involve only spring courses. We recommend these two constraints because of the considerable research revealing the importance of building connections among students (and between students and faculty) in the first semester⁴². Potential formats for Constellations could include, but are not limited to:

- **University course followed by seminars.** Students take a University course in the fall, and then select from a set of related seminars and writing courses in the spring.
- **A FOCUS cluster.** In their Fall semester, students take two seminar courses within a larger theme, while also participating in experiential activities that build connections among students and residing within a living/learning community. A writing course connects to the overall theme of the cluster; it may be taken in either semester.
- **Two related seminars plus a first-year writing seminar.** Students take two seminar courses (e.g., one each semester) that explore a single topic from different disciplinary perspectives, along with a writing course connected to the overall theme of the Constellation.
- **Two seminar courses (one of which is first-year writing) that feed into a larger course.** In the fall, students enroll in any of several seminars that each approach the same problem from a distinct perspective. Then the students come together for a larger, multi-instructor, project-oriented course in the spring. This “jigsaw” approach encourages students to gain deeper knowledge in a particular topic and then integrate their knowledge with different understanding possessed by other students, a process supported by shared writing courses.
- **Lecture course that leads into small-group design projects and a first-year writing course.** Students take a larger lecture class in the fall that provides foundational material and skill development, followed by smaller design-project courses and writing courses in the spring.

Constellations courses may count toward distributional requirements. We recommend that the non-writing courses be assigned distributional category codes (e.g., CE, NW) and thus count toward curricular requirements. This maintains Trinity’s current practice, in that FOCUS courses and first-year seminars may count toward distributional requirements in Curriculum 2000. While multiple courses in a Constellation may share a distributional code, the Constellation as a whole should include at least three distributional codes across its courses. Note that, as mentioned previously, Century Courses may not be part of Constellations.

Constellations should be accessible to all first-year students. Individual courses in the first-year Constellations may include prerequisites, expectations, and or guidance about the skills necessary for full participation in the course, just as may be the case for current first-year seminars and other Duke courses. However, a Constellation as a whole may not be limited to students who meet a particular prerequisite.

Expectations for writing courses in Constellations

Writing instruction should remain a centerpiece of the Duke first-year experience. We recommend maintaining the requirement for a writing course taken in the first year; dedicated early instruction in writing was emphatically recommended in our meetings with faculty, regardless of department or division. Our committee believes in the continuing relevance of writing as part of the idea generation process. While we discussed the rapid explosion in usage of generative AI tools for writing – and the potential pedagogical and assessment challenges those tools evoke – we do not believe that such tools eliminate the need for training in writing. On the contrary, the proliferation of tools for generating low-quality, non-personalized content creates a comparative advantage for students trained in high-quality, evidence-based writing.

First-year writing courses should be structured around current best practices in writing pedagogy. Duke's continuing investment in writing pedagogy should provide a strong foundation in 21st-century writing knowledge, yield more consistency in learning outcomes across sections, and promote critical thinking, inquiry, and habits of mind that facilitate productive writing transfer. Key learning outcomes, grounded in rhetorical approaches to writing and writing-transfer theory, would consist of the following⁴³:

- **Constructing Arguments and Scholarly Contributions:** How to represent the sorts of inquiries that drive disciplinary research and the ways new knowledge is created, challenged, and refuted; awareness of disciplinary epistemologies; how to pose questions and develop and structure academic writing with awareness of disciplinary context and writing occasion.
- **Evaluating and Integrating Evidence:** How disciplinary epistemology informs what counts as credible evidence in scholarly writing; how to evaluate evidence with awareness of disinformation and misinformation; how to use and cite primary, secondary, and tertiary evidence in various disciplinary contexts.
- **Analyzing Genre:** Cultivating nuanced genre awareness and the metacognitive capacities to analyze genre; learning to navigate multimodal writing occasions.
- **Exploring the Ethics of Writing:** Attention to the social dimensions of writing and the ethics of representation (e.g., of ideas, human subjects, sources); honoring multiple perspectives; techniques for working with sources (e.g., quotation, paraphrase, summary, synthesis); navigating the complexities of generative AI and writing.
- **Understanding Audiences:** Developing rhetorical skills to analyze audience expectations, dispositions, and commitments in various writing contexts.
- **Understanding Writing Processes:** Iterative practice in brainstorming/discovery, research, drafting, revising, editing, and providing/receiving feedback on writing; reflection on and awareness of one's own dispositions towards writing in various contexts.

First-year writing courses should be equal partners in Constellations. Connecting writing courses to students' topical courses will improve the overall coherence of the first-year experience, both by building content-driven links across courses and by helping establish

communities of students based on shared experiences. As noted previously, these sorts of academic and personal connections are particularly important in the first year of college; they help students recognize that they belong at their institution, both academically and socially, which in turn helps protect their mental health. Connecting writing to Constellations would also simplify supporting those courses and first-year writing. For example, Duke Libraries staff could work with Constellations conveners to develop customized plans for supporting their students (e.g., providing instruction in practices for citing others' work).

Responsibility and autonomy for writing pedagogy should remain with Thompson Writing Program instructors. Our committee recognizes the critical roles played by Thompson Writing Program (TWP) instructors in supporting Trinity and Pratt students' development as writers and thinkers. Thompson Writing Program instructors should retain primary responsibility for determining the pedagogical approaches and outcomes best suited for reaching the overall learning objectives of first-year writing. Writing courses should not serve Constellations but be essential parts of them. Topical courses and their partner writing courses contribute equally to the first-year experience.

Expectations for experiential components in Constellations

First-year Constellations should have experiential components that span both semesters. The experiential components should be connected to academic goals, consistent with our fundamental values introduced earlier. They should not be purely social nor disconnected in topic from the Constellations courses. Their content, timing, and format should be determined by the affiliated faculty. Examples could include field trips to Duke Forest to take environmental samples, a weekend retreat to the Duke Marine Lab, lunches with alumni/ae who work on political campaigns, small-group meetings with a guest speaker, dinners with faculty, or any of a large array of other events designed to engage students outside of the classroom. We note that these experiential components provide an opportunity for connecting first-year students to upper-division students, thus helping build a sense of community that persists across years.

We encourage Constellations to partner with Duke centers, initiatives, institutes, programs, and facilities to develop experiential activities (e.g., an event at the Nasher museum, lunch with faculty from an Institute, etc.).⁴⁴ For example, interdisciplinary Certificate programs might be well-positioned to provide experiential activities that show students how their first-year Constellations courses can feed into sustained engagement with cross-cutting topics.

Experiential components should be chosen to maximize impact, not time commitments. For experiential components to be effective, they should be curated to engage students and complement their classroom activities. They do not need to be weekly; fewer high-quality interactions will be preferable to many low-quality interactions. Moreover, they do not necessarily need to involve after-hours time commitments. Our committee recognizes that many faculty members have family/care responsibilities that limit their ability to participate in after-hours events, especially recurring ones.

Trinity should meaningfully integrate student support services with the first-year experience, using the Constellations program as a conduit. All Trinity students will participate in this first-year program, making its courses and their experiential components a natural home for supporting students' academic skills. Key content could include connections with liaisons from Duke Libraries, the Academic Resource Center, or other units that provide academic support; guidance on studying, test-taking, reading academic papers, etc.; demystification of social norms around interacting with faculty (e.g., importance of office hours); awareness of Counseling and Psychological Services; etc. Importantly, we believe that connecting guidance about "success at Duke" to the first-year experience will make that guidance more effective; that is, students will recognize the immediate impact of that guidance upon their performance in specific courses, but will implicitly transfer what they learn to other courses. We note that the responsibility for creating these programs cannot fall on Constellations faculty, who will already be devoting their energy to supporting students through their courses.

IV.C. Alternative Models Considered

Maintaining the Curriculum 2000 requirement. Curriculum 2000 requires that Trinity students complete two courses in their first year – one seminar and one writing – but has no other formal requirements or expectations⁴⁵. We discussed the Curriculum 2000 requirement extensively, and our consensus conclusion was that the disconnected nature of these requirements fails to support our curricular values. Specifically, the Curriculum 2000 requirement does not (in itself) support a sense of connection among students or between students and faculty, nor does it help our students appreciate the value of multiple perspectives applied to a systemic issue (cf., epistemic humility). Our proposed requirement maintains the emphasis on small-group learning and writing, but expands the Curriculum 2000 requirement to include connections among courses.

Fewer requirements than Curriculum 2000 (e.g., an open first year). Our committee only considered this option briefly, as it generated little enthusiasm among committee members or among our Trinity faculty colleagues. Having minimal structure in the first year would eliminate our most critical opportunity for building community, broadening students' perspectives, and developing key skills like writing. Moreover, we see a structured first-year curriculum as particularly important for students who have less experience with the "hidden curricula of university life" (e.g., first-generation students). Creating common experiences that have disciplinary breadth can help those students acclimate to Duke and appreciate the range of experiences it provides.

Courses targeted toward skills, mental health, or the transition to college (e.g., *Duke 101*). University 101 courses have become increasingly popular, especially at large-enrollment public universities. While we see value in the content they could provide (e.g., connecting students to academic support resources), we determined that requiring such a course would not be a good option for Duke. Our primary concern was that tying skill development to a formal course –

especially one that by its nature would not involve significant difficulty or the possibility of a poor grade – would be counterproductive. Students would likely ignore or dismiss the course and its content, instead reserving their time for courses perceived to be more difficult and/or grade-sensitive. We see more value in structures that build connections to peers and faculty and for which skill development can be directly tied to course activities.

Expanding FOCUS for all students. Our proposed model allows students to fulfill the First-Year Experience requirement through participation in a FOCUS cluster and an associated writing course; however, we are not recommending that all students participate in FOCUS nor that the FOCUS structure be the only approach for fulfilling this requirement. FOCUS has two features that would make it difficult to scale to the entire Trinity student body: (1) its residential model involves students living with their cluster peers, and (2) it requires students to complete its courses in the first semester. We believe that a model that does not require FOCUS, but does accommodate and support it, provides the most flexibility for the most students.

IV.D. Implementation and Assessment Recommendations

The Arts & Sciences administration should support the infrastructure needed for Constellations. This support would likely include (a) identification and empowerment of a faculty director for the Constellations program, (b) staff support for both organizing and delivering the program, (c) resources sufficient for embedding experiential activities in every Constellation, and (d) support for professional development to help faculty think through how to teach these sorts of classes.

We urge A&S Council to work with the administration to determine an appropriate governance model for Constellations. Given how first-year academic experiences connect to so many other aspects of our students' lives, we see value in creation of a governance committee that contains not only faculty but also representation from units that support our students outside of the classroom (e.g., Student Affairs, Admissions), units that support course delivery and student learning (e.g., Duke Libraries), and students themselves. The primary charges for the committee would be to provide feedback and evaluate proposals for first-year Constellations; to identify ways of supporting those Constellations, their courses, and their experiential activities; and to assess whether existing Constellations continue to support our curricular goals. It should also consider how academic programs in the first year connect to other aspects of our students' transitions to Duke (e.g., student orientation, housing). Estimated milestones for implementation (and their timetable) are provided below in Appendix 4.

V. Language and Writing Requirements

Trinity students must complete three writing courses, including first-year writing. At least one course must be completed after the first year.

Trinity students must complete three courses in a single language sequence, two courses at the 300-level or higher in the same or different languages, or one course at the 300-level or higher and two courses in a different language sequence.

V.A. Values for the Language and Writing Requirements

Our committee sees instruction in global languages and in writing as central to a Duke liberal arts education. Trinity students will live their lives in an interconnected world – and much of their career success and personal growth will depend upon their abilities to understand others’ perspectives and express their own ideas.

We see both language and writing requirements as critical for the **development of habits of mind** that will support their intellectual development at Duke and promote life-long learning. Instruction in languages provides much more than simple exposure to another culture; it promotes a **deeper immersion in patterns of thinking** that shape societies and their people. It fits well with our fundamental values: appreciating perspectives that are very different from one’s own, stepping outside of a local environment, building connections to other people, and providing a sense of humility when dealing with a complex, multicultural world. Similarly, instruction in writing shapes how students **organize and present their ideas**, across all contexts. Modern writing pedagogy emphasizes how writing provides foundational support for a broader education: explaining the logic of one’s thinking, understanding others’ perspectives, constructing and recognizing lines of argument, synthesizing multiple threads into a single narrative, and appreciating the value and limitations of evidence⁴⁶. Writing also engages students in **reflection**, in that it requires them to slow down, to think about their own ideas, and to consider how others would respond to those ideas.

We emphasize, however, that the goal of these requirements is not proficiency; that is, we do not see language or writing as skills for which students can demonstrate mastery that obviates the need for courses at Duke. We believe that **classes taken with Duke faculty are of value to students at all levels of learning**. Students with considerable prior experience in language or writing will still grow through their exposure to advanced material. Accordingly, we want to prioritize equity across students; consistent with our approach to other requirements, we do not want Duke students to be advantaged or disadvantaged according to their prior educational and life experiences.

V.B. Recommended Requirements

Writing. Our committee recommends that Duke students take 3 Writing-coded courses, one of which is part of their first-year Constellation and at least one of which must be completed after the first year. Other than the first-year writing courses, Writing-coded courses may also count for distributional requirements. This recommendation largely mirrors the current requirement

for Trinity students within Curriculum 2000; however, we recommend two changes in the implementation of this requirement to better integrate writing within the Trinity liberal arts curriculum.

- **Revising learning objectives for first-year writing.** As discussed in Section IV.B above, we recommend that the learning objectives for the first-year writing course be updated to reflect current best practices in writing pedagogy (e.g., new research since the introduction of Curriculum 2000). We provide revised objectives in that section, provided in draft form by Thompson Writing Program faculty, noting that the final set of objectives should be determined, assessed, and updated by TWP faculty during the implementation process.
- **Integrating writing within the first-year experience.** We further recommend that first-year writing courses be integrated within the first-year experience, so that students' instruction in writing practice connects to the content, issues, and ethical considerations they are exploring in their other courses. Connecting writing to other first-year courses would also simplify the process of linking our students to sources of academic support (e.g., by Duke Library staff).

Language. Our committee recommends that Duke students complete the Language requirement by taking (A) three courses in any one language sequence; (B) two courses at the 300-level or higher, in the same or different sequences; or (C) one course at the 300-level or higher in one language and two courses in a different language sequence. Upper-level Language courses may also count for distributional requirements, as is currently allowed in Curriculum 2000. We also recommend labeling this requirement as simply "Language" to recognize the diverse linguistic landscape of our university (and of the US more generally) and to avoid the misleading connotations of "Foreign" or other alternative descriptors.

This recommendation includes one pathway specifically requested by students⁴⁷ for flexibility in completing the requirement. If a student completes a class at the 300 level in one language sequence, they may wish to proceed to another language sequence rather than taking a second course in that sequence. We thus recommend allowing students to complete the language requirement via one 300-level course in one language and two sequential course credits in another language. This would support students who wish to explore multiple languages when fulfilling the three-course requirement.

The Language requirement follows from the values identified above. It increases equity across our students; it signals our commitment to language learning as a singular opportunity for personal growth, regardless of the student's existing linguistic repertoire; and it provides students with flexibility to pursue upper-level language classes in multiple pathways.

Double-coding and double-counting. We maintain the double-coding and double-counting principles from Curriculum 2000: Classes used to satisfy a Writing requirement or a Language requirement may also satisfy the distribution requirements advanced in the previous section. For Writing, the first-year course will not carry additional distribution codes, but other writing courses (e.g., a writing course in a student's major) will typically carry distribution codes. For

Language, elementary and intermediate courses will typically not carry any distribution codes, while advanced (e.g., 300+ level) Language courses may do so.

V.C. Alternative Models Considered

More- or less-extensive Writing requirements. Our committee explored models that involved either fewer Writing-coded courses (e.g., 2 courses, 1 of which must be taken in the first year) or more Writing-coded courses (e.g., 4 courses, 1 each year). We judged that a requirement of 3 courses seems to best balance our aspirations for our students and the demands on our faculty who teach these intensive courses. We appreciate that teaching a writing-coded course can present additional time demands on its instructor (e.g., by requiring extensive, personalized feedback on students' writing) and so any significant expansion of this requirement would require much more support for our faculty. Moreover, we recognize that writing practice does not only happen in writing-coded courses. Trinity should examine the entire landscape of writing at Duke to see how well instruction in writing-coded courses translates into outcomes for students in other courses that include a writing component.

More- or less-extensive Language requirements. Our committee had extensive discussions about the right scope for a Language requirement, especially given the heterogeneity in student experiences with languages. We also looked at the extent of Language requirements at peer institutions, which differ dramatically in the scope and structure of what they require. We ended up prioritizing equity and framing the language requirement around immersive experiences, rather than skill development. We also considered how to define the courses that could count for this requirement, rejecting the idea that a course taught in English about another linguistic culture could substitute for the habits of mind that arise when thinking through material in another language. These considerations led to a recommendation that largely maintains the Curriculum 2000 requirement but increases equity in the way students complete that requirement.

V.D. Implementation and Assessment Recommendations

Implementation of the revised Language requirement should be straightforward, since it represents only minor changes from Duke's current practice. We recommend that Trinity continue to monitor the course offerings available in different language pathways to ensure that students have access to advanced courses that support their interests.

Similarly, our recommendation largely maintains the existing Writing requirement. We anticipate that the primary implementation challenge for writing will be to support our faculty as writing becomes interconnected with other first-year courses. (Additional recommendations herein are provided in the section on the first-year experience.) We also will need to ensure that faculty who provide writing instruction – whether TWP faculty who teach first-year courses or departmental faculty who teach writing in disciplinary courses – are supported by Trinity. If we want to encourage majors to have a writing-enriched curriculum, for example, we will need a coherent program that assesses our writing practices and provides guidance to the faculty teaching writing within their disciplines.

VI. Depth requirement: The Major

Trinity students must complete a major that provides a coherent path of study within a single academic discipline.

Our committee recommends that Trinity maintain its requirement for completion of an academic major. We also support continuation of the current rules associated with majors:

- Each major should be associated with a department or program; the faculty in that department/program should have primary responsibility for determining its content.
- New majors and revisions to existing majors should be evaluated by a Curriculum Committee comprising faculty from throughout Trinity.
- Majors should generally require a sustained program of study (e.g., 10 courses or more) that provides a coherent pathway through an academic discipline and its methods.
- In addition to the required major, students may complete additional majors, minors, and/or certificates. Students may complete a maximum of two majors and a maximum of three academic plans.
- The requirement to complete a major may also be met by a Program II course of study.

Our committee recommends that Arts & Sciences Council explore two additional options in future years; each of these falls outside the remit of our committee and would benefit from independent discussion at Council.

VI.A. Future Option: Limiting number of courses required for a major

When considering the expectation that a liberal arts education should require breadth outside of the major, our committee noted the wide disparity across Trinity majors in the number of courses they require. Some majors require as few as 10 courses with no co-/prerequisites, while others require as many as 17+ courses including co-/prerequisites.

This nearly two-fold difference in requirements generates inequities among students. Most notably, if a major requires a large number of classes – and particularly if those classes must be pursued in a sequential manner because of prerequisites – then it may discourage students who come to Duke without already knowing foundational material, who need additional coursework, or who only discover their interests in their sophomore year. Moreover, majors differ dramatically in how readily they can be combined with other academic plans.

Our committee does not recommend any particular restriction on the number of courses in a major or on how co-/prerequisites should be implemented; again, such a recommendation is beyond the scope of our committee's remit. Instead, we recommend that departments self-evaluate the scope of their majors and that A&S Council return to this topic following implementation of a new curriculum.

VI.B. Future Option: Adding capstone/experiential requirement

Our committee repeatedly discussed the potential inclusion of a requirement for some culminating/broadening academic experience either within or outside of the major. Many Duke students already participate in such experiences through highly visible named programs (e.g.,

Duke Engage, Bass Connections), academic programs outside of the Duke classroom (e.g., study away), or capstone activities in their major (e.g., senior theses, graduation with distinction).

Collectively, such experiences fall under a broad category of *high-impact practices* – and there is considerable scholarship demonstrating their value for students’ learning, growth, belonging, and mental health⁴⁸. Committee members saw these sorts of experiences not only as valuable for Duke students but also as consistent with the desired values for a new curriculum. We want to encourage our students to immerse themselves in new ideas and cultures, to sustain their engagement in topics across multiple semesters, to integrate and synthesize their coursework, and to end their time at Duke with opportunities for *reflection*.

Yet, our committee also recognized that Duke is not ready to instantiate any sort of formal requirement, whether for an academic experience independent of the major or a capstone course within the major. One barrier is institutional: Duke does not (yet) track its students’ non-classroom academic experiences nor how those experiences map onto specific outcomes. As part of our institutional research, one of our summer graduate fellows attempted to complete a full survey of experiential opportunities available to Duke students; because of the decentralized nature of these programs and lack of centralized tracking, this involved independent contact with every program. Simply put, even the most basic questions about Duke students’ engagement with these experiences (e.g., “What proportion of Duke students pursue at least one non-classroom experience?”) could not be readily answered.

Another challenge comes from the highly diverse ways in which Trinity majors are structured. While certificate programs in Trinity (and majors in Pratt) build toward capstone experiences, most majors are defined by a collection of courses – with some majors being relatively flat in their structure (i.e., courses taken in a variety of orders) and others being more hierarchical (i.e., courses taken in a particular sequence). Accordingly, students progress through some majors as part of well-defined cohorts but through other majors asynchronously. Our committee recognizes and appreciates this diversity, which means that no simple requirement (e.g., take a capstone seminar in the spring of your senior year) could work well for all majors.

Duke is not currently ready to implement any experiential or capstone requirement – and our committee does not recommend including such a requirement as part of the roll-out of a new curriculum. However, we do recommend that A&S Council partner with the Office of Undergraduate Assessment on the sort of institutional research necessary for evaluation of potential future requirements. We should develop a full inventory of non-curricular academic programs that includes information about student participation (e.g., demographics and majors of participants; student pathways after the program) and the learning objectives of those programs (i.e., what academic and personal goals do the programs support). We should also track how many students pursue capstone activities within the major – and how those activities support our students’ development.

Our committee notes that the impending 2029 SACS re-accreditation cycle provides a natural target for potential curriculum revisions (e.g., through our next institutional Quality Enhancement Plan). We recommend that A&S Council assess students’ participation in experiential/capstone activities in parallel with assessment of the new curriculum itself – and then work with institutional leadership to evaluate whether some more formal requirement should be integrated into the curriculum.

VII. Non-Curricular Topics for Future A&S Council Discussions

Each of our interim reports considered a set of non-curricular topics that recurred throughout our meetings with students and faculty: grading, mental health, tensions with co-curricular activities, supporting teaching and advising, flexibility in course scheduling, among many others. Here, we outline a subset of those topics that – while not part of our formal curriculum proposal – will require attention from A&S Council over the coming years. For convenience, the key recommendations from each section are listed here, presented in order of their sections and not in any sense of priority:

- [A] We recommend that A&S Council work with the administration to **support pilot programs that test modular courses** and other forms of flexible course delivery.
- [B] We recommend that A&S Council **consider reconfiguring the academic calendar to provide space for students to engage in focused exploration** with minimal competing demands on their time.
- [C1] We recommend **increased support for teaching-focused faculty** via normalization of compensation to that of research-focused faculty, expansion of sabbatical and leave opportunities, and/or establishment of security of employment and protection of academic freedom via tenure or a tenure-equivalent system.
- [C2] We recommend that Trinity **develop new models for supporting teaching excellence** across the full range of its faculty (not only the very best and very worst) by emphasizing continuous growth and improvement.
- [C3] We recommend that the A&S administration **incentivizes departments to self-evaluate their teaching programs** on a recurring basis and provides meaningful resources to promote undergraduate teaching excellence.
- [D] We recommend that Trinity explore approaches to student assessment that **resist the negative effects of grade compression**, prioritizing those over simple expansion of S/U grading.
- [E] We recommend expanded support for an **advising program reconceptualized around supporting our students' growth** rather than optimizing a path through the curriculum.
- [F] We recommend that implementation of the new curriculum be accompanied by a **robust assessment plan** jointly created by a faculty implementation committee and Duke's Office of Undergraduate Assessment.

VII.A. Encouraging flexibility and modularity in how courses are offered

Our committee considered whether to recommend formal changes to our current 2-semester, 14-weeks-per-semester, 4-courses-per-semester, 2.5-weekly-hours-per-course model. We recognized that other plausible models exist – and that different academic content might be better served by a different model. For example, some topics might be best covered in a course that is shorter (e.g., 5-7 weeks) or that is more intensive (e.g., meets for more time each week). Students may also see value in combining several smaller modules to build large courses (e.g., taking two 7-week courses on different research methods).

We also appreciated the thoughtful discussion of the benefits and challenges of flexibility at the 12/7/23 Arts & Sciences Council meeting, which generated many perspectives

that resonated with committee members: that some departments already have de facto modularity in their courses, especially at the graduate level; that flexibility can be particularly important for embedding experiences into the semester (e.g., travel to the Marine Lab); that very short-duration courses exacerbate problems with student wellness and mental health; that increased flexibility in student options will require more coordination among faculty and place more burden on advisors; and, most fundamentally, that any change from the traditional one-course-per-semester model will require advance consideration of differential incentives (and potential inequities) across departments and faculty.

Given that modularity (a) will work well for students and faculty in specific courses and programs but (b) will lead to unexpected externalities for our larger scheduling system, **we recommend that A&S Council work with the administration to support pilot programs that test modular courses and other forms of flexible course delivery.** We do not expect that Duke will transition away from our traditional semester-/course-based system in the near future. But, we do see value in exploring targeted deviations from that system to help encourage creative approaches to course delivery.

VII.B. Re-envisioning the Duke academic calendar

As part of our discussion of core curricular values – most notably, allowing time for in-depth reflection on a single topic – our committee discussed whether to recommend that Duke adopt a Winter Term (e.g., 2-3 weeks in January) in which students complete a single class/activity. Many institutions currently include such a term in their academic calendar, often to provide students an opportunity for focused exploration (e.g., travel to a field site) with minimal competing demands on their time.

Our committee recognizes that such a substantive change to Duke's academic calendar would pose logistical and practical challenges: Would we shorten the other semesters and/or extend them into the summer? How would we handle teaching credits? How would an additional term interact with the practical features of student life, like on-campus residency? How would we support experiential activities to avoid increasing inequities across our students? We again appreciate the valuable insights provided by A&S Council members at their 12/7/23 meeting. That wide-ranging discussion generated examples of new opportunities that could be facilitated by a one-course winter term: travel experiences that accompany language courses, a hackathon in which students apply programming skills to a real-world problem, community-focused scholarship in Durham or elsewhere, etc. Yet, Council members also emphasized that the logistical challenges of changing the calendar would not be easily overcome, particularly if we want a curriculum that ameliorates inequities among our students (e.g., ensuring that they have equal access to resource-intensive activities like travel) and our faculty (e.g., minimizing the burden of an intensive term on non-regular-rank faculty).

Our committee does not recommend that Duke alter its academic calendar, whether to introduce a Winter Term or to otherwise change the length and timing of our semesters. However, **we recommend that A&S Council consider reconfiguring the academic calendar to provide space for students to engage in focused exploration with minimal competing demands on their time.** This discussion could be connected to that of course modularity and

flexibility; for example, students could combine an intensive travel experience at the start of the semester with several related classes that span the rest of the semester. Moreover, we urge the A&S administration to identify resources that could allow any student to embed in-depth, focused academic activities into our existing calendar (e.g., funded experiences over spring break).

VII.C. Supporting outstanding teaching by faculty and in departments

Our committee recognizes that our cardinal goal – providing an outstanding liberal arts education – draws upon the expertise and energy of the entire Trinity faculty. As emphasized throughout this document, we want a curriculum that supports our departments as they develop amazing courses and supports our faculty as they provide world-class instruction.

We emphasize that these are *collective goals*; that is, we cannot implement a new curriculum (or even maintain Curriculum 2000) by supporting a few of our top teachers or a handful of our largest departments. Instead, we need structures that support all of our faculty and that incentivize all of our departments and programs to improve their undergraduate courses. In Summer 2023, a subset of our committee formed an ad hoc working group to think through these challenges. We highlight here several of its recommendations:

- The burden for implementation of a new curriculum will fall disproportionately on teaching-focused regular-rank faculty, notably Professors of the Practice, who are more likely to teach large classes and to serve in administrative roles like DUSs. (Note these faculty already play an outsized role in supporting Curriculum 2000, so the need to address issues of equity will be present regardless of whether and how we change our curriculum.) Our committee sees the adoption of a new curriculum as providing an opportunity for signaling the centrality of undergraduate education to Duke’s core mission as well as Duke’s commitment to equitable treatment of faculty who are vital to that mission. **We recommend increased support for teaching-focused faculty via normalization of compensation to that of research-focused faculty, expansion of sabbatical and leave opportunities, and/or establishment of security of employment and protection of academic freedom via tenure or a tenure-equivalent system.**
- Our current model for supporting undergraduate teaching focuses on the tails of the distribution: recognizing a few of our very best instructors with named chairs and awards, while remediating those faculty who most struggle. The vast majority of our faculty receive minimal recognition or skill development – and many report never having experienced any teaching mentoring at any point in their careers. **We recommend that Trinity develop new models for supporting teaching excellence across the full range of its faculty (not only the very best and very worst) by emphasizing continuous growth and improvement.**
- Duke tends to think of teaching as the province of individual professors – and it structures incentives accordingly (e.g., Trinity teaching awards). Yet, every Trinity professor is embedded within institutional structures that can be supportive (e.g., robust cultures of assessment, departmental norms for the value of teaching) or

dismissive of outstanding teaching (e.g., received wisdom about the irrelevance of teaching for promotion, raises, etc.). Departments could not only improve their own teaching programs (e.g., updating majors and minors) but also contribute to public goods like interdisciplinary programs, team-teaching, and experiences. **We recommend that the A&S administration incentivizes departments to self-evaluate their teaching programs on a recurring basis and provides meaningful resources to promote undergraduate teaching excellence.**

VII.D. Rethinking how we grade and evaluate students

Across all of our discussions with Trinity faculty^{49,50,51,52} and students⁵³, there was near-uniform concern about how grading influences students' learning, course selection, and mental health. Our committee recognizes that concerns with grading have been endemic and longstanding within US higher education generally⁵⁴, and within Duke specifically⁵⁵. We believe, however, that the challenges associated with grading have changed in recent years, as part of a transition from grade inflation to *grade compression* (i.e., only providing students with a small range of grades at the upper end of the scale). To repeat and extend the examples in our interim reports:

- As of the adoption of Curriculum 2000, the average Trinity GPA was approximately 3.3; as of 2022, that average was approximately 3.7.
- For the majority of current Duke students, an A- grade lowers their GPA.
- The cutoff GPA for *Summa Cum Laude* in Spring 2023 was a 3.99, meaning that a single B+ (e.g., in one class in their first semester) disqualified a student from that honor.
- Duke is embedded within an ecosystem of peer institutions, all of whom are facing similar challenges with grade compression. Recent national news stories highlighted how approximately 80% of all grades at Yale were in the A-range, and only 11% of grades were B or lower. Similar proportions are evident at Harvard and other elite private institutions.⁵⁶

Grade compression has shaped both student and faculty behavior at Duke⁵⁷. Students have become exquisitely sensitive to any differences in grading policies across courses, especially if a class (or section of a class) has a potential for giving B grades⁵⁸ – and many students strategically prioritize courses that are perceived as low-effort, easy-As when fulfilling curricular requirements⁵⁹. And, in a striking example of unintended consequences, we have heard that the information presented in our interim report caused some faculty (and perhaps even departments) to recognize that their grading scale was lower than other units at Duke and thus raise their average grades accordingly. We are particularly concerned about how grade pressures not only undermine students' intrinsic motivation in courses that are not perceived to have immediate instrumental value, but also undermine our faculty's ability to adopt practices that support students' learning (e.g., giving authentic feedback).

Our committee discussed potential changes to the Trinity grading policy: an ungraded first semester or first year, allowing students to take a larger number of courses via S/U grading, allowing all non-major distribution requirements to be completed via S/U, etc. We note that none of these changes would solve the underlying systemic problem and that each

would introduce unintended, disruptive consequences. For example, while eliminating grades in the first semester has become increasingly popular across a wide range of institutions⁶⁰, doing so actually increases the importance of grades in subsequent semesters, especially given that many students now apply for competitive internships in fall or spring of their sophomore year. Accordingly, some peer institutions are now moving away from ungraded semesters in favor of simply allowing students to choose which grades to count toward their GPA⁶¹.

We emphasize the same conclusion from our last report: Duke cannot solve the problems with our grading system unilaterally. Instead, we and other peer institutions will need to collectively re-envision our approach to grading – and we do not expect that there will be significant pressure toward such a consortium approach in the near future. (Any institution that takes a leadership role in such a consortium risks being seen as threatening students' high GPAs, and so most institutions will choose to downplay their own role in grade compression.)

Within the framework of a new curriculum, Duke could explore methods for assessment that could better ensure student motivation/engagement without resorting to guaranteed high grades for all students. Examples could include pairings of first-year courses such that material learned in one course supports the assessments in another course; mastery-based grading within writing, language, or Century courses; and creative approaches to credit-bearing but ungraded experiences within the majors.

In summary: **We recommend that Trinity explore approaches to student assessment that resist the negative effects of grade compression, prioritizing those over simple expansion of S/U grading.**

VII.E. Supporting our students through improved advising

Investments in academic advising should accompany the new curriculum^{62,63,64}. Students now interact with a disparate set of faculty and staff – pre-major advisor, major advisor, research mentor, DUS/DUSA, academic deans, and DAEs – who fill a similarly diverse set of roles. Our current structure poses many challenges for advising⁶⁵. Students may not reach out to the right person for guidance⁶⁶; reliance on information from peers often leads to problematic self-assessments (cf., the ideal of “effortless perfection” for which Duke students have been historically known⁶⁷); academic demands are increasingly intertwined with mental health concerns⁶⁸; and all of these issues co-occur at a particularly vulnerable time in students' development⁶⁹.

Despite these challenges, **we recommend expanded support for an advising program reconceptualized around supporting our students' growth rather than optimizing a path through the curriculum**⁷⁰. Advising practices should support the values articulated in Section II. For example, the changes to the first-year experience follow from the recognition of the importance of connections in supporting student engagement and mental health; better integration of advising within the first year could help students identify academic and non-academic communities that provide support^{71,72}. Similarly, the simplification of distributional requirements should reduce the need for transactional advising (i.e., what courses count for what requirements) and provide more space for mentoring. We recognize that supporting advising will require significant resources – both for its infrastructure and its people⁷³ – and we urge A&S Council to work with the administration on a plan for efficient use of those resources.

VII.F. Planning for assessment: A living curriculum

Consistent with our value of humility, our committee does not expect that what we propose here will remain in place and unchanged for the next 25 years. Instead, we envision a dynamic, living curriculum in which regular cycles of assessment promote constructive change. Some flexibility is built into the proposed curriculum, most notably in the first-year experience courses and the departmental Century Courses. Trinity faculty can alter the content and format of those courses to match their changing goals for our students. However, we recommend that Trinity consider all aspects of the curriculum as targets for review – which would entail a more comprehensive program of assessment.

Scholarly research notes that assessment of a general education curriculum poses distinct challenges from assessment of individual programs or courses.⁷⁴ An assessment plan may be undermined by low investment in the curricular values or by failures of coordinated planning and oversight.⁷⁵ Assessment of a curriculum may also require multiple approaches: localized assessment within individual courses, centralized assessment of successive student cohorts, and adoption of individualized assessment strategies for sets of similar courses.⁷⁶ Finally, curricular assessment needs to be linked to faculty governance. The peer institutions that effected new curricula each appointed a faculty governance body⁷⁷, but whether those bodies are informed by an assessment program and empowered to implement change is difficult to ascertain.

We recommend that implementation of the new curriculum be accompanied by a robust assessment plan jointly created by a faculty implementation committee and Duke's office of Undergraduate Assessment. We see three elements as critical for that plan:

- **Targeted data collection.** Assessment can be resource-intensive, especially if quantitative institutional data is to be accompanied by qualitative measures (e.g., coding student surveys and interviews). Moreover, the curriculum interacts with essentially all other aspects of undergraduate education, so measures should be selected to isolate the unique influences of particular curricular elements. We recommend that the faculty implementation committee plan both the targets for data collection and the span of time over which data will be collected (i.e., recognizing that a one-year cycle may be insufficient for identifying the impact of broad changes), rather than attempting to measure every aspect of the Trinity student experience every year.
- **Empowered faculty.** The new curriculum will become the responsibility of the entire Trinity faculty, who will implement its elements through their teaching and advising. We recommend that assessment plans not only engage those faculty most involved with curricular change (e.g., DUSs, instructors for Century Courses), but solicit input from a broader range of faculty. We note that the departmental self-evaluations recommended in Section VII.C. would provide opportunities for assessment.
- **Closed-loop assessment.** Assessment results can often be disconnected from channels of decision making. We recommend that annual assessment report be provided to Arts & Sciences Council / ECASC, to the Dean of Academic Affairs in Trinity College, and to the Vice Provost for Undergraduate Education – who should each provide feedback to guide the following year's assessment plan.

VIII. Summary and Next Steps

Our recommended curriculum follows from nearly two years of TCDC discussions, several hundred individual meetings with departments, programs, student groups, and other units, and feedback collected from students, faculty, administrators, and staff. We believe that we have synthesized their input – along with institutional research and academic scholarship – into a curriculum that is grounded in values and that is structured to support our students' growth.

We appreciate the sustained engagement of so many people throughout this long process, and we are hopeful that your engagement will be rewarded with a new curriculum that provides a liberal arts education worthy of Duke and its students.

Respectfully submitted,

Trinity Curriculum Development Committee

March 7, 2024

Appendix 1. Final TCDC Recommendation to A&S Council

I. Overview of the Curriculum

Trinity students fulfill their degree requirements by completing the following:

- **Liberal arts.** Trinity students must complete two courses in each of six categories. Up to two *Century Courses* may each fulfill two of these twelve requirements.
- **First-year experience.** Trinity students must complete in their first year a set of three interconnected courses that explore a topic from multiple perspectives. These include one first-year writing course and two other courses. At least one of these must be taken in the first semester, and at least one must involve small-group learning.
- **Writing.** Trinity students must complete three writing courses, including first-year writing. At least one course must be completed after the first year.
- **Language.** Trinity students must complete three courses in a single language sequence, two courses at the 300-level or higher in the same or different languages, or one course at the 300-level or higher and two courses in a different language sequence.
- **Major.** Trinity students must complete a major. In addition to the required major, students may complete additional majors, minors, and/or certificates. Students may complete a maximum of two majors and a maximum of three academic plans. The requirement to complete a major may also be met by a Program II course of study.
- **Course credits.** Students must complete a minimum of 34 academic credits.
- **Residency requirement.** Students must fulfill the Duke residency requirement.

II. Liberal Arts Requirements

Trinity students must complete two courses in each of six categories for a total of twelve required courses. Courses may receive up to two category codes, but each course counts only once toward the distribution requirements.

CE: Creating and Engaging with Art

Courses in this area involve the production, performance, and/or experience of artistic creativity.

Students develop cognitive, affective, and corporeal capacities through the process and production of knowledge via the creative arts; explore through practice the aesthetic forms that arise across cultures and communities; and formulate insights about human creativity by making art and reflecting on how values and meanings are expressed through arts practice.

HI: Humanistic Inquiry

Courses in this area interpret literary and aesthetic expressions that span geographical locations,

historical periods, and cultures. Students analyze works and practices; engage with philosophies, religions, and intellectual traditions; investigate communication practices and media; and gain skills in research methods associated with humanistic inquiry.

IJ: Interpreting Institutions, Justice, and Power

Courses in this area investigate the events, ideas, and practices that shape human societies. Students examine institutions, ethical and cultural traditions, religious systems, and the historical and current events that shape these large-scale features of societies; examine the structures that underlie inequality, power, and societal change; and apply a diverse set of qualitative and quantitative scholarly practices.

NW: Investigating the Natural World

Courses in this area investigate and develop models for physical and biological processes. Students develop foundational knowledge about the causes of natural phenomena; explore the structure and temporal evolution of physical and biological systems; apply experimental, analytical, and computational methods; and learn the power and limits of scientific explanations.

QC: Quantitative and Computational Reasoning

Courses in this area involve mathematical reasoning, statistical analysis, and computational methods.

Students engage in formal, inductive, and deductive reasoning; apply statistical modeling and inference methods; learn tools and techniques for data analysis; develop algorithms to solve problems; design, develop, and analyze computational systems; and interpret claims based on computational models and simulations.

SB: Social and Behavioral Analysis

Courses in this area examine human individual behaviors, group dynamics, and societies. Students explore thought processes, decisions, beliefs, emotions, and motivations; examine how individuals develop over the life course and in response to experiences; and study the development and expression of identities, the establishment of social structures and political institutions, and the dynamics of economic systems.

III. *Century Courses*

Up to two *Century Courses* may each fulfill two of the twelve distribution requirements. Additional *Century Courses* fulfill only one requirement.

- Century Courses will be designated by departments and programs, who may each optionally offer one Century Course in each of their major(s) each semester. If a department or program supports a minor but not a major, then it may offer a Century Course for that minor.
- The content and format of each Century Course should be determined by the offering unit, according to its own goals for Duke students.
- Century Courses receive two codes: either two of the same code or two different codes. For up to two Century Courses, a student may count both codes toward distribution requirements. Century Courses taken in excess of two fulfill only one requirement.
- Century Courses should be accessible to all Trinity students. They should have no prerequisites, whether formal or informal.
- Century Courses cannot be part of first-year Constellations and cannot carry non-distributional codes (Language or Writing).

IV. First-year Experience: *Constellations*

Trinity students must complete in their first year a set of three interconnected courses that explore a topic from multiple perspectives. These include one first-year writing course and two other courses. For the non-first-year-writing courses, at least one must be taken in the first semester and at least one must involve small-group learning.

- Courses in each Constellation should connect to its theme. The overall set of courses and faculty should represent multiple departments and distinct disciplinary perspectives.
- Courses in the Constellation must fulfill at least three different distribution codes.
- Constellations courses may all be taught within the Fall semester (such as via FOCUS) or be spread across the Fall and Spring semesters. Each student must take at least one course in their Constellation in the Fall semester.
- The Constellation should include small-group learning experiences. Students must take at least one of their non-first-year-writing courses via a small-group learning experience (e.g., a seminar format of ≤18 students).
- While individual courses in a Constellation may have prerequisites, there must be pathways that allow all students to participate in that Constellation regardless of their backgrounds.
- The Constellation should include direct engagement with ethical issues. At least one of the courses taken by each student must explicitly address ethical issues related to the theme of the Constellation.

Appendix 2. TCDC Roster

Scott Huettel, Professor, Psychology and Neuroscience*
Edna Andrews, Professor, Linguistics and FOCUS program
Owen Astrachan, Professor of the Practice, Computer Science
David Berger, Professor, Economics
Mine Çetinkaya-Rundel, Professor of the Practice, Statistical Science
Denise Comer, Professor of the Practice, Thompson Writing Program
Stephen Craig, Professor, Chemistry
Gustavo Furtado, Associate Professor, Romance Studies
Christina Gibson-Davis, Professor, Sanford School
Jennifer Hill, Director, Office of Assessment
Hae-Young Kim, Professor of the Practice, Asian & Middle Eastern Studies
David Malone, Professor of the Practice, Education
Jarvis McInnis, Assistant Professor, English⁺
Lillian Pierce, Professor, Mathematics[†]
Deborah Reisinger, Professor of the Practice, Romance Studies
Sophia Santillan, Associate Professor of the Practice, Mechanical Engineering
Tom Schultz, Associate Professor of the Practice, Nicholas School
Josh Socolar, Professor, Physics, Chair of Arts & Sciences Council
Josh Sosin, Associate Professor, Classical Studies
Candis Watts Smith, Vice Provost for Undergraduate Education
Sarah Wilbur, Associate Professor of the Practice, Dance
Christopher Wildeman, Professor, Sociology
John Willis, Professor, Biology

Administrative Support: Tony Snipes, Arts & Sciences Council
Graduate Fellow: Sarah Ishmael

Summer Fellows: James Chu, Sinja Küppers, Elizabeth Schrader Polczer

* Committee Chair

⁺ On leave, 2023-2024 academic year

[†] On leave, Spring 2024 semester

Appendix 3. TCDC Charge

This charge from Trinity College of Arts & Sciences Dean Valerie Ashby and Provost Sally Kornbluth was delivered to the committee on March 28, 2022.

On February 3, Arts & Sciences Council affirmed its interest in reviewing the structure and content of the curriculum that governs much of undergraduate education at Duke, proposing changes that speak to the interests and needs of our students in the coming decades. Curriculum 2000, as the name suggests, has been in place for more than 20 years. Discussions at recent council meetings acknowledged that we have added expertise in contemporary areas of study and that all faculty are responding to evolutions in their disciplines and innovating pedagogical practice. Meanwhile, our students expressed a desire to create intellectual community through shared experiences and to lower barriers to exploration and the pursuit of interests across varying fields.

This charge is the next step in initiating the committee's work, and through it, we grant you permission to think big. There is no limit to what you can ask or explore, and purposeful dreaming, curiosity and creativity are strongly encouraged. We ask that you start your listening sessions and committee discussions by thinking deeply about what you want to achieve through this effort and why. To that end, please consider:

Our Mission. In this exercise and every day – our mission is to deliver a world-class liberal arts and sciences education in a research environment, and to assess how we might design a curriculum that matches the unique abilities and aspirations of Duke and its students. Within Duke, we have strength attained through deep disciplinarity as well as a rich tradition of broad interdisciplinarity. Can a new curriculum leverage both? How can we create an educational experience that is intellectually deep, integrated and accessible – a combination of intensive collaborative work and self-paced discovery? Are there tensions between being an R1 institution and a liberal arts college, and if so, how do we resolve them? How might our curriculum prepare students to meet challenges unique to this moment in history and to Duke's particular place in the world?

Our Students. Our students have changed over the last 20 years. So has the world they inhabit. Students today have been shaped by a period of increasing political strife, war, economic crises and a global pandemic – all sources of uncertainty, which they now seek to avoid. By and large, they are developmentally younger than those from previous generations, and few have comfort or experience engaging with adults in unmediated spaces.

Furthermore, in order to gain admission to Duke, many of our students have never failed. They have followed all the guideposts and checked every box. They are not only brilliant academically but have excelled in their extracurricular engagements. We can expect many to arrive with a well-considered four-year plan and an aversion to risk that stems from both a lifetime of immediate access to and dissemination of information and the threat of an error or misstep echoing online for the rest of their lives.

We have no choice but to meet our students where they are as we seek to instill in them fundamental and transferable habits of mind as well as the essential skills needed to create a good life. If we want to encourage exploration and resilience, we must be intentional about helping students confront fears, promoting meaningful engagements with faculty, and offering empathy for the ways our students differ from ourselves.

What is our responsibility to these students? How does our curriculum ensure exploration in a way that allows all students to find an intellectual home at Duke? And how does the curriculum speak to the needs and interests of the diverse set of students we aspire to attract and educate? Do our existing learning experiences introduce unnecessary complexity and friction into a student's journey? How do we move from an ad hoc collection of experiences into a powerful and coherent set of learning opportunities? What will those who will graduate over the next decade need in order to live a full and complete life – one where they can act effectively in service to society?

Our Faculty. Our faculty are among the best in the world. Their ingenuity and innovative spirit brought us to this point – to the robust curriculum we still lean on today and the ways our courses and co-curricular offerings have expanded and evolved over time. We want to create conditions that allow our faculty to flourish – an environment where they can be energized by participating in our curriculum and experiencing all that can be achieved through it.

What transformative offerings and experiences have already been created by our faculty that should be preserved or expanded? What have our faculty learned in the last 20 years? In the last two? How does the curriculum enable and encourage the innovative pedagogy and high-touch teaching and mentoring that our faculty value?

As we embark on this process, a broad swath of faculty and the many departments they represent must be engaged. We ask that you commit yourselves to transparency, open communication and frequent updates. Be open to feedback and to considering diverse perspectives beyond those present on the committee.

Once the questions above have been considered, you can turn toward the structure and framing that will achieve the needs and opportunities you have identified. You may choose to contemplate individual components of the curriculum, if you wish, such as what requirements it might include and what is retained from our current model vs. what is reinvented or created from scratch. However, we are neither compelling you to do this nor limiting what is possible. Bear in mind that simplicity is often an underrated quality in the systems we create within higher education.

We have complete confidence in the committee we have assembled to accomplish this effort. Throughout the process, you will have access to the two of us and to the Arts & Sciences Council – as well as our full support – to ensure the work can proceed smoothly and expeditiously. Thank you for your commitment to this most vital effort as well as to Duke students and our future!

Appendix 4. Chronology of TCDC Activities

Fall 2021

- 11/4/21: Arts & Sciences Council discussed the need for consideration of a new Arts & Sciences curriculum; remarks by Dean Ashby and Provost Kornbluth were followed by small-group discussions among A&S Council members.

Spring 2022

- 2/3/22: A&S Council voted to support ECASC's resolution affirming Council's interest in curriculum development.
- 2/4/22: Trinity Curriculum Development Committee (TCDC) formed
 - Committee comprises 20+ members from A&S, Sanford, Nicholas, and Pratt.
- 2/14/22: TCDC begins weekly meetings (8:30am-10am, Fridays)
 - Spring 2022 meetings seek to establish overall principles for the curriculum development process and identify information needed for that process (e.g., stakeholders for meetings, institutional data, and scholarly research).
- 3/28/22: Dean Ashby and Provost Kornbluth issue TCDC charge; TCDC website created; materials from TCDC meetings made available to all A&S, Nicholas, and Sanford faculty through Box folders.
- 4/28/22: TCDC chair provides update at A&S Council

Summer 2022

- TCDC recruits graduate research fellows who conduct research on topics of interest including co-curricular activities, grading, curricular structures at other institutions, etc.

Fall 2022

- 9/2/22: TCDC begins weekly meetings (8:30am-10am, Fridays)
- 9/12/22: Beginning in mid-September and continuing through early 2023, the TCDC meets with key stakeholders (e.g., departments, programs, groups of faculty, and student-focused administrators). Meetings with departments and programs were attended by 2 or more TCDC members who took notes on the discussion and then circulated the notes back to the unit. A partial list of meetings included:
 - 40+ Departments, Programs, and Majors within Arts & Sciences
 - Leadership and faculty within the Nicholas, Sanford, and Pratt Schools
 - Leadership of University Institutes and Centers
 - Department Chairs and Divisional Deans
 - Directors of Undergraduate Studies
 - A&S Courses and Curriculum Committees
 - Career Center, Student Affairs, Undergraduate Admissions
 - Trinity Deans, Academic Advising, Pre-Health Advising
 - Duke Libraries
- Example topics of Fall 2022 TCDC meetings (see Box folder for supporting material):
 - Purposes of liberal arts education
 - History of Curriculum 2000
 - Institutional research

The Arts & Sciences Curriculum

- Grading and Assessment
- Understanding the Co-curriculum
- First-year activities
- Data about student course selection and pathways
- Synthesizing input from stakeholder meetings
- Understanding peer institutions' curricula

Spring 2023

- 1/13/23: TCDC begins weekly meetings (8:30am-10am, Fridays)
- 1/13/23: TCDC meets with Committee on Undergraduate Teaching
- 2/10/23: Meeting with DSG Leadership
- 2/24/23: Submission of interim report to A&S Council and all Trinity faculty
- 3/2/23: TCDC begins hosting student focus groups, in consultation with DSG leadership
- 3/2/23: TCDC chair and members discuss interim report at A&S Council
- 3/3/23: TCDC begins to assess curricular elements; meetings over the rest of the spring consider individual elements and how they have been combined into curricula (e.g., in peer institutions)
- 4/4/23: TCDC members host events for students in focused areas (e.g., arts, languages)
- 5/3/23: Mini-retreat held on campus
- 5/12/23: Submission of summary of spring activities to ECASC / A&S Council
- 5/18/23: TCDC chair meets w/ECASC to plan A&S Council discussions for fall semester

Summer 2023

- In lieu of full-committee meetings, the committee creates a set of ad hoc working groups that explore potential values, curricular elements, and logistical challenges. Each working group meets at different times throughout the summer and works asynchronously.
- Topics included:
 - Value: Epistemic Humility
 - Value: Narrative Arc
 - Assessment
 - Grading
 - First-year Experience
 - Incentivizing teaching
 - Modularity and the Academic Calendar

Fall 2023

- 8/25/23: Mini-retreat held on campus
- 9/8/23: TCDC begins weekly meetings (8:30am-10am, Fridays); Topics for the fall included but were not limited to:
 - Distribution requirements
 - Ensuring breadth and depth in the curriculum
 - Language requirements
 - Writing requirements
 - Non-distributional requirements; experiences; capstones
 - First-year experiences
 - Ensuring that our curriculum is grounded in values

The Arts & Sciences Curriculum

- 9/17/23: TCDC submits its second interim report to A&S Council
- 10/5/23: A&S Council discussion on breadth and depth in distributional requirements
- 10/23/23: TCDC hosts town hall with students, in partnership with student leaders
- 11/6/23: TCDC hosts town hall with students, in partnership with student leaders
- 11/2/23: A&S Council discussion on the first-year experience
- 12/7/23: A&S Council discussion on modularity in courses and the academic calendar
- 12/11/23: Mini-retreat held on campus

Spring 2024

- 1/5/24: TCDC begins weekly meetings (8:30am-10am, Fridays)
 - 1/5/24: TCDC votes to affirm its draft recommendation to A&S Council
 - 1/11/24: Submission of draft report to A&S Council
 - 1/11/24: TCDC chair and members present recommendation at A&S Council meeting
 - 1/12/24: Beginning in mid-January, TCDC members meet with A&S departments and programs and with other stakeholders. Meetings included:
 - Most departments and programs in A&S, Sanford, and Nicholas
 - Directors of Undergraduate Studies
 - Courses Committee
 - Academic Deans
 - Certificate Directors
 - Department chairs and divisional deans
 - Duke Student Government Leadership
 - Town Halls with students
 - Engineering Faculty Council, Pratt School
 - 2/1/24: Curriculum discussions at A&S Council meeting
 - 2/23/24: TCDC votes to affirm its final recommendation to A&S Council
 - 3/1/24: TCDC submits revised final report to A&S Council; final TCDC meeting
 - 3/7/24: Discussion of final report at A&S Council meeting
 - 4/4/24: Vote on new Arts & Sciences Curriculum
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Provisional Implementation Timetable (all dates are estimated)

Spring-Summer 2024

- 5/1/24: A&S administration, in consultation with ECASC, forms and charges an implementation committee comprising faculty, administrative leaders, academic deans, representatives of support services (e.g., registrar's office, admissions, student affairs), and students. That committee prioritizes the following tasks.
 - Identifying the governance / support structure for Constellations.
 - Determining whether oversight of Century Courses will be the responsibility of the Courses committee or of a new committee.
 - Recommending potential ways of supporting faculty and departments as they develop new courses and revise existing courses.
 - Identifying infrastructural challenges that would need to be addressed by the onset of the new curriculum (e.g., registration/scheduling rules).

The Arts & Sciences Curriculum

- 6/1/24: Release of “Call for Faculty Participation in Constellations”, which invites faculty members to propose Constellations that will begin in the 2025-2026 academic year.
- 6/1/24: Process for establishing Century Courses provided to departments, so that they can begin planning those courses
- 7/1/24: Implementation committee works with the Admissions Office to develop descriptions of the new curriculum for prospective students

Fall 2024

- 9/1/24: Courses Committee begins process of mapping the new distribution codes to existing courses.
- 9/1/24: Submission deadline: Applications for new Constellations programs.
- 10/1/24: Departments submit their provisional plans for 2025-2026 Century Courses to the Courses Committee.
- 10/1/24: Appointment of a faculty director for Constellations.
- 10/15/24: Thompson Writing Program faculty finalize learning objectives for first-year writing; submit plan for revised Writing 110 to Courses Committee.
- 11/1/24: Recruitment of staff positions for Constellations begins.
- 11/1/24: Announcement of Constellations programs for the 2025-2026 year; invitation to faculty to propose courses (or link their existing) courses to Constellations.
- 11/15/25: TWP faculty identify points of integration between first-year writing and Constellations.

Spring-Summer 2025

- 1/15/25: Fall 2025 Century Courses finalized
- 2/1/25: Staff support for Constellations in place
- 3/1/25: Constellations staff work with faculty to identify experiential opportunities
- 4/1/25: Implementation committee works with Office of Assessment (and relevant administrators) to develop an assessment plan for the new curriculum

Fall 2025

- **New curriculum in place for entering students (class of 2029)**

Appendix 5. Implementation and Governance Recommendations

Here, we outline some initial recommendations for implementation of the different elements of the proposed Arts & Sciences curriculum. We emphasize that implementation falls outside the remit of our committee; instead, the administration and Council should jointly establish processes for implementing and supporting the new curriculum. **We provide these provisional recommendations so that our faculty colleagues can more readily visualize the challenges and opportunities associated with the transition to a new curriculum.**

Liberal Arts / Distribution Categories. Determining how courses map onto distribution requirements should remain within the province of the **Arts & Sciences Courses Committee**, which currently fulfills this role for Curriculum 2000. Based on conversations with current and former members of that committee, the initial assignment of codes to courses will be relatively straightforward, in that most of the existing AOKs can be readily mapped onto the new distribution categories. Furthermore, the absence of MOI codes in the new curriculum simplifies that committee's task for newly created courses.

Century Courses. Support for creation and evaluation of Century Courses could also be the responsibility of the **Courses Committee**. As noted in the previous section, the simplification of the coding process would allow this committee to take a more active role in supporting pedagogy in Arts & Sciences, particularly by helping ensure that departmental Century Courses fit the goals for that program. Toward that end, we urge that the Courses Committee be charged with annual review of the Century Courses (as a whole), so that we can learn from what courses are offered, how students enroll in those courses, etc. Faculty governance will be critical not only for ensuring maximal impact of Century Courses themselves but also for disseminating innovative elements of Century Courses more broadly throughout Duke.

Constellations. The introduction of the first-year Constellations will pose the most extensive implementation challenges for the new curriculum, both in terms of resources needed and faculty governance.

- **Faculty leadership.** The A&S administration – in consultation with A&S Council – should identify a faculty director for Constellations. The director should have a broad perspective on undergraduate education, a demonstrated track record of administrative acumen, and the ability to connect across the full breadth of our undergraduate programs. The director would work with faculty in all the Constellations (each of which should have a primary faculty contact) to support their classes and experiences, to identify new classes that could be matched to each Constellation, and to ensure the overall quality of the program. The director would also partner with the office of assessment to develop a program for continuous review and improvement (i.e., formative assessment).
- **Staff support.** We recommend beginning the Constellations program with two full-time staff positions. A *program manager* position would be tasked with overseeing the experiential elements of the first-year curriculum, helping ensure that each Constellation provides creditable opportunities for student experiences outside of the classroom. A *staff assistant*

position would support the logistical elements of Constellations courses, including course scheduling, liaising with the registrar's office, updating the program webpage, etc.

- **Faculty governance.** A&S Council should charge a new committee with the oversight of the Constellations program. This committee should primarily comprise faculty with expertise in undergraduate education, but its membership should also include representation from academic deans, advising, student affairs, the office of assessment, and other key contributors to our students' academic and non-academic experiences. This committee would have dual roles: (1) ensuring that proposed Constellations are well matched to the goals of the program, and (2) identifying ways of supporting and improving the program based on regular assessment of student experiences and outcomes.

Language. Because the Language requirement is largely unchanged, there will not be major implementation challenges associated with the transition to the new curriculum. Attention will need to be paid to patterns of enrollment, particularly for those students who begin language sequences at the 300-level, and the availability of courses to support those students.

Writing. Similarly, the Writing requirement is largely unchanged (in its formal structure), so the associated implementation challenges reflect consideration of how writing connects to other aspects of the curriculum.

- **First-year writing.** TCDC supports TWP's aim to revise first-year writing learning outcomes to better meet contemporary complexities surrounding written, visual, and verbal communication and to ensure writing instruction is delivered in alignment with current best practices in writing pedagogy. Moreover, TCDC supports the TWP plan to renumber first-year writing from Writing 101 to Writing 110 to reflect this redesign and to acknowledge the increasing complexity and dynamic contexts for written, verbal, and visual communication. These changes – along with the embedding of writing courses in Constellations – will help ensure that Writing instruction remains a signal feature of the first-year experience.
- **Upper-division writing.** The continuing requirement for two W-coded courses beyond first-year writing signals Duke's commitment to preparing undergraduates to engage in writing as a sustained and iterative endeavor. TCDC recommends each major, minor, and certificate design, with collaboration and support from TWP, communication-related learning outcomes tailored to their discipline and degree pathway. While components of a communication-enhanced curriculum may include W-coded courses, this tailored approach offers the opportunity for units to structure and make more visible the nuanced, formative, and longer-term communication-related learning outcomes nested within sequences of coursework for degree pathways.

References

Many comments below are drawn from the notes of meetings between TCDC members and stakeholder groups (e.g., the departments and schools who support Trinity students; student focus groups; etc.). Such notes are not verbatim quotations from recordings/transcripts and are not attributed to specific departments or individuals.

¹ <https://trinity.duke.edu/about>

² Meeting with Trinity Academic Deans (3/1/23): *"To what extent can we give students ownership of their own education; i.e., the ability to construct their own pathway toward their goals? A goal is to promote student voice, agency, and ownership of their educational journey. How do we build that into a curriculum while still offering curricular content and structure?"*

³ Focus group report prepared by Trinity Office of Assessment (4/26/23): *"Major Commonalities Among Focus Groups Regarding [Belonging]: The importance of relationships between peers and professors to build community; The importance of intellectual community; Value of experiential learning; ..."*

⁴ Comment from TCDC department meeting: *"Students are anxious, afraid of the future and we need a restructuring of the curriculum to create more vibrant communities (communities of practice, living-learning communities, connecting with communities within and beyond our current institutions, etc.). Since students 'meander', restructuring is crucial."*

⁵ Hefner, J., and Eisenberg, D. (2010). Social Support and Mental Health Among College Students. *American Journal of Orthopsychiatry*, 79, 491-499. <https://doi.org/10.1037/a0016918>

⁶ Excerpt from report summarizing Spring 2023 student focus groups: *"Students feel a sense of belonging when they have strong relationships with their instructors, especially in smaller classes and seminar-style courses. These relationships can extend beyond the classroom and contribute to a larger sense of community."*

⁷ <https://today.duke.edu/2023/08/how-depolarize-political-toxicity-social-media>

⁸ Lasso, T. (2020): *"But then one day, I was driving my little boy to school and I saw this quote by Walt Whitman, and it was painted on the wall there. It said, 'Be curious, not judgmental.' ... All them fellas that used to belittle me, not a single one of them were curious. ... 'Cause if they were curious, they would've asked questions. You know? Like, 'Have you played a lot of darts, Ted?'"*

⁹ Student comments from conversation with Gary Bennett and David Malone (3/8/23): *"Focus has been on doing things, learning how to gain skills and 'do' things. There are no incentives for curiosity and 'radical play.' Would like to see curiosity be a bigger factor in classes. The curriculum should focus more on curiosity, small group discussions and learning for the sake of learning."*

¹⁰ Notes from conversation with Trinity student (Junior, submitted 5/4/23): *"If we had absolute freedom to choose courses we'd stay the same people we were in our first year. The value of required courses... is much less if you take them late in your career; maybe require students to take such courses in their first two years; this could be a real challenge for students in majors that require a lot of pre-reqs and courses."*

¹¹ Notes from conversation with Trinity student (3/29/23): *"You come to Duke thinking you will get a liberal arts education but you don't. Partly because you can take reqs whenever you want; students take the ones they care about soon and delay the ones they don't; so they don't actually serve any purpose of exploration."*

¹² Meeting with Trinity Academic Deans (3/1/23): *"[We should be better at] moving students from their entry point at Duke, which often involves a sense of impostor syndrome, to a point where they can frame their experience in a way that tells a cogent story about what their experiences and goals. This is a growth process – a developmental process that our students need to experience. We need to find a way to build this development over time into the curriculum."*

¹³ Comment from TCDC department meeting: *"Impossible to provide a 'complete' education; we should be teaching students how to teach themselves, in a way that prepares them for life experiences that will necessarily span disciplines."*

¹⁴ Comment from Trinity faculty member (2/25/23): *"The stress on epistemic humility, reflection/integration, and attention to simplifying the structure of requirements all resonated. ... It's implicit in the report, but that act of question asking, and its connection to different ways of investigating, knowing, recognizing the limits to knowing,*

and also updating/integrating/synthesizing what we know (including across the boundaries of different epistemologies), seems crucial.”

¹⁵ Comment from Trinity faculty member (3/15/23): *“I especially like essential feature #1: epistemic humility. One particular thing that could come out of that is greater appreciation for intellectual history, and how ideas change over time as people discuss them.”*

¹⁶ Comment from Trinity faculty member (10/21/22): *“More specifically, the aim is to foster students’ commitment to the value of critical thought and reasoned discourse... that becomes a central and defining element of one’s identity, such that students hold themselves accountable for developing and consistently applying appropriate epistemic cognitions and evaluative standards for making meaning of information and judging among competing claims based on reasoned argument and evidence. Developing a rationalist identity as an educational goal matches well with advances in our understanding of human development, particularly that identity formation is the fundamental developmental task of emerging adulthood.”*

¹⁷ Sanford, T. (1984). Speech to Duke faculty.

¹⁸ Comment from TCDC department meeting: *“High-quality teaching is essential to the success of any curriculum.”*

¹⁹ Comment from TCDC department meeting: *“[The burden across many requirements is] almost punitive to the students. It is right on the edge of catastrophic. Faculty would be worried about doing anything more restrictive, moving forward. There are opportunities to be had if some of those constraints are relaxed.”*

²⁰ Comment from Trinity Faculty member to faculty survey: *“Just trust your faculty and build in... a couple of opportunities for a deep dive into something that individual faculty members are excited about. With an engaged, excited faculty member EVERYTHING is relevant to whatever problems we’re facing in the greater culture.”*

²¹ As one salient example of the passage of time, the introduction to Curriculum 2000 calls out “e-mail” as one example of an extraordinary technical advancement that promises to transform students’ lives.

²² Excerpt from report summarizing Spring 2023 student focus groups: *“[S]tudents generally agreed with the Trinity curriculum’s philosophy of requiring a variety of learning experiences. They expressed that it allowed them to explore different areas of study and meet new people. Some also mentioned that it helped them discover new interests and pursue different majors.”*

²³ Excerpt from report summarizing Spring 2023 student focus groups: *“[S]tudents emphasize the importance of a well-rounded education that exposes them to a variety of subjects, including those outside of their major. They value taking courses in areas like hard science and math, even if those courses are not directly related to their major because it may be relevant to them later in terms of connecting with colleagues, or supervising others who have a different specialty than them.”*

²⁴ Excerpt from report summarizing Fall 2023 student focus groups: *“[S]tudents who participated showed a deep awareness and concern for academic experiences they might be missing out on because of how they choose their classes. Students want to take a breadth of courses, they came to Duke for the academic environment and to take advantage of what Duke has to offer, don’t assume students have to be forced to take a breadth of courses, assume that the system incentivizes them not to.”*

²⁵ Excerpt from report summarizing Spring 2023 student focus groups: *“[S]tudents feel that the curriculum should encourage exploration but be flexible enough to allow students to make mistakes and go down different paths.”*

²⁶ Excerpt from report summarizing Spring 2023 student focus groups: *“Students mentioned that signing up for classes can be challenging when trying to balance major requirements and classes of personal interest. They have to prioritize requirements over personal interests, which can be frustrating.”*

²⁷ Excerpt from report summarizing Fall 2023 student focus groups: *“Students desire more courses designed for non-majors or introductory courses, which should prioritize real-world applications of knowledge over discipline-specific research. For example, a public policy student in a biology class would benefit more from a practical project than from theoretical content. There’s also a strong desire for courses that accommodate students from diverse educational backgrounds, including those from under-resourced high schools who might not have the academic background to jump into a calculus class right away.”*

²⁸ Comment from TCDC department meeting: *“...there is a general lack of understanding by both students and faculty about the intent of course codes. The meaning of course codes has drifted apart from their original intent.”*

- ²⁹ Comment from TCDC department meeting: *“If the next curriculum involves some version of codes, the committee would recommend that codes expire after a certain amount of time or upon change of instructor of record, except where the department teaches a standard syllabus, regardless of the instructor (i.e. introductory courses). As things stand, the code lives with course forever and sometimes new faculty inherit a course and teach without knowing and/or adhering to what the attached codes are; particularly problematic for W and R codes.”*
- ³⁰ Comment from meeting with department in Spring 2024: *“What if a century course is equally divided between two areas – so ½ of one code and ½ of another? Would the committee consider having this kind of Century course? The student would then have to take 1 more course in either of the areas in order to satisfy the area. They made the argument that for interdisciplinary departments this would be highly appealing and would allow them to offer a better century course. They even argued that all century courses should have two codes and only count for one requirement in each. This would solve the issue of students potentially only taking one course in a specific code in their entire Duke career.”*
- ³¹ Comment from meeting with students in Spring 2024: *“Can Century Courses be taken S/U? [Students would appreciate this flexibility.]”*
- ³² Excerpt from report summarizing Fall 2023 student focus groups: *“The coding system for courses at often leads to confusion and a disconnect between the expectations set by course labels and the actual content delivered. Students find that the designated codes, like the Ethics code, don’t always align with the course focus. This raises questions about the underlying goals of these categorizations. For instance, courses with an ethical inquiry label vary widely, lacking a clear, overarching concept, which leads to uncertainty about the intended learning outcomes.”*
- ³³ Data on course code frequencies provided by TCDC member Jennifer Hill, Director of Trinity’s Office of Assessment.
- ³⁴ Excerpt from report summarizing Spring 2023 student focus groups: *“Students emphasized the importance of building connections and relationships with other students, professors, and members of the Duke community. They noted that these relationships can lead to a sense of belonging and can help students make the most of their Duke experience.”*
- ³⁵ Excerpt from report summarizing Fall 2023 student focus groups: *“Students who attended the townhall events found that the primary goals and values of the first-year academic experience, revolve around creating a foundation that is both interdisciplinary and community-oriented. Many students praised the FOCUS program for fostering a close-knit learning community, though some expressed concerns about the exclusivity and application barriers, which could deter participation. Students feel that FOCUS while beneficial, can limit future course choices. They expressed a desire for a more inclusive program with the same structure that does not require an application process. Students voiced the desire for a well-rounded education, inclusive of both humanities and science courses. Most of all, students emphasized the cultivation of community.”*
- ³⁶ The key themes extracted from Spring 2023 student focus groups included: desires for (a) interdisciplinary courses, (b) small classes, and (c) opportunities to connect course material to real-world applications, along with beliefs in the value of (d) relationships and community and (e) academic exploration.
- ³⁷ Hu, S., Cai, D., Zhang, X. C., & Margraf, J. (2022). Relationship between social support and positive mental health: A three-wave longitudinal study on college students. *Current Psychology*, 41(10), 6712-6721.
- ³⁸ Comment at 12/7/23 Arts & Sciences Council meeting: *“We should support bridge classes that connect multiple perspectives.”*
- ³⁹ Comment from TCDC department meeting: *“Example of when students react to a topic and note that they are discussing/studying it in another class. Connecting the dots – giving students the ability to take things that are all over the place and connect them. Connect ideas across classes; not situated in one discipline.”*
- ⁴⁰ Chamberlin, K., Yasué, M., & Chiang, I. C. A. (2023). The impact of grades on student motivation. *Active Learning in Higher Education*, 24(2), 109-124.
- ⁴¹ The relevant text from our interim report is excerpted here: *“Our committee believes that any new curriculum should recognize two self-evident truths. First, our students study and live at Duke, an institution existing simultaneously within the American South and Global North. Our institution’s history has been shaped by pressures from its community, state, and nation; none are restricted to our institution alone, but their combination informs the Duke experience. Second, our students experience a new set of societal challenges from those present at the time of C2000. Some of those challenges reflect evolving perspectives on persistent*

problems; as examples, scholarship on systemic racism and climate change (including leadership on these issues by Duke faculty) has changed the nature of related discourse. Yet other challenges are new for our times, such as misinformation driven by social media. To meet these challenges – and the others that our graduates will encounter – they will be well-served by an education that connects them to a diversity of thought and experiences and helps them incorporate those experiences into their own perspective.”

⁴² McChesney, E., & Mayhew, M. (2023). 19. Examining the effects of first-year high-impact practices on student outcomes. *Research Handbook on the Student Experience in Higher Education*, 268.

⁴³ These learning objectives were recommended by the Thompson Writing Program and would be subject to revision based on TWP planning for first-year writing.

⁴⁴ Comment from TCDC meeting with Certificate directors, who saw Constellations as a good opportunity for engaging with first-year students.

⁴⁵ Curriculum 2000 has two requirements in the first year – one seminar and one writing course – but otherwise has no temporal structure. See <https://trinity.duke.edu/undergraduate/academic-policies/curriculum>.

⁴⁶ Comment from TCDC department meeting: *“Students now need perhaps more and/or different attention to writing than we currently have in our curriculum. They are reading less in general and so that hampers their writing development, and all Duke graduates should be able to write persuasively and concisely and take into account evidence.”*

⁴⁷ Comment from meeting with DSG leadership, Spring 2024: *“A student comes in ready to take a 300-level course in X, and after completing that course is faced with a decision about whether to take a second one or to start a new language. Would it be acceptable to take 101 and 102 in the new language and then stop if it turned out they did not want to move on to the 200 level? The thought was that some students might miss out on the opportunity to try a new language because they will want to get the requirement done by taking a second 300-level course in the first one, whereas committing to the second one ahead of time may be unappealing.”*

⁴⁸ McChesney, E., & Mayhew, M. (2023). 19. Examining the effects of first-year high-impact practices on student outcomes. *Research Handbook on the Student Experience in Higher Education*, 268.

⁴⁹ Comment from TCDC department meeting: *“Elimination of grades as a response to the current pressures on students toward pre-professionalism and competition could enable/encourage more experimentation by students.”*

⁵⁰ Comment from TCDC department meeting: *“Students seem to care about grades more than anything else and they have a sense from peer-networks or social media where they can find ‘easy As.’ It seems like this emphasis has only increased in recent years. Grade inflation is part of this. Grades are an obstacle to learning at this point.”*

⁵¹ Comment from TCDC department meeting: *“Grading a major area of concern; students have increased stress over grades and have decreased flexibility about what constitutes a good grade; their focus on grades is detrimental to their education and their mental health.”*

⁵² Comment from TCDC department meeting: *“Overarching issue on grades – so much emphasis on getting the A. There’s often not a focus on what they’re learning, more on the A. ‘I hate that they will be upset if I give them a lower grade’. Grades in general should be addressed in the curriculum.”*

⁵³ Excerpt from report summarizing Spring 2023 student focus groups: *“There were many themes tied to grading: (1) pressure to maintain grades affects students ability/desire to take academic risks, (2) grading systems can make it difficult for them to feel academically vulnerable in classes, (3) steep grading curves can facilitate the presence of imposter syndrome, feelings of inadequacy and ultimately non-belonging at Duke without a proper support structure. Grading seems to be at the heart of students’ [un]willingness to explore new classes and develop a breadth of experience at Trinity.”*

⁵⁴ <https://www.chronicle.com/article/the-real-problem-with-grade-inflation/>

⁵⁵ <https://today.duke.edu/2003/01/20030128.html>

⁵⁶ <https://yaledailynews.com/blog/2023/11/30/faculty-report-reveals-average-yale-college-gpa-grade-distributions-by-subject/>

⁵⁷ <https://www.dukechronicle.com/article/2023/09/duke-university-grade-inflation-students-covid-19-latin-honors-cutoffs-rising>

⁵⁸ Comment from TCDC department meeting: *“There is broad concern about students’ increased sensitivity to grades. Students seem less likely to explore, at least in part because they are worried about getting grades lower than A.”*

⁵⁹ See <https://www.reddit.com/r/duke/new/> or other social media sites for examples.

⁶⁰ <https://www.npr.org/2023/03/26/1164832694/to-help-new-students-adapt-some-colleges-are-eliminating-grades>

⁶¹ Before 2002, MIT had an ungraded first year. MIT still has an ungraded first semester, but now allows students more flexibility in choosing which grades (in their second semester and beyond) can count toward their GPA: <https://registrar.mit.edu/classes-grades-evaluations/grades/grading-policies/first-year-grading> . While this has been touted as a way of easing the transition to college, there are concerns that it diminishes motivation: <https://thetech.com/2018/04/19/pnr-falls-short> .

⁶² Comment from TCDC department meeting: *“Advising should be part of this and should be much better and more tailored to students’ individual interests and plans than it is now. We no longer have a 19th century notion of what an educated person needs to know. Students need to know specific things in the light of their specific career goals and abilities. We need to advise with that in mind.”*

⁶³ Comment from TCDC department meeting: *“First and second year advising is random, and students are significantly influenced by their advisors in uneven ways. We can’t revise the curriculum without revising advising; they are inextricably linked.”*

⁶⁴ Comment from TCDC department meeting: *“Faculty would like to have a lot more connections with students, not just those in [] classes. Advising is good or this. Advising should be a paid (not volunteer) position, so there are more opportunities to interact with students. There needs to be compensation and built-in incentives. We’re not meeting their needs when it comes to mental health and advising.”*

⁶⁵ Excerpt from report summarizing Fall 2023 student focus groups: *“Students desire more robust advising systems that have a deep understanding of general education courses and how they might complement students’ chosen paths. Students perceive that they are preoccupied with making “good choices” to ensure timely graduation and desire guidance that goes beyond making “good” course choices. They feel that there is significant inconsistency exists in the quality of advising, as the level of guidance varies greatly from one advisor to another. Students desire advisors that have knowledge of courses that align with their academic pathways.”*

⁶⁶ Comment from TCDC department meeting: *“Advising is very patchy. One faculty is teaching a first-year seminar and students are asking them questions about STEM courses because they can’t reach their advisors. Students just want to think out loud. They’re scared and want/need to talk to a person.”*

⁶⁷ Comment from TCDC department meeting: *“Developing a new curriculum requires addressing the student culture (countering “effortless perfection”). For an excellent curriculum to be effective for students, the campus cultural undercurrents must also be addressed.”*

⁶⁸ Comment from TCDC department meeting: *“Mental health is also front and center for students in a way that it hasn’t historically been—they both seem to struggle with their mental health more and be more comfortable articulating those struggles. Some of this may be due to the heavier loading they are carrying (see above also); curricular demands have not decreased, but extracurricular and co-curricular demands have increased. There are also likely more external factors (i.e., familial financial concerns) now.”*

⁶⁹ Comment from TCDC department meeting: *“Students experience Duke during a period of very rapid personal change; at age with onset of a mental health crisis most likely; rising identities; realize things about themselves they never knew. Difficult to deal with anxiety; suddenly in room with whole bunch of curve setters; transitioning to become independent Prior to Duke, students were (generally) taken care of and championed.”*

⁷⁰ Comment from TCDC department meeting: *“Most students want transactional advice, facts and information, rather than education about the liberal arts curriculum. The curriculum itself is not causing the transactional approach, but perhaps the nature of volunteer corps. But then, instructors themselves may not even know the course codes, which causes cynicism and transactional approach. Students who meet the advisor more often than required, advising is more transformational rather than transactional.”*

⁷¹ Comment from TCDC department meeting: *“Students are anxious, afraid of the future and we need a restructuring of the curriculum to create more vibrant communities (communities of practice, living-learning communities, connecting with communities within and beyond our current institutions, etc.). Since students ‘meander’, restructuring is crucial.”*

⁷² Comment from TCDC department meeting: *“First and second year advising is random, and students are significantly influenced by their advisors in uneven ways. We can’t revise the curriculum without revising advising; they are inextricably linked.”*

⁷³ Comment from TCDC department meeting: *“Advising should be a paid (not volunteer) position, so there are more opportunities to interact with students. There needs to be compensation and built-in incentives. We’re not meeting their needs when it comes to mental health and advising.”*

⁷⁴ Bresciani, M. J. (2007). *Assessing student learning in general education: Good practice case studies* (Vol. 105). San Francisco: Jossey-Bass.

⁷⁵ Suskie, L. (2018). *Assessing student learning: A common sense guide*. San Francisco: John Wiley & Sons.

⁷⁶ Palomba, C. A., & Banta, T. W. (1999). *Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education*. Higher and Adult Education Series. San Francisco: Jossey-Bass.

⁷⁷ Examples include:

<https://provost.cornell.edu/assessment/core-assessment-committee-resources/>

<https://www.northwestern.edu/provost/about/committees/assessment-and-accreditation.html>