I. Guiding Principles

The College of Arts and Sciences (A&S) core curriculum is the heart of a liberal arts education at CU Boulder. The revised core, as proposed here, allows students to pursue their passions while also ensuring that they venture into diverse areas of learning. Its flexibility enables students to explore areas of particular interest in depth, and in so doing facilitates the addition of minors or second majors. The proposed core is simple, streamlined, rigorous, and timeless; as society changes and technology advances, the courses of study that comprise the core will evolve naturally within the core framework. The proposed core reflects the A&S identity and learning goals.

I.A. Identity Statement

The College of Arts and Sciences at the University of Colorado at Boulder consists of teachers, scholars, researchers, and artists who strive to understand, and find meaning in, the natural world, social structures, history, art, morals, and the human experience. The College comprises a wide range of departments and programs, but woven throughout are the College’s core values: academic excellence, intellectual honesty, creative freedom, open inquiry, and the pursuit of knowledge. We are dedicated to a pedagogy that recognizes our responsibility in developing a diverse community of students and scholars. Our students can expect to have their critical thinking skills honed, their understanding of themselves deepened, their vision of the natural world and its peoples expanded, and their ability to communicate enhanced. As a result, our graduates leave the College as well-rounded adults, prepared to participate productively as citizens in a democracy and to flourish in their careers.

I.B. Learning Goals

- Learning Goal 1: Develop the skills of communication, expression, and reasoning.
Students hone their communication skills through writing and speaking for various purposes (informing, instructing, persuading) and audiences (academic, civic, professional). They learn to design their message ethically and effectively using appropriate evidence and technologies, which may include alphabetic, visual, and aural elements. Students explore the breadth of human experience through diverse expressive forms. To develop problem-solving and analytical skills, students exercise various forms of reasoning—logical, computational, and mathematical.

- Learning Goal 2: Understand our world, in all its dimensions, through critical inquiry.

  Students apply humanistic and scientific principles and methods to investigate local and global issues. Through exposure to multiple viewpoints, intellectual frameworks, and cultural contexts, students prepare to respond ethically, creatively, and collaboratively to open-ended questions.

II. Proposed New Core Curriculum

In accordance with the identity statement and learning goals, the following A&S core curriculum is proposed. All courses in the core must be taken for a letter grade, and passed with a D- or higher. In addition to satisfying the core requirements, in order to graduate students must satisfy the requirements of their major and must earn at least 120 credits overall.

- Distribution: 36 credits (includes 12 credits from the major)
- Skills: 9 credits
- Total: 45 credits (includes 12 credits from the major)

II.A. Distribution Requirement

The distribution requirement exposes students to different disciplines and methodologies, and is designed to promote authentic breadth in a student's education. Students pursue areas of study that are distributed across the A&S curriculum, but also have the ability to focus on one or more areas outside their major division.

Students must pass a minimum of 12 credits in each of the three A&S divisions (Arts & Humanities [AH], Social Sciences [SS], and Natural Sciences [NS]). At least four different course prefixes must be represented in a student’s distribution requirement coursework. No more than two lower-division (1000- and 2000-level) courses from a single unit may count toward the distribution requirement. Distribution courses include all A&S courses that count toward a major, minor, or certificate in A&S, as well as other courses that are nominated and accepted for inclusion in the core, as described in Appendix A.

As part of, or in addition to, the 36-credit distribution requirement, students must meet the Natural Sciences lab requirement. As part of, or in addition to, the 36 credits, students must meet the diversity requirement, as described in Appendix B.

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1 A “prefix” refers to the abbreviation before the course number, e.g. CHEM, RUSS, PSCI.
2 A “unit” refers to a department or program.
Natural Sciences Lab Requirement
Students must pass a Natural Sciences lab. The lab requirement is satisfied with a stand-alone lab of at least 1 credit, or another course with a substantial lab component, as approved by the Natural Sciences division. The lab requirement is broadly defined to include different types of hands-on learning, including – but not limited to – bench work, field work, instrumentation, or data analysis.

Diversity Requirement
Students must pass the diversity requirement, which is described in Appendix B. The diversity requirement is satisfied with 6 credits from a list of courses that have been identified as fulfilling diversity learning goals. Students may double-count diversity courses for both the diversity requirement and the applicable distribution requirement.

II.B. Skills Requirements
In accordance with the A&S learning goals, the skills requirements serve to improve students' capabilities in communication, expression, and reasoning. A single course may not be used to satisfy both a skills and a distribution requirement.

Written Communication
Students must pass 6 credits of written communication, including at least 3 upper-division credits. See Appendix C for a detailed description of the Written Communication requirement.

Quantitative Reasoning and Mathematical Skills (QRMS)
Students must pass 3 credits of quantitative reasoning and mathematical skills. See Appendix D for a detailed description of the QRMS requirement.

Foreign Language
Students must satisfy the Minimum Academic Preparation Standards (MAPS) requirement in foreign language, as described in Appendix E. The Foreign Language requirement is a core curriculum requirement only for the very few CU students who are not subject to MAPS.
Appendix A. Distribution Courses

This appendix describes the categories of courses that satisfy the distribution requirement.

1. *A&S courses that count for an A&S major, minor, or certificate*
   Any A&S course for which the credits count toward a major, minor, or certificate within A&S also counts for distribution credit. This includes both required courses and courses that are accepted as elective credit toward a major, minor, or certificate.

2. *A&S courses that do not count for a major, minor or certificate*
   Any A&S course that does not count for an A&S major, minor, or certificate must be vetted for inclusion in the core.

3. *Courses outside of A&S*
   Any course outside of A&S that is nominated for inclusion in the distribution requirement must be vetted by an A&S faculty committee. This includes all non-A&S courses not currently in the core, even if they already count toward a major, minor, or certificate within A&S.

4. *Grandfathered Courses*
   All courses that are in the current content areas of the core will count for distribution credit for a period of 5 years, beginning the semester the new core is first implemented. After this 5-year period, any courses that do not satisfy #1 above will be vetted for inclusion in the core, at the request of the offering unit.

5. *gtPathways (Guaranteed Transfer)*\(^3\) courses
   Transfer credits earned from gtPathways courses satisfy the same Distribution or Skills requirements as the course(s) for which transfer credit is awarded.

6. *Divisional Assignments*
   All courses that satisfy a core distribution requirement must be assigned one or more divisions for which the credits count. Divisional assignments will be made by an A&S faculty committee, with input from the unit that offers the course. Courses may be accepted for core credit in more than one division, but students must choose a single division in which to count the credit.

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\(^3\) “Guaranteed Transfer” and “gtPathways” refer to the general education curriculum approved by the Colorado Department of Higher Education. See highered.colorado.gov/academics/transfers/students.html.
Appendix B: Diversity Requirement

Students are required to pass a minimum of 6 credits in diversity courses. These courses may double-count toward distribution requirements.

The diversity requirement addresses the need to prepare students to navigate the complexities of living and working in a diverse and increasingly interconnected world. Diversity courses are designed to provide students with the necessary understanding and analytical skills to successfully function and lead in a multicultural, multiethnic, transnational, and global society. The courses promote historical and/or contemporary understanding of how social differences shape, and have been shaped by, political, economic, and cross-cultural relationships within the United States and the world. Generally courses will explore the ways in which marginalization has occurred, and the reasons for this marginalization.

The U.S. perspective (3 credits) will include courses that promote historical and/or contemporary understanding of how social differences have shaped social, political, economic, and cross-cultural relationships within the United States. Courses must substantially address one or more forms of diversity (for example: race, ethnicity, gender, gender identity, sexual orientation, socioeconomic class, religion, disability).

The global perspective (3 credits) addresses the need for students to learn and think critically about historical and/or contemporary global forces and transnational connections. Courses might: 1) focus in-depth on a particular country or culture outside the U.S., placing it within transnational and global context; 2) address a problem or phenomenon in the context of two or more countries, cultures, or regions; 3) examine global affairs through a comparative framework; 4) be part of a study abroad experience with a substantial cross-cultural component.

Courses nominated for inclusion in the diversity requirement are vetted by an A&S faculty committee. Existing courses in the "Human Diversity" category of the current core curriculum are grandfathered in for a period of 5 years, beginning the semester the new core is first implemented.
Appendix C: Written Communication Requirement

Students must pass 3 lower-division and 3 upper-division credits in courses approved to satisfy the written communication requirement.

Writing is a skill that is fundamental to all intellectual endeavors. In fulfilling this requirement, students hone their communication skills by writing for various purposes (informing, instructing, persuading) and audiences (academic, civic, professional). They learn to design their message ethically and effectively using appropriate evidence and technologies.

Students may satisfy the lower-division requirement by passing or receiving placement credit (as determined, for example, by scores on AP or IB exams) for one of the approved courses, or by earning a high school International Baccalaureate diploma. Students may satisfy the upper-division requirement by passing one of the approved upper-division courses, or by passing a written communication proficiency exam.

Courses nominated for inclusion in the written communication requirement are vetted by an A&S faculty committee. Existing written communication courses are grandfathered in for a period of 5 years, beginning the semester the new core is first implemented.
Appendix D: Quantitative Reasoning and Mathematical Skills (QRMS) Requirement

Students must pass a minimum of 3 credits in courses approved to satisfy the QRMS requirement.

This requirement has two principal objectives. The first is to provide students with the analytical tools used in core curriculum courses and in their major areas of study. The second is to help students acquire the reasoning skills necessary to assess adequately the data which will confront them in their daily lives. Students completing this requirement should be able to: construct a logical argument based on the rules of inference; analyze, present, and interpret numerical data; estimate orders of magnitude as well as obtain exact results when appropriate; and apply mathematical methods to solve problems in their university work and in their daily lives.

Students may fulfill the requirement by passing or receiving advanced credit for one of the approved courses or sequences of courses, or by passing the CU-Boulder QRMS proficiency exam.

Courses nominated for inclusion in the QRMS requirement are vetted by an A&S faculty committee. Existing QRMS courses are grandfathered in for a period of 5 years, beginning the semester the new core is first implemented.
Appendix E: Minimum Academic Preparation Standards (MAPS)

MAPS requirements are not part of the A&S core, but must be satisfied by all students; these requirements are usually satisfied in high school. The A&S MAPS requirements are as follows:4

- English: 4 units, including 2 of composition
- Mathematics: 4 units, including 2 algebra, 1 geometry, 1 college-prep math
- Natural Science: 3 units, including 2 labs (1 of which is in chemistry or physics)
- Social Science: 3 units, including 1 of US or world history plus 1 of geography (or 1 of US history plus 0.5 geography and 0.5 world history)
- Foreign Language: 3 units of a single language

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4 1 unit is equivalent to 1 semester in college or 1 year in high school.
Appendix F: Implementation Recommendations

Implementation of the revised core is outside the purview of the CCRC. Nevertheless, included in this appendix are observations and recommendations regarding its implementation.

1. Numerous peer institutions have revised their cores in recent years. Many have webpages that address the mechanics and phases involved in the transition to new core requirements. These webpages should be studied as potential models for the implementation of a new A&S core. Some of the recommendations that follow are drawn from such webpages and related materials.

2. Core Curriculum Implementation Committee: The ASC should appoint a Core Curriculum Implementation Committee (CCIC) to facilitate the transition from the current core to the new core. In addition to other members, the CCIC would ideally include at least two faculty members who served on the CCRC, as well as representatives from A&S Academic Advising, A&S undergraduate education administration, and offices such as Information Technology that will be tasked with modifying and implementing new software systems.

3. Early in the implementation process a committee of A&S faculty (possibly the ASC Curriculum Committee) should identify the appropriate division for which all existing core courses and major, minor, and certificate courses will count. It is anticipated that most courses will count toward the distribution area that corresponds with the divisional area in which the course’s sponsoring unit is housed. Exceptions to this include:
   • courses that already count for NS core credit, even if the offering unit is not in the NS division, should continue to count for NS credit;
   • courses that already count for Literature and the Arts core credit, even if the offering unit is not in the AH division, should count for AH credit;
   • courses that are nominated for inclusion both in the divisional area of the offering unit and in another division should be considered for both divisions;
   • courses that are nominated for inclusion only in a division other than that to which the unit is assigned should be considered only for the nominated division.

4. To accomplish #3, the CCIC should draft definitions of distribution areas and methodologies. The current CCRC has operated with the understanding that generally arts and humanities courses will study artistic and cultural expression, historical processes, and philosophical traditions and problems; natural sciences courses will focus on the scientific study of the natural and physical world; and social sciences courses will study individual, social, political, and economic dimensions of human activities and behaviors. Nevertheless, precise definitions of distribution areas and methodologies should be determined by the CCIC.

5. Advising and infrastructure: The proposed core revision will necessitate a comprehensive updating of core-related infrastructure, including the degree audit system. Advisor input and training will be needed.

6. Course designators: Each course that satisfies a core curriculum requirement should be listed in the catalog and in registration information with an abbreviated core designation, e.g. AH, NS, SS, W, Q, D.
7. Core curriculum information for students: Core curriculum and course registration information should be evaluated and updated for user-friendliness. A database of core curriculum courses should be easily searchable by title, department/program, requirement, and keyword. An updated core curriculum website should feature 1) banners advertising new courses, 2) a rotating list of “example courses,” drawn from a variety of units, that fulfill distribution requirements and other core requirements, 3) indication of the departments and programs where many or most of the courses will apply to a particular distribution area, e.g., “Departments and programs where many or most of the courses will apply to the Arts & Humanities distribution requirement include….,” Where possible, departments/programs and courses should appear in randomized, and not always alphabetical, format. To avoid the problem of students inadvertently enrolling in a course that is above their level, departments should publish a list of recommended courses for non-majors.

8. A committee comprised of A&S faculty should be charged with evaluating courses for inclusion in the diversity and skills areas of the core, and for identifying the appropriate A&S division for which distribution credits would count. This could be the ASC Curriculum Committee or a separate committee. In any case, it will be essential to maintain adequate representation by faculty who are involved in both teaching and scholarly work in each of the A&S divisions, by faculty with expertise in the skills and diversity areas of the core, and by faculty from non-degree-granting units such as RAPs and Honors.

9. Course nomination forms should be consistent with the core requirements; the nomination forms should not impose additional or different content requirements.

10. If the ASC Curriculum Committee retains responsibility for evaluating courses for inclusion in the core, the evaluation procedures and level of communication with units that nominate courses should be reviewed. Extreme dissatisfaction with the current course evaluation process was expressed by multiple faculty members in many different units.

11. There was considerable support among A&S faculty for the written communication requirement to focus on sentence and paragraph construction (structure, grammar, punctuation) in lower-division courses, and on discipline-specific writing and rhetoric in upper-division courses. We recommend that this feedback be considered jointly with pedagogical research that suggests that even lower division courses should pay attention to other key rhetorical skills, including analysis of and practice with various writing styles, integration of evidence, and effective development of content.

12. Some faculty do not feel that courses devoted primarily to mathematical skills should satisfy divisional distribution requirements. We recommend that the CCIC consider whether any courses that are primarily focused on mathematical content should be nominated and evaluated for distribution credit rather than being counted automatically for distribution credit.

13. External advertising: The new core should be aggressively advertised to prospective students. The College should work with offices such as Admissions and Strategic Relations to communicate features of the new core such as its flexibility and its facilitation of cross-divisional double majors and minors. Evidence emerged during the course of our committee’s work that
prospective students actively seek out such features, and that these features generally confer tangible academic, personal, and professional benefits to students.

14. There was some support in the CCRC and in various departments for raising the minimum passing grade in core curriculum courses from a D- to a C-. The CCRC discussed whether raising the minimum passing grade would enhance the rigor of the core; there was general agreement that a higher minimum passing grade would make a positive statement about the academic importance of core courses, but some CCRC members expressed concern that a higher minimum passing grade might lead to grade inflation, especially considering the weight placed on FCQ scores in teaching evaluations. The CCRC also discussed whether raising the minimum passing grade would help or harm the campus’s retention and graduation goals. On the one hand, a higher minimum passing grade might lead to a longer time-to-degree for some students, but on the other hand, a higher passing grade could aid time-to-degree by better ensuring that students have the requisite mastery of a skill or subject to succeed in more advanced coursework. Arguments in favor of raising the passing grade might include the fact that some peer institutions have a higher passing grade for core courses than A&S does, and that nationally the generally accepted minimum grade to transfer a course (core or non-core) between institutions is a C-. After weighing these various factors, the CCRC decided to retain the current D- minimum passing grade, but to recommend that this passing grade be re-evaluated at the next comprehensive review of the core curriculum.

15. A comprehensive review of the core curriculum should take place every seven years.
Appendix G: Other Recommendations

The following recommendations emerged from meetings conducted in 2015 by the CCRC co-chairs with various A&S units and offices. These recommendations pertain to issues that are not within the purview of the CCRC. We record them here merely to bring them to the attention of A&S Administration, the ASC, and A&S faculty.

Various units recommended that the College:

1. Add BS degrees. Several Natural Sciences departments visited by CCRC co-chairs Cora Randall and Ann Schmiesing in spring 2015 voiced strong support for the introduction of BS degrees. SS or AH departments polled on this issue supported the introduction of BS degrees; in many cases, faculty in SS and AH departments were surprised to learn that NS departments do not already offer BS degrees within A&S.

2. Reduce the requirement for 75 credits in coursework outside the major. Several NS departments, but also one AH department, expressed the view that decreasing the limit would benefit their students’ academic preparation by allowing them to count more credits within their major toward their degree.

3. Examine ways to minimize the duplication of programs and services offered within the College and at CU-Boulder as a whole.

4. Incorporate a “freshman seminar” into the core, when and if campus resources (funding, classroom availability) make this possible. Many units visited in 2015 expressed great interest in freshman seminars.

5. Guarantee continuing resources to all A&S units as they adapt to the evolving landscape during the first 5 years of the new core.

6. Reduce the reliance on student credit hours as the primary metric for resource distribution, and elevate the importance of factors such as scholarly work.

7. Provide more substantial, continuing, and dedicated support for course-development grants for the purpose of creating courses with diversity-related content.
Appendix H: Core Curriculum Revision Committee Membership

All members appointed by the ASC

Co-chairs: Cora Randall, Prof., ATOC, and Ann Schmiesing, Prof., GSLL
1. Kirk Ambrose, Prof., AAH
2. Suzanne Anderson, Assoc. Prof., GEOG
3. Kathryn Arehart, Prof., SLHS
4. Fran Bagenal, Prof., APS (spring 2015); Wei Zhang, Assoc. Prof., CHEM (fall 2015)
5. John R. Black, Jr., Assoc. Prof., Computer Science
6. Giulia Bernardini, Inst., HUMN/Libby RAP
7. David S. Brown, Prof., PSCI
8. John Cumalat, Prof., PHYS
9. Anne Dougherty, Sr Inst, APPM
10. Lori Emerson, Assoc. Prof., ENGL
11. Elizabeth Fenn, Prof., HIST
12. Stefanie Mollborn, Assoc. Prof., SOCY
13. Celeste Montoya, Assoc. Prof., WMST
14. Lonni Pearce, Sr. Inst., PWR
15. Robert D. Rupert, Prof., PHIL
16. Michelle Sauther, Prof., ANTH
17. Carol A. Wessman, Prof., EBIO/ENVS