## FACULTY MEETING

April 28, 2017

## Motion

The Committee on Educational Policies and Planning moves that the faculty adopt the new General Education Curriculum for Skidmore College as detailed in the February 28, 2017 Proposal.

## Rationale

The Committee on Educational Policies and Planning (CEPP) offers this new general education curriculum proposal for consideration and adoption by the faculty. Much of what is proposed is a new way of organizing what many of us already do. By reframing the general education curriculum and strengthening some areas we hope to offer significant benefits for our students, especially in their understanding of what the Liberal Arts can do; and, more specifically, how our curriculum at Skidmore provides a means of integrative and life-long learning.

Multiple assessment tools strongly indicate that our students are not meeting our Goals for Student Learning and Development, particularly in the areas of understanding "social and cultural diversity in national and global contexts," and interrogating "one's own values in relation to those of others, across social and cultural differences," and in the areas of quantitative reasoning and scientific literacy, where students are asked to "gather, analyze, integrate, and apply varied forms of information; understand and use evidence," and "to apply learning to find solutions for social, civic, and scientific problems."

The assessments that focus on social and cultural diversity include NSSE Reports (2010, 2013, and 2016), the Alumni Learning Census (2010, 2012, and 2015), the 2012 CIGU Report: Graduating Students of Color Exit Interviews, 2012 HEDS Alumni Survey, the 2009 Survey \& Analysis of Cultural Diversity Courses at Skidmore, and the 2013 Campus Climate Assessment. Skidmore students responded in the 2016 NSSE survey to "having discussions with diverse others" less often than selected peers. Seniors on the same survey indicated the institutional "emphasis on encouraging contact among students from different backgrounds" also happened less often than at selected peer institutions. Intercultural knowledge and competence was an area of concern flagged from the 2012 HEDS Alumni Survey. Similarly, working with people of different cultures has been flagged as an area of concern in the Alumni Learning Census (2010, 2012, and 2015).

For the graduating classes of 2013-2016, 46.0\% of the graduates did not take a Cultural Diversity course during their college education and $33.5 \%$ did not take a Non-Western course. Of the 2013-2016 graduates, $59.4 \%$ took only one course
combined from the Non-Western or Cultural Diversity clusters during their time at the College.

Given the assessment data and research on the impact of courses addressing diversity, CEPP strongly believes the Bridge Experience: Power and Justice requirement in the curriculum, along with a separate Global Cultural Perspectives requirement, will better support the above-mentioned student learning goals.

Both direct and indirect assessments also indicate that Skidmore students and graduates are not adequately meeting goals for quantitative reasoning and scientific literacy. These assessments include the 2014 Skidmore Scientific Literacy and Quantitative Reasoning Exam (SLQR), the National Survey of Student Engagement (NSSE), and the Alumni Learning Census (ALC). On the quantitative reasoning section of the 2014 SLQR, non-natural science majors at Skidmore scored a mean of $44 \%$ and $52 \%$ reported that they never or only sometimes used numerical information to examine real-world problems. Most natural science majors (>80\%) reported using numerical information more frequently. The natural science majors averaged a $60 \%$ on the quantitative reasoning section of the SLQR with majors from a quantitative field scoring a mean of $74 \%$. On the NSSE, Skidmore senior non-science majors reported they were less likely to use quantitative skills than peers at other colleges. Not surprisingly, alumni on the ALC self-reported low enhancement of their quantitative skills while at Skidmore.

CEPP believes that a more rigorous quantitative reasoning requirement is essential for a liberally educated student to possess to critically examine results and claims about the world, to make informed decisions and choices, to communicate quantitatively based ideas and thoughts to others, and to develop and model solutions to many of the problems we face in our societies.

In the 2014 Assessment Report on the Nature of Science Literacy Test, Skidmore students generally did well except on questions related to the definition of a theory, the definition of a law, the relationship between theories and laws, the meaning of induction/deduction, and evidence needed to prove a statement true or false. In addition, non-science majors in particular had difficulty related to experimental conditions/design. Students were especially challenged by the question related to the design of a study. CEPP believes that the proposed scientific inquiry through practice requirement strengthens those areas where our student could improve.

Finally, the Middle States Standards for Accreditation and Requirements for Affiliation require written and oral communication, technological competency, and information literacy to be addressed in the curriculum either separately or integrated into academic disciplines. These competencies are already being taught in most departments and programs but could be done so with greater intentionality.

Resources will be made available, including-but not limited to-support for faculty developing new courses, modeling interdisciplinary and integrative approaches, and the stakeholder working groups that will refine learning goals and criteria for individual courses.

The Committee on Educational Policy and Planning will review the general education curriculum one year after full implementation and then every five years after the first review.

## GENERAL EDUCATION CURRICULUM FOR SKIDMORE COLLEGE REVISED MODEL: 26 April 2017

The Committee on Educational Policies and Planning (CEPP) offers this new general education curriculum proposal for consideration and adoption by the faculty. CEPP has reflected on the thoughtful comments and concerns we have heard from faculty, administrators, staff, and students regarding prior versions of this proposal, and we have endeavored to address them in this revision. Much of what is proposed is a new way of organizing what many of us already do. By reframing the general education curriculum we hope to offer significant benefits for our students, especially in their understanding of what the Liberal Arts can do; and, more specifically, how our curriculum at Skidmore provides a means of integrative and life-long learning.

This proposal contains essentially the same number of requirements as our current core curriculum. Yet, this proposal includes a new Bridge Experience that addresses the need to better understand diversity and inclusion, and a Senior Coda that will help students reflect on their college education. It also contains a more rigorous Applied Quantitative Reasoning ( AQR ) requirement and requirements to be completed in the major. CEPP has included the latter requirements in the major to address shortcomings in our current curriculum, as reflected in recent assessment data and the 2015 Middle States report. In addition, changes to the Language Study requirement, the Writing requirement, the Global Cultural Perspectives requirement set forth in previous proposals by CEPP, that have incorporated significant input from faculty, have been included in this current proposal. CEPP has also included, after conversations with many faculty members, a Humanistic Inquiry and Practice requirement.

Resources will be made available, including - but not limited to-support for faculty developing new courses, modeling interdisciplinary and integrative approaches, and the stakeholder working groups that will refine learning goals and criteria for individual courses.

CEPP considers this proposed general education curriculum to be a significant transitional curriculum, one that anticipates future pedagogical and programmatic changes. Potential initiatives and programs, such as IdeaLab, a proposed Black Studies Program, and the on-going development of innovative courses and pedagogies, will necessarily create further opportunities for new curricular directions.

## OVERVIEW

The general education curriculum reflects the collective intellectual values of the Skidmore faculty. Both the ordering of the curriculum and the individual courses in the proposed new curriculum are intended to be logical and coherent. Although a general education curriculum (at Skidmore or elsewhere) is only one part of a student's academic and intellectual career, when it is combined with courses that constitute the major, electives, and experiences outside of classes, it completes a liberal arts education.

As articulated by the American Association of Colleges and Universities, a liberal arts education should prepare students to "deal with complexity, diversity, and change." It should offer them a "broad knowledge of the wider world (e.g. science, culture, and society) as well as in-depth study in a specific area of interest. A liberal education helps students develop a sense of social responsibility, as well as strong and transferable intellectual and practical skills such as communication, analytical and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings." ${ }^{1}$

The proposed general education curriculum has four interrelated parts: 1) Integrations, 2) Foundations, 3) Inquiries, and 4) a series of requirements to be met in the major. The goal throughout is to provide depth, breadth, and flexibility. For example, by embedding a set of requirements in the major, faculty in each discipline may determine for themselves how their majors understand, comprehend, experience, and relate to specific conventions within their discipline. There is no single college-wide formula that departments and programs must adhere to. Similarly, the principles of depth, breadth, and flexibility pervade the Integrations component of the proposed curriculum. Students will be required to think intentionally about the integration of knowledge at various points during their college careers. Ideally, the FYE will allow students to be intellectually nimble enough to make the curricular and co-curricular connections that are so central to becoming a liberally educated person. That intellectual agility will carry through to the Bridge Experience and the Senior Coda, and equip our students to make these connections throughout the rest of their education and into their postgraduate lives.

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## INTEGRATIONS

The First Year Experience (FYE) (1 course)
The Bridge Experience (1 course)
Senior Experience Coda (1 course or a capstone experience)

## FOUNDATIONS

Applied Quantitative Reasoning (1 course)
Global Cultural Perspectives ( 1 course)
Language Study (1 course)
Writing (1 course)

## INQUIRIES

Artistic Inquiry through Practice (1 course)
Humanistic Inquiry and Practice (1 course)
Scientific Inquiry through Practice (1 course)

IN THE MAJOR
Information Literacy
Oral Communication
Technology Literacy
Visual Literacy
Writing in the Major

Liberal arts requirements remain unchanged.

Maturity-Level Requirement
Courses designated in the catalog by numbers in the 100s and 200s are intended mainly for first-year students and sophomores, and those in the 300s for juniors and seniors. All degree candidates must successfully complete a minimum of 24 credit hours of course work on the 300 level at Skidmore College.

The minimum of 24300 -level course credits must be earned in Skidmore courses, not at other colleges and universities unless part of an approved study-abroad or domestic study program. The Committee on Academic Standing adheres closely to this minimum expectation, in the belief that some substantial core of the student's advanced, culminating academic work should be completed at the institution, Skidmore, which is awarding the student's baccalaureate degree. Under a few compelling circumstances (e.g., for the purpose of study away at a U.S. institution while on leave), the CAS may,
in consultation with the appropriate department chair or program director, approve up to 8 maturity-level credits for study at another institution. CAS does not limit the amount of maturity-level credit that may be awarded in transfer for students participating in an approved off-campus study program.

With the appropriate approval, students may satisfy their general education requirements while studying abroad.

All courses in the proposed general education curriculum except the FYE seminars may fulfill other requirements at the College. A single course can satisfy up to two of the general education requirements.

## INTEGRATIONS

Integrations-that is, the student's making of meaningful and productive connections among the various courses, ideas, and experiences of a liberal arts education accurately describes what we aim to foster in students at Skidmore College. To integrate knowledge is to think beyond the simplicity of a single idea to the broader and deeper concepts that animate the world. It involves the realization that to be liberally educated one must understand that concepts, principles, ideas, experiences, and values do not end at the arbitrary borders of a course or a discipline, but are interwoven in a tapestry of complex knowledge. We hope to challenge our students to be more intentional about this process and about the concepts that undergird it. As such, the principle of Integrations forms the backbone of the new proposed general education curriculum. Its core feature is a three-course sequence - a First Year Experience; a Bridge Experience (Power and Justice); and one of many Senior Experience Codas-that, ideally, will empower our student to be serious, rigorous, and creative thinkers.

## First Year Experience

(1 course)
The First Year Experience remains the same as it is in the current general education curriculum. This very successful program offers first year students an opportunity to explore a topic from an interdisciplinary perspective in a course that also provides tools and awareness critical to the transition to college life through a $4^{\text {th }}$ credit hour segment.

As is currently the case, faculty planning to teach an FYE are encouraged, yet not required, to collaborate by either co-teaching FYE courses or by organizing "clusters" of courses that speak to related themes or topics. This alignment allows students and faculty to make intellectual connections across disciplines and offers first year students an interdisciplinary and integrative introduction to the liberal arts. Faculty may decide to share guest speaker events, classroom discussions, or field trips. As is the current practice, faculty will propose their FYE courses a year in advance.

As this is a first-term-in-college course for students, the FYE will continue to provide a range of advising and mentoring experiences in the 4 th credit hour. The coursework itself will demand of incoming students a commitment to and responsibility for the world in which they live-outside the college, but also, by extension, within it.

The faculty will come from virtually every department, program, and discipline.

## Bridge Experience: Power and Justice

(1 course)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Students will take a course that interrogates the nature of power and justice - with a focus that may be historical, sociological, literary, anthropological, political, psychological, comparative, contemporary, philosophical, or all or some of these. The course will focus on power and justice through the lens of identity, (dis)ability, ethnicity, gender, nationality, race, religion, sexuality, and/or socio-economic class, and may also look at artistic expression and organized political action. Students should reflect on their own circumstances and how they influence knowledge acquisition and understanding. Students should interrogate their own assumptions and place them in relation to distinct cultural frameworks of power and justice. Ideally, students will take a Bridge Experience course in their second or third year.

## CEPP COMMENT:

Our Goals for Student Learning and Development call for our students to "understand social and cultural diversity in national and global contexts," to "interact effectively and collaboratively with individuals and across social identities," to "interrogate one's own values in relation to those of others, across social and cultural differences," and to "embrace intellectual integrity, humility, and courage." The Strategic Plan echoes these goals in its calls for inclusive excellence. Multiple assessment tools strongly indicate these goals are not sufficiently being met, including the NSSE Reports (2010, 2013, and 2016), the Alumni Learning Census (2010, 2012, and 2015), the 2012 CIGU Report: Graduating Students of Color Exit Interviews, 2012 HEDS Alumni Survey, the 2009 Survey \& Analysis of Cultural Diversity Courses at Skidmore, and the 2013 Campus Climate Assessment. For example, Skidmore students responded on the 2016 NSSE survey to "having discussions with diverse others" less often than selected peers. Seniors on the same survey indicated the institutional "emphasis on encouraging contact among students from different backgrounds" also happened less often than at selected peer institutions. Intercultural knowledge and competence was an area of concern flagged from the 2012 HEDS Alumni Survey. Similarly, working with people of different cultures has been flagged as an area of concern in the Alumni Learning Census (2010, 2012, and 2015).

Coursework that addresses diversity has been shown to result in positive learning gains. Such courses have been shown to reduce racial bias in students
(Denson, 2009; Chang, 2002; You and Matteo, 2013; Neville, et al., 2014), especially when students took additional coursework and or workshops on diversity (Neville, et al. 2014). Diversity courses are associated with gains in the critical thinking skills of students as well as their ability for complex thought (Bowman, 2010). Exposure to diversity in the curriculum has been shown to increase the ability of students to understand the perspective of others, to be open to having their views challenged, to be tolerant of differing beliefs, and to work with diverse groups of people (Gurin, Nagda, and Lopez, 2004; Hurtado, Ruiz, and Whang, 2012; Engberg and Porter, 2013). Evidence suggests the impact of diversity in the curriculum lasts well after students graduate from college (Bowman, Brandenberger, Hill, and Lapsley, 2011).

Under our current curriculum as part of the Culture-Centered Inquiry requirement, students take one course from either the Non-Western or Cultural Diversity clusters. For the graduating classes of 2013-2016, 46.0\% of the graduates did not take a Cultural Diversity course during their college education and 33.5\% did not take a Non-Western course. Of the 2013-2016 graduates, $59.4 \%$ took only one course combined from the Non-Western or Cultural Diversity clusters during their time at the College.

Given the assessment data and research on the impact of courses addressing diversity, we believe the Bridge Experience: Power and Justice requirement in the curriculum, along with a separate Global Cultural Perspectives requirement, will better support the aforementioned student learning goals.

## References:

Bowman, N. K. (2010). College diversity experiences and cognitive development: A meta- analysis. Review of Educational Research 80, 4-33.

Bowman, N. A., Brandenberger, J W., Hill, P. L, \& Lapsley, D. K., (2011). The long-term effects of college diversity experiences: Well-being and social concerns 13 years after graduation. Journal of College Student Development 52, 729-739.

Chang, M. J. (2002). The impact of an undergraduate diversity course requirement on students' racial views and attitudes. Journal of General Education 52, 21-42.

Denson, N. (2009). Do curricular and cocurricular diversity activities influence racial bias: A meta-analysis. Review of Educational Research 79, 805-838.

Engberg, M. E., \& Porter, K. B. (2013). Conceptualizing the linkages between diversity experiences and moral development. Journal of College and Character 14, 289-299.

Gurin, P., Nagda, B. A., \& Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. Journal of Social Issues 60, 17-34.

Hurtado, S., Ruiz, A., \& Whang, H. (2012). Advancing and assessing civic learning: New results from the diversity learning environments survey. Diversity and Democracy 15, 10-12.

Neville, H. A., Poteat, V. P.; Lewis, J. A., \& Spanierman, L. B. (2014). Changes in White college students' color-blind racial ideology over 4 years: Do diversity experiences make a difference? Journal of Counseling Psychology 61, 179-190.

You, D., \& Matteo, E. (2013). Assessing the effectiveness of undergraduate diversity courses using the Multicultural Experiences Questionnaire. Journal of College and Character 14, 59-66.
[See links to further resources at the end of the proposal.]

## Senior Experience Coda

(1 course or a capstone experience)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Students in the Senior Coda will further integrate many aspects of a broad liberal arts education and will have the opportunity to imagine themselves - productively, creatively, passionately, and responsibly - as citizens in the world they are facing beyond graduation. The term coda comes from dance, music, and theater, where it describes the final section of a piece that serves to summarize the preceding passages but also introduces a final, novel idea. Coda captures the intended spirit of the Senior Experience, which should strive to enable students to integrate their previous experiences at Skidmore while at the same time fostering the production of new and creative ideas. The Coda is a moment for a student to simultaneously reflect on his/her/their academic past and look to the future.

Students in their senior year will complete one of many possible Codas. There is no specific course or capstone experience that students are required to take, but they must find or design an opportunity to take ownership of their own educational experience and pursue additional steps to integrate their many experiences at Skidmore. As with
all courses and capstone experiences, faculty are free to design Codas as they see fit. The student's experience with the Coda should be informed by the following themes:

1. Relevance-Students will connect to the broader world, which may mean the broader world of academic discourse and/or the world outside of Skidmore College.
2. Integration - Students in the Coda will consciously and reflectively examine their broad and unique liberal arts education.
3. Creativity - Students in the Coda will produce original work and engage with individual ideas - in analysis, invention, or creation-in all fields.

It is expected that by their senior year, students have a firm idea of their academic interests and some idea of their post-college plans. In a Coda, students may work collaboratively with faculty and peers to identify an appropriate integrative course, research project, performance, and/or practicum. Students may choose to fulfill their Coda within their major, but they are free to find interdisciplinary experiences and codas offered by other departments. There are many ways to define such courses, including, but not limited to:

- Senior thesis projects or capstone courses/capstone experiences that require significant research and writing;
- Existing maturity-level courses that require substantial engagement with original research, in-depth analysis, service learning, and/or civic engagement with a focus on integrative learning;
- Practicum experiences within a major (e.g., an Education Studies major may satisfy this requirement with the teaching semester);
- A one-credit add-on to an existing 3 or 4 credit course that requires the student to focus on integrative learning, work in collaborative setting with peers and faculty, and present a final product that satisfies the three Coda themes; and
- A Coda course that is specifically designed by a faculty member to invite students who do not choose to take on individual research or practicum experiences to engage with the three themes of the Coda.

As part of the Coda, students will have the opportunity to reflect on how their project and liberal arts education connect to society. Working collaboratively with faculty and peers, identifying one's own particular areas of expertise, and finding moments to reflect on the integrative learning experience are essential elements of the senior experience. The Coda is the conclusion of the sequence of integrative experiences, and thus, seniors are expected to be able to engage intentionally and thoughtfully with the process of reflecting on their time at Skidmore.

The culminating courses/projects/essays/presentations/exhibits/performances should demonstrate: 1 . that graduating seniors have engaged with their academic work in an integrative and creative manner, and 2. that they have drawn relevant connections to academic discourse, to society, and between various academic experiences throughout their time in college. CEPP envisions that senior Coda projects may be made available to the Skidmore community at the end of spring semester.

## CEPP COMMENT:

Our Goals for Student Learning and Development call for our students to "demonstrate advanced learning and synthesis in both general and specialized studies," to "apply learning to find solutions for social, civic, and scientific problems," to "develop an enduring passion for learning," and to "engage in and take responsibility for learning; strive for excellence." The integration of knowledge, concepts, and ideas from a range of experiences is at the heart of a liberal arts education. Of the current graduating class (Class of 2017), $89.8 \%$ are participating in a culminating experience, typically through a major. We believe all students should have a culminating experience where they are challenged to integrate what they have learned, reflect on their education, and connect to the broader world of academic discourse and or the world outside of Skidmore College. The Senior Coda provides an opportunity for all students to have such a learning experience while also highlighting the many senior experiences already offered at the College. The Coda asks all of us to be more intentional in how we facilitate students' engagement with their Skidmore education and how it connects to the broader world.
[See links to further resources at the end of the proposal.]

## FOUNDATIONS

## Applied Quantitative Reasoning

(1 course)
To be completed by the end of the sophomore year - prerequisite: placement or Fundamental Quantitative Reasoning (FQR) course
[A committee of stakeholders has already written learning goals and criteria for course approval. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Students must complete one applied quantitative reasoning course. Although the specific context may vary, $A Q R$ courses include the study and use of quantitative methods as a primary organizing principle of the course. In an AQR course, students will develop and use quantitative skills in an applied setting to consider, model, and solve discipline-specific or interdisciplinary real-world problems and interpret and communicate their results. The course will have an FQR course as a prerequisite. Upon completing the $A Q R$ requirement successfully, students will be able to do each of the following:

- Use statistical and/or mathematical models to characterize empirical data;
- Understand, model, and predict the behavior of populations or systems;
- Interpret and communicate results orally and/or in writing; and
- Use quantitative reasoning for informed decision-making.


## AQR Course Approval:

For a course to be designated $A Q R$, the course will need to be certified by the Quantitative Reasoning (QR) Program Director in conjunction with a QR review team of two science, technology, engineering, or math (STEM) faculty, appointed annually by the QR director in consultation with the curriculum committee and the Dean of the Faculty. To certify a course as an approved AQR, the review team will consider the course syllabus as well as a brief outline of the specific ways in which the course addresses the learning goals outlined above. Learning goals related to QR are expected to be explicitly identified in the course syllabus. Once a course is certified as an AQR course, it will be reviewed by the QR review team every 5 years or at the discretion of the QR director.

Pre-requisite for $A Q R$ :
To enroll in an AQR course, students will need to have mastered fundamental quantitative reasoning content. This mastery ensures that students have the necessary
mathematical and quantitative reasoning skills to be successful in an $A Q R$ course and are prepared for other courses that use quantitative methods as part of the curriculum. Fundamental skills ensure that students will:

- Be able to perform mathematical calculations involving estimation, basic formulas, units, percentages, fractions, statistics, probability, and geometry;
- Be able to formulate and apply basic algebra skills;
- Understand, interpret, and apply mathematical concepts and calculations in his/her daily life;
- Effectively communicate and discuss mathematical concepts and results both orally and in writing; and
- Appreciate the power and utility of mathematics and quantitative reasoning.

Students can demonstrate foundational skills through SAT/ACT mathematical test scores as before. New and transfer students not fulfilling this pre-requisite automatically through test scores will be required to complete an online QR placement test prior to registering for Skidmore courses. The test results will place students into one of the following three courses: AQR-level, foundational-level, or basic skills. In summary, students can fulfill the foundational QR content in one of the following ways:

- Achieving a score of at least 650 on the MSAT I examination, a score of at least 570 on any Mathematics SAT II examination, or a score of at least 28 on the Mathematics ACT examination;
- Placing into AQR-level coursework through the QR placement test; or
- Successfully completing a Fundamental Quantitative Reasoning (FQR) course.

In addition, the possible outcomes of the placement test include:

- Placement into AQR-level courses;

Placement into FQR-level courses; or
Placement into a basic mathematical skills course (MA 100).

## FQR Courses:

FQR courses are courses that ensure that students master the foundational skills outlined above. Students requiring an FQR course must complete this course prior to enrolling in an AQR course. FQR courses are offered in a variety of departments and programs and are worth two or more credit hours. While some courses may be developed to specifically address FQR content, other courses may cover FQR content through a supplemental 1-hour course meeting.

## FQR Courses Approval:

For an existing course to be designated FQR, the course will need to be certified by the Quantitative Reasoning Program Director in conjunction with a QR review team of two STEM faculty, appointed annually by the QR director in consultation with the curriculum committee and the Dean of the Faculty. New courses will need to first have curriculum committee approval prior to seeking FQR approval. To certify a course as FQR, the review team will consider the course syllabus as well as the FQR approval document which outlines the specific ways in which the course addresses the learning goals stated above. Once a course is certified as an FQR course, the course will be reviewed by the QR review team within 5 years of approval or at the discretion of the QR Director.

MA 100:
Quantitative Skills is a 3-hour course that currently exists and is the study of practical arithmetic and geometry, data gathering and analysis, introductory probability and statistics, size and bias in sampling, hypothesis testing, confidence intervals and their use in statistical analysis, linear relationships, interpolation and extrapolation, correlation, linear and exponential growth with practical applications.

Students requiring a basic skills course must complete this course prior to enrolling in an FQR-level course which must be completed prior to enrolling in an AQR course. Therefore, students needing MA 100 must complete this course or an equivalent course by the start of their sophomore year.

CEPP COMMENT:
Our Goals for Student Learning and Development call for our students to "acquire knowledge of human cultures and the physical world through study in the arts, humanities, languages, mathematics, natural sciences, and social sciences," to "think critically, creatively, and independently," to "gather, analyze, integrate, and apply varied forms of information; understand and use evidence," to "communicate effectively," and to "apply learning to find solutions for social, civic, and scientific problems." Quantitative reasoning is a foundational skill set for a liberally educated student to possess to critically examine results and claims about the world, to make informed decisions and choices, to communicate quantitatively based ideas and thoughts to others, and to develop and model solutions to many of the problems we face in our societies. Both direct and indirect assessments of Skidmore students and graduates indicate these goals are not adequately being met. These assessments include the 2014 Skidmore Scientific Literacy and Quantitative Reasoning Exam (SLQR), the National

Survey of Student Engagement (NSSE), and the Alumni Learning Census (ALC). On the quantitative reasoning section of the 2014 SLQR, non-natural science majors at Skidmore scored a mean of $44 \%$ and $52 \%$ reported that they never or only sometimes used numerical information to examine real-world problems. Most natural science majors ( $>80 \%$ ) reported using numerical information more frequently. The natural science majors averaged a $60 \%$ on the quantitative reasoning section of the SLQR with majors from a quantitative field scoring a mean of $74 \%$. On the NSSE, Skidmore senior non-science majors reported they were less likely to use quantitative skills than peers at other colleges. Not surprisingly, alumni on the ALC self-reported low enhancement of their quantitative skills while at Skidmore.

Under our current curriculum, students must fulfill two quantitative reasoning requirements (QR1 and QR2). QR1 is a basic mathematical skills requirement that can fulfilled through standardized test scores, passing the quantitative reasoning exam, or passing MA 100 . The QR2 requirement focuses on development of basic college level quantitative skills. QR1 must be completed by the end of a student's sophomore year at Skidmore, while QR2 must be completed by the end of the junior year. Given the assessment data, we believe the Applied Quantitative Reasoning requirement with higher expectations for courses to focus on developing the quantitative reasoning skills of students, coupled with the support as needed of MA 100 and the Fundamental Quantitative Reasoning courses, will better achieve our goals for student learning than the current QR 1 and QR 2 requirements.
[See links to further resources at the end of the proposal.]

## Global Cultural Perspectives

(1 course)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Courses that qualify for the global cultural perspectives requirement are those courses in which students develop intercultural understanding and global perspectives by turning their attention away from western, Eurocentric cultural traditions to study such topics as the global south, first nations/indigenous peoples, colonialism/formerly colonized nations, and mass migration, including comparative approaches to these topics. In these courses students may also examine the social, economic, political, historical, literary, philosophical, religious, and/or aesthetic aspects of different cultures and their global contexts.

## CEPP COMMENT:

Courses from a number of disciplines in the Humanities and Social Sciences will satisfy the Global Cultural Perspectives requirement. Our Goals for Student Learning and Development call for our students to "understand social and cultural diversity in national and global contexts," to "interrogate one's own values in relation to those of others, across social and cultural differences," and to "interact effectively and collaboratively with individuals and across social identities."
[See links to further resources at the end of the proposal.]

## Language Study

(1 course)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

The study of an additional language provides insight into cultural differences; it develops understanding of the workings of language systems, and provides an alternate means of perceiving the world. Accordingly, all students must take one course in an additional language. The requirement can be fulfilled one of two ways:

1. Successful completion of a course focused on acquisition and or analysis of a language other than English.
2. A committee of stakeholders convened by CEPP will consult with experts in the field of ELL (English Language Learning) to determine appropriate methods for assessing the English language abilities of our ELL students. Students who need ELL instruction will fulfill their language requirement with an ELL course to be designated and delivered by appropriate faculty trained in this field.

## CEPP COMMENT:

The language courses offered by the World Languages and Literatures Department as well as the Classics Department and the Asian Studies Program will fulfill the requirement. Our Goals for Student Learning and Development call for our students to "communicate effectively," to "understand social and cultural diversity in national and global contexts," and to "interact effectively and collaboratively with individuals and across social identities."
[See links to further resources at the end of the proposal.]

## Writing

(1 course)
To be completed by end of 2nd year; prerequisite: placement or successful completion of EN 103.
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Students in a Writing course will immerse themselves in the process of writing informed by careful reasoning and critical reading. Students will further cultivate their skills in developing ideas, writing from sources, organizing material, and revising drafts. Students will further refine their understanding of grammar, style, and formal conventions of writing. Some students will need prerequisite experience writing in English (e.g., EN 100 and EN 103) before enrolling in a Writing course.

## CEPP COMMENT:

Courses that satisfy the writing requirement will necessarily be writing intensive courses; they will have the appropriate lower course caps. The prerequisite must be completed by the end of the first year. Our Goals for Student Learning and Development call for our students to "communicate effectively," to "gather, analyze, integrate, and apply varied forms of information; to understand and use evidence," and to "think critically, creatively, and independently."
[See links to further resources at the end of the proposal.]

## INQUIRIES

## Artistic Inquiry through Practice

(1 course)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Students in a course that satisfies the artistic inquiry requirement will develop an understanding of creative expression through hands on engagement in a performance, plastic, visual, digital, or literary art. That practice may include such aspects of the creative process as invention, interpretation, investigation, manipulation, and discovery, which leads to critical and creative problem solving. Through the critique and analysis of artworks, students will develop a context for and an understanding of their own creative engagement as well as the creations of others. Students will directly experience the thought processes and actions involved in the creation of artistic forms and should learn how to analyze, interpret, and criticize such forms. Students will achieve the advancement of technical proficiency and the refinement of critical aesthetic sensibility.

## CEPP COMMENT:

Any number of courses in Art, Dance, Creative Writing in English, Music, and Theater will satisfy this requirement. Our Goals for Student Learning and Development call for our students to "acquire knowledge of human cultures and the physical world through study in the arts, humanities, languages, mathematics, natural sciences, and social sciences," and to "think critically, creatively, and independently."
[See links to further resources at the end of the proposal.]

## Humanistic Inquiry and Practice

(1 course)
[A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

Courses that satisfy the humanistic inquiry and practice requirement will examine contemporary or past cultural values, helping students to cultivate critical judgment as they study how people process and record the human experience. Students analyze and
reflect upon human culture as expressed in historical tradition, literature and languages, art, film, performances, music, historical documents, cultural artifacts, and ideas and beliefs. Students will understand the unique value of the particulars within human contexts and the importance of subjectivity for human experience.

## CEPP COMMENT:

Courses in this category are typically, but not exclusively, offered in art history, classics, dance theory and history, history, literature (in English and in other languages), music theory and history, philosophy, religion, political philosophy, and theater theory and history. Our Goals for Student Learning and Development call for our students to "acquire knowledge of human cultures and the physical world through study in the arts, humanities, languages, mathematics, natural sciences, and social sciences." to "think critically, creatively, and independently," and to "gather, analyze, integrate, and apply varied forms of information; understand and use evidence."
[See links to further resources at the end of the proposal.]

## Scientific Inquiry through Practice

(1 course)
[Based on the recommendation of the 2011-2012 CEPP sub-committee on Science Literacy. A committee of stakeholders will further refine the learning goals and criteria for approving courses. Departments or programs and curriculum committee will determine appropriate credits for qualified courses.]

In a Scientific Inquiry course, students will learn about the nature of science through scientific practices to understand an aspect of the world. Students in the course will consider the process of scientific thinking as a set of inquiry-based methodologies used to understand the world and will also become versed in the design of scientific studies. Students will also learn scientific knowledge and theories regarding the world based on scientific practices. At least one credit of the course will be devoted to hands-on student engagement in scientific practices in a laboratory or fieldwork component of the course where students learn to make their own measurements and/or observations, evaluate the quality of the data and observations, and draw appropriate conclusions based on the available evidence. In addition, the laboratory or fieldwork component will substantially engage students in a hands-on experience in at least one of the following ways:

- Inquiry based activities where students use an inductive and/or deductive approach to study and better understand an aspect of the world where the outcome of the study is not known beforehand;
- Discovery based activities where students use an inductive and/or deductive approach to learn about known phenomena in the universe; and
- Problem-based activities where students develop their own inductive and/or deductive methodology to address a particular scientific question and/or problem.


## CEPP COMMENT:

On the 2014 Assessment Report on Scientific Literacy and Quantitative Reasoning, Skidmore students did well on basic scientific knowledge. On the Nature of Science Literacy Test, Skidmore students generally did well except on questions related to the definition of a theory, the definition of a law, the relationship between theories and laws, the meaning of induction/deduction, and evidence needed to prove a statement true or false. In addition, non-science majors in particular had difficulty related to experimental conditions/design. On the Scientific Literacy portion of the assessment, students were especially challenged on the question related to the design of a study. Our Goals for Student Learning and Development call for our students to "acquire knowledge of human cultures and the physical world through study in the arts, humanities, languages, mathematics, natural sciences, and social sciences," to "think critically, creatively, and independently," and to "gather, analyze, integrate, and apply varied forms of information; understand and use evidence." The scientific inquiry through practice requirement addresses and strengthens those areas where our students have shown significant weaknesses. The portion of the course devoted to hands-on student engagement in scientific practices that is worth at least one credit should meet the credit hour expectations of an activity supervised as a group.
[See links to further resources at the end of the proposal.]

## IN THE MAJOR

## Information Literacy

[Departments and Programs will consider ways in which discipline-based information skills can be intentionally included in the major, either through application of the "Writing in the Major" model or by some other mechanism.]

Definition:

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning. (Association of College and Research
Libraries, Framework for Information Literacy for Higher Education, Feb. 2015)

An information literate individual is able to:

- Determine the extent of information needed;
- Access the needed information effectively and efficiently;
- Evaluate information and its sources critically;
- Incorporate selected information into one's knowledge base;
- Use information effectively to accomplish a specific purpose; and
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (Association of College and Research Libraries, Information Literacy Competency Standards for Higher Education, Jan. 2000).


## Oral Communication

[Departments and Programs will consider ways in which discipline-based oral communication can be intentionally included in the major, either through application of the "Writing in the Major" model or by some other mechanism.]

Definition:

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. (AAC\&U, Oral Communication VALUE Rubric).

## Technology Literacy

[Departments and Programs will consider ways in which discipline-based technology skills can be intentionally included in the major, either through application of the "Writing in the Major" model or by some other mechanism.]

Definition:

A technology literate student is able to use effectively appropriate tools to acquire, manage, evaluate, create, and or communicate information, knowledge, or works of art.

## Visual Literacy

[Departments and Programs will consider ways in which discipline-based visual literacy can be intentionally included in the major, either through application of the "Writing in the Major" model or by some other mechanism.]

A visually literate individual is able to:

- Determine the nature and extent of the visual materials needed;
- Find and access needed images, objects, and visual media effectively and efficiently;
- Interpret and analyze the meanings of images and visual media;
- Evaluate images, objects, and their sources;
- Use images, objects, and or visual media effectively;
- Design and create meaningful images, objects, and or visual media; and
- Understand many of the ethical, legal, social, and economic issues surrounding the creation and use of images, objects, and visual media; and access and use visual materials ethically (Adapted from Association of College and Research Libraries, Visual Literacy Competency Standards for Higher Education, Oct. 2011).


## Writing in the Major

No significant changes are proposed to the writing in the major requirement at this time.

## CEPP COMMENT:

Our Goals for Student Learning and Development call for our students to "communicate effectively," to "gather, analyze, integrate, and apply varied
forms of information; understand and use evidence," to "engage in and take responsibility for learning; strive for excellence," to "develop practical competencies for managing a personal, professional, and community life," and to "think critically, creatively, and independently." The 2012 assessment Writing in the Major Report revealed our students had "[p]roblems with sources and citations, doing literature reviews, and citing sources appropriately and correctly." The Middle States Standards for Accreditation and Requirements for Affiliation require written and oral communication, technological competency, and information literacy to be addressed in the curriculum either separately or integrated into academic disciplines. These competencies are already being taught in most departments and programs but could be done so with greater intentionality. Departments and programs are encouraged to think how they can be integrated together and into the curriculum.
[See links to further resources at the end of the proposal.]

Supporting Resources*

What are our Goals for Student Learning?

- Goals for Student Learning and Development (GSLD)

Where are these Goals addressed in the existing Curriculum?

- Mapping Goals for Student Learning and Development to Curricular and CoCurricular Activities

What evidence do we have about gaps in current student outcomes? What data support the changes CEPP recommends?

Assessment and Institutional Research Data

- 2015 Alumni Learning Census, Classes 2001-2010
- 2014 Assessment Report on how well our students are meeting the GSLD
- 2014 student campaign: I, Too, Am Skidmore
- 2014 Assessment White Paper on the Quantitative Reasoning Requirements
- 2014 Assessment Report on Scientific Literacy and Quantitative Reasoning
- 2013 Assessment Report on Civic Engagement
- 2013 NSSE assessment data
- https://www.skidmore.edu/ir/secure/nsse/NSSE-Report-2016.pdf
- 2012 Culture Centered Inquiry (CCI) Proposal (CEPP)
- 2012 Writing in the Majors Report: Teagle-Funded Writing Initiative
- 2012 Alumni Learning Census, Classes 2003 and 2008
- 2012 CEPP Subcommittee Report on Scientific Literacy
- 2012 CIGU Report: Graduating Students of Color Exit Interviews Class of 2011
- 2011 Report on Engaging Sophomore Students with Liberal Learning: Focused Exploration through Academic Advising
- 2009 Survey and Analysis of Cultural Diversity Courses at Skidmore College

What does AAC\&U say about a liberal arts education?

- https://www.aacu.org/leap/what-is-a-liberal-education

What does our Accrediting Commission (Middle States Commission on Higher Education) say about Curricula?

- Middle States 2015-16 Accreditation Resources: Self Study Design, Standards of Excellence
- http://www.msche.org/documents/RevisedStandardsFINAL.pdf

[^1]What does our ongoing Self-Study say about our curriculum?

- Skidmore's Middle States Self Study Report

What are the requirements of our existing Curriculum?

- Checklist of All-College Degree Requirements
- All-College Curriculum With Links to Guidelines


[^0]:    ${ }^{1}$ https://www.aacu.org/leap/what-is-a-liberal-education

[^1]:    * May require Skidmore credentials for access.

