



2016-17 Core Curriculum Assessment

Rutgers – New Brunswick Core Curriculum Student Learning Outcomes Assessment Report, 2016-17

Executive Summary:

The Rutgers – New Brunswick Core Curriculum serves as the general education program for students matriculating in the School of Arts and Sciences (SAS), the School of Environmental and Biological Sciences (SEBS), and the Rutgers Business School – New Brunswick.

The Core Requirements Committee (CRC) requests academic departments to report on assessment activities and results for their Core-certified courses on a three-year rotating cycle. Departments are required to report on fully on-line courses every time such courses are offered. The CRC requested reports from 146 of the 361 Core courses offered in Fall 2016, 26 of the 33 Core courses offered in Winter 2017, and 157 of the 372 Core courses offered in Spring 2017. We received results for 308 courses required to report (94% response rate). *Core assessment results were also filed voluntarily for an additional 120 courses.* The combined enrollments in all courses reporting Core goals assessment was over 61,000 students. Over half of the submitted reports included plans to make changes to improve student learning or to improve the measurement of student learning.

The Core Curriculum underwent an external review this academic year leading to the first revision of learning goals. In Spring 2015, the SAS faculty passed a resolution calling for a committee to be formed to conduct an external review of the Core Curriculum. As specified in the resolution, a committee of eight, two from each disciplinary area of SAS, was elected by the SAS faculty in Fall 2015. Executive Dean Peter March charged the Core Evaluation Committee (CEC) to gather data and evaluate the philosophy as well as the operation of the Core. During Spring 2016 and Fall 2016, the CEC met with the various constituencies including students, faculty, CRC leadership, and SAS Office of Academic Services personnel. The CEC also conducted surveys of students and faculty in November 2016. The CEC submitted its final report to Executive Dean March in December 2016.

The CEC concluded that the Core Curriculum serves “the educational interests of our students, both building their skills of critical thinking and writing, and exposing them to a wide range of academic disciplines, and potentially, interdisciplinary inquiry.” However, the CEC argued that there was a need to revise and refine the Core Curriculum and its administration to reduce confusion and make it more transparent to faculty and students. The CEC made several recommendations in its report. These recommendations can be classified into three categories: administrative and advising changes to improve student understanding and access to information about the Core Curriculum; revisions to the faculty-facing aspects of the Core Curriculum; and revisions to the requirements facing students, including the possible addition of a diversity requirement.

Drawing on the recommendations of the CEC as well as its own evaluation of the Core Curriculum, the CRC developed a proposal to revise the faculty-facing aspects of the Core Curriculum to articulate more clearly the desired learning outcomes and to promote more effective assessment of these outcomes. The proposed changes included combining goals, eliminating goals, and changing the wording of some goals. None of these changes affect the requirements students need to fulfill or the status of any course currently certified for the Core. The CRC proposal was approved at the SAS Faculty and Affiliates meeting in May 2017. The changes will go into effect in AY 2017-18.

Assessment of the New Brunswick Core Curriculum 2016-17

Following the 2006 adoption of the “Transformation of Undergraduate Education Task Force Report” recommending the reorganization of undergraduate education and the establishment of the School of Arts and Sciences (SAS), a faculty committee began a year and a half of deliberation resulting in an innovative new goal-based Core Curriculum. The combined SAS and professional school-based faculty adopted the Core in the Spring of 2008 to go into effect with students entering in the Fall 2011 and beyond. Undergraduate students matriculating in the School of Arts and Sciences and the New Brunswick Business School, including those planning to complete majors offered by the Edward J. Bloustein School of Planning and Public Policy, the School of Communication and Information, the School of Management and Labor Relations, the School of Social Work, the Mason Gross School of the Arts BA programs, and the five-year Graduate School of Education program, participate in the Core Curriculum. These Schools are represented (in rotation) on the Core Requirements Committee (CRC), as is the School of Environmental and Biological Sciences, which as of AY 2015-16 requires a modified Core Curriculum for its majors.¹ All of these Schools offer courses certified for the Core, as do the SAS departments.²

Yes	<p>Learning Goals</p> <ul style="list-style-type: none"> o Clearly defined o Publicly posted – provide url http://sasoue.rutgers.edu/core/core-learning-goals o Aligned in hierarchy of learning goals <ul style="list-style-type: none"> o University level o Decanal Unit level o Program/department level o Course level
Yes	Course Syllabi/synopsis/expanded description includes appropriate learning goals
Yes	Identifies where or how the goals are met

Under the Core Curriculum in effect through AY 2016-17, students were required to meet 14 requirements based in 28 learning goals clustered in 3 areas. The Core is structured to ensure that all students will meet the learning outcome goals that the faculty have identified as forming the core of a modern liberal arts and sciences education at a leading 21st Century public research university. These goals are publicly posted in multiple places, as the goals *themselves* define the Core Curriculum requirements students must meet. The Core is described in a widely-circulated brochure available as a pdf on various web pages [http://sasoue.rutgers.edu/docman-docs/doc_download/24-core-curriculum-brochure]. A description of the Core goals in effect through AY 2016-17 can be found in **Appendix A**. Unlike many of our peers whose general education requirements are difficult to find on their public web pages, links to the Core goals are prominent on the main [SAS Office of Undergraduate Education](#) web page and the Core is highlighted in the scrolling banner on the main SAS undergraduate [Office of Academic Services](#) web page. The Core goals, and the courses that satisfy each of these requirements, are on the [Academic Services web page](#) and the Core goals are part of the text students see in the

¹ School of Environmental and Biological Sciences Core Curriculum, adopted 2013-14: <https://sebs.rutgers.edu/core/>

²Through AY 2016-17 students entering as Engineering or Pharmacy students have not been required to complete the Core Curriculum, but the mandatory curriculums at each of these Schools include some courses certified for the Core Curriculum. Hence, every New Brunswick undergraduate takes courses that have been certified for the Core: 01:355:101 Expository Writing; specified mathematics courses; and specified natural science courses. Transfer students are required to take 21st C Challenges courses [21C] and a Writing and Communication with revision course [WCR] at Rutgers NB. UMDNJ legacy schools have not been integrated into the New Brunswick undergraduate program at this time.

[Schedule of Classes](#) and [Degree Navigator](#), as they chart their progress toward completing their degrees. As illustrated in **Appendix B³**, these Core goals are aligned with the University learning goals and they are the general education learning goals for the undergraduate programs in each of the Schools listed above. And, as discussed below, each course certified for the Core must include the Core goals on the syllabus. Codes for the Core goal categories are also in the [Web Registration system](#) and Course Schedule Planner that students use for registration.

Yes	<p>Assessment Plan, Structure, and Process: Describes the assessment structure and the process by which the assessment plan was developed and shared within the unit</p> <ul style="list-style-type: none"> o Efficient o Effective o Sustainable o Reviewed annually
Yes	<p>Assessment Tools/Measures</p> <ul style="list-style-type: none"> o Includes some direct measures o Tools/measures appropriate to goals o Designed to produce reliable results that can be used for program improvement
Yes	<p>Benchmarks/Standards</p> <ul style="list-style-type: none"> o Describes the process used to define standards, targets, and relevant peer and historical comparisons o Articulates appropriately rigorous standards for judging student achievement of learning goals and identifies unacceptable levels of performance for all learning goals

The Core Requirements Committee (CRC) oversees the Core.⁴ The CRC is made up of faculty and staff representatives from the various Schools that use the Core and the SAS Associate Dean for Undergraduate Education. The CRC generally meets every three to four weeks to review petitions to add courses to the list of those certified for the Core, and otherwise make Core Curriculum policy.

Assessment is an integral part of this Core Curriculum. The Core Requirements Committee requires *all* courses certified for the Core to include a clear statement of the Core goal(s) on the syllabus and a plan for assessing student achievement of the specified Core learning goal(s). These assessment plans are reviewed by the CRC before a course is recommended to the full faculty for certification as meeting any Core Curriculum goal(s).

The primary method of assessment employed in Core courses involves scoring an embedded assignment or exam question(s) using Core goal rubrics the CRC has developed as the preferred “best practice” assessment option. The full process and rubrics are available on the SAS Office of Undergraduate Education (OUE) website at <http://sasoue.rutgers.edu/core/core-assessment>, and detailed in the [Faculty Guide to Core Certification](#). All the [Core rubrics](#) are available on the OUE webpage. **Appendix C** provides the rubrics for the 21st Century Challenge learning goals. Faculty are also free to adopt other methods of assessing student achievement of Core learning goals. For example, some faculty use pre and post tests and report the number of students who have achieved the goals at an outstanding, good, satisfactory, and unsatisfactory level.

³ See original document online at http://sas.rutgers.edu/component/docman/doc_download/549-core-sas-a-university-learning-goals-aligned

⁴ See page 15 for Core Requirements Committee (CRC) members, AY 2016-17.

The CRC is aware that some of our colleagues as well as some observers of higher education more broadly think of general education as something to be assessed in totality as students graduate. We understand the desire to measure the value added of a college education and the challenges inferring this from course-based evaluations. However, the common tool for evaluating student competencies in general skills, the nationally standardized test, has recently come under more scrutiny. The primary criticism is that the results of these tests are difficult to use to develop plans for revising courses and curricula to improve student learning. The problem is not just one of identifying where in the curriculum a shortcoming has arisen, but also one of accountability. As Tanya Furman argues in an article in *The Journal of General Education*, “the summative and aggregated data provide an institutional snapshot but do not foster the taking of responsibility for student intellectual growth.”⁵

A recent survey of AAC&U member institutions finds a move away from standardized tests to assess general education. Among schools that assess cumulative learning outcomes for general education, the percentage using standardized national tests of general skills fell from 49% in 2008 to 38% in 2015. Over the same period, there was a marked increase in the use of rubrics applied to examples of student work (from 77% in 2008 to 91% in 2015).⁶ In announcing the 2016 report, AAC&U President Carol Geary Schneider praised this trend, stating:

The assessment shift from tests that were disconnected by design from students’ course of study toward assessment tools that are anchored directly in students’ assignments across-the-curriculum is a huge cultural shift. Assessment is poised, at long last, to become a tool for learning improvement, and not just a compliance exercise whose results leave educators mystified rather than usefully informed.⁷

The Rutgers-New Brunswick model of assessment of student learning through authentic, embedded, direct assessments implemented in courses across the Core Curriculum reflects this cultural shift, and a strong consensus nationally about best practices in effective general education programs.

As assessment is built into the structure of Core courses -- generally rubric-based scoring of embedded assignments, as noted -- the CRC expects these assessments will be conducted every time that the Core course is offered. The CRC asks departments for complete assessment reports on all Core certified courses at three-year intervals, such that each year the CRC reviews assessment reports from a third of the departments. These assessment reports are intended to:

- compile systematic evidence that students are achieving the Core Curriculum goals;
- identify gaps between the aspirations of the courses and actual student achievement; and
- provide a trigger for modification or department review of the certified courses and their appropriateness for the Core.

⁵ Furman, Tanya (2013). Assessment of General Education. *The Journal of General Education* 62(2), page 133. Project MUSE database (accessed May 16, 2016). <http://muse.jhu.edu/article/520321> | DOI: 10.1353/jge.2013.0020 | pdf: <http://muse.jhu.edu/article/520321/pdf> See also, NILOA leaders’ recent book, Kuh, G.D., Ikenberry, S.O., Janowski, N.A., Cain, T.R., Ewell, P.T., Hutchings, P. & Kinzie, J. (2015). *Using evidence of student learning to improve higher education*. San Francisco, CA: Jossey-Bass.

⁶ Association of American Colleges & Universities (2016). Trends in Learning Outcomes Assessment: Key Findings from a Survey among Administrators at AAC&U Member Institutions. *National Survey of AAC&U Member Chief Academic Officers (2015): Report #3*, conducted by Hart Research Associates, page 7. pdf: http://www.aacu.org/sites/default/files/files/LEAP/2015_Survey_Report3.pdf

⁷ AAC&U, February 17, 2016 Press Release: <http://www.aacu.org/press/press-releases/higher-education-learning-outcomes-assessment-movement-moves-away-standardized>

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After surveying the literature on assessment and best practices at peer institutions, we have benchmarked Core goal outcomes with an expectation that at least two-thirds of students will meet the assessed goal at the satisfactory or better level. *In fact, our faculty members have responded to scores well above this benchmark with reforms designed to improve student learning in Core courses.* The CRC retains an annually-updated catalog of these reforms.

Yes	Assessment Implementation and Results <ul style="list-style-type: none">o Conducted and reports on at least one direct assessment measure of at least one of the primary student learning goals; results included in report
Yes	Response to Assessment Results: “Closing the Loop” activities <ul style="list-style-type: none">o Describes the process used to review assessment information and use for improvemento Modification/refinement of pedagogy, curriculum, assessment tool, or learning goal based on assessment results. Provides evidence and/or examples of improvements made based on the results of learning outcomes assessment

Academic year 2016-17 was the sixth year of the Core Curriculum, and saw the graduation of the third class governed by the Core requirements. It was also the third year of the second 3-year cycle of learning goals assessment results, in which the reporting departments have been asked to include a substantive analysis of the cumulative assessment results; information about modifications that may have been made to any course based on prior assessments; and observations on changes in student learning outcomes over the reporting cycle. These results add to the already impressive tally for the first full Core assessment cycle, covering academic years 2011-12 through 2013-14.

The CRC extended reporting requirements during AY 2016-17 to include Core-certified courses offered in the Winter and Summer Sessions. Over time, there has been a significant increase in the number of Core-certified courses offered in these sessions, particularly in the Winter Session. For AY 2016-17, all departments scheduled to report Core assessment results were asked to provide reports for their Winter Session Core courses, and all departments were asked to file reports for on-line Winter Session courses. Starting AY 2017-18, the CRC will require assessment reports to be filed for *all* Core-certified courses offered in the Winter Session. Summer Session reports will be requested according to the current 3-year reporting cycle. To comply with the annual assessment reporting schedule of the University Executive Council on Assessment, Summer Session reporting will be rolled into the subsequent academic year reporting cycle. For example, assessment reports for Summer Session 2017 courses will be requested from all departments scheduled to report in AY 2017-18.

In AY 2016-17, the Core Requirements Committee requested reports from 146 of the 361 Core courses offered in Fall 2016, 26 of the 33 Core courses offered in Winter 2017, and 157 of the 372 Core courses offered in Spring 2017. For AY 2016-17, we received results from these departments for 308 courses (94% response rate). Reflecting the CRC’s encouragement of best practices in implementing Core goal assessments, results were voluntarily filed for another 120 courses (65 in Fall, 2 in Winter, and 53 in Spring). The combined enrollment of all courses reporting Core goals assessments was over 61,000 students. Table 1 lists the departments from which assessment reports were received this year. Many courses are certified for more than one Core goal, giving us a database of 137,287 individual student assessment scores ranging across the 28 Core goals in AY 2016-17.

The high compliance rate and the increased number of voluntary submissions indicate an increased engagement of the faculty in the assessment of student learning outcomes. Some

departments now encourage instructors to file reports every time a Core course is offered. A number of departments leverage the Core goal assessments for their annual evaluations of their major programs.

Table 1: Departments and Programs Submitting Core Assessment Reports AY 2016-17	
School	Departments and Programs
SAS	AMESALL, Africana Studies, American Studies, Anthropology, Art History, Asian Languages & Cultures, Biological Sciences, Classics, Cinema Studies, Comparative Literature, Computer Science, Criminal Justice, Earth & Planetary Sciences, Economics, English (Literature), English Writing Program, French, Genetics, Geography, German, History, Italian, Jewish Studies, Kinesiology and Health, Italian, Latin American Studies, Latino and Caribbean Studies, Linguistics, Molecular Biology & Biochemistry, Organizational Leadership, Philosophy, Physics & Astronomy, Political Science, Psychology, Religion, Russian & East European Languages & Literatures, Sociology, Spanish & Portuguese, Women's and Gender Studies; SAS <i>Signature</i> Courses; SAS Honors Program
SC&I	Communication, and Communication & Information, Information Technology & Informatics
GSE	Education (undergraduate)
MGSA	Dance, Music, Theater
EJBSPPP	Planning & Public Policy, Policy, Health, and Administration, Public Health, Public Policy, Public Administration and Management
SEBS	Environmental & Business Economics, Environmental Sciences, Marine & Coastal Sciences, Meteorology, Microbiology, Nutritional Science
SMLR	Labor Studies

The results for AY 2016-17 are presented in Figure 1. This year, satisfactory level (or better) achievement ranged from around 82 percent in the Quantitative and Formal Reasoning goals and the Information, Technology and Research goal, **aa**, to near 95 percent in a number of goals throughout the curriculum.

Caution should be used in interpreting the aggregate results from any annual cycle because only a third of the departments participating in the Core are required to report assessment results in a given year. We have now completed our fifth year of the Core assessment reporting cycle. All departments offering Core-certified courses now have implemented at least two rounds of learning goals assessments, and those asked to report in AY 2016-17 now have substantial information on changes in performance over time on which to base decisions about “close the loop” actions to further improve student learning outcomes. Since the launch of the Core Curriculum, over 630,000 assessments have been reported for the Core learning goals. As Figure 2 shows, there has been enough variation to indicate that rigorous standards are being imposed, and enough across the board success to suggest that in terms of both instruction and student learning outcomes, the Core is quite effective.

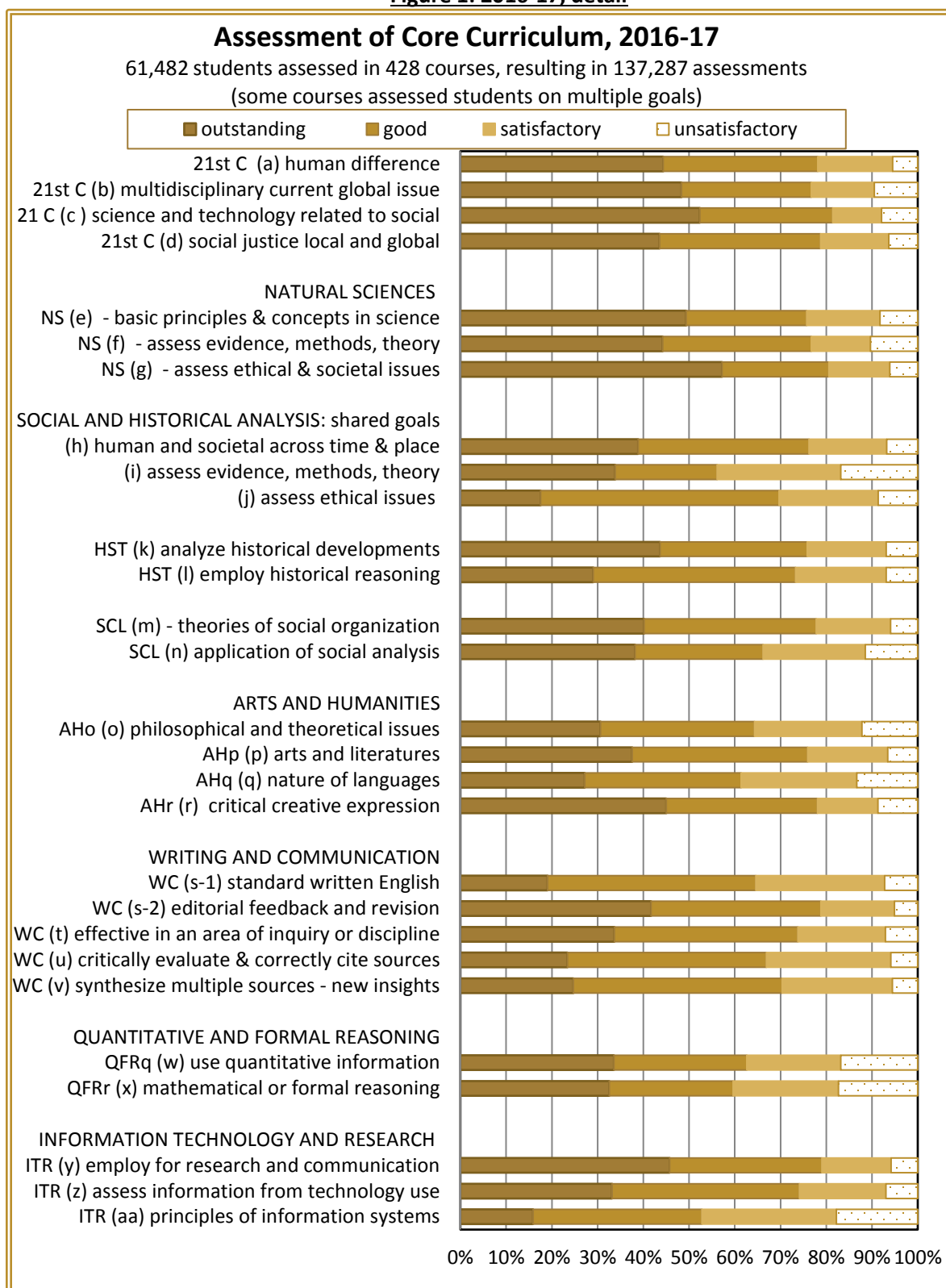
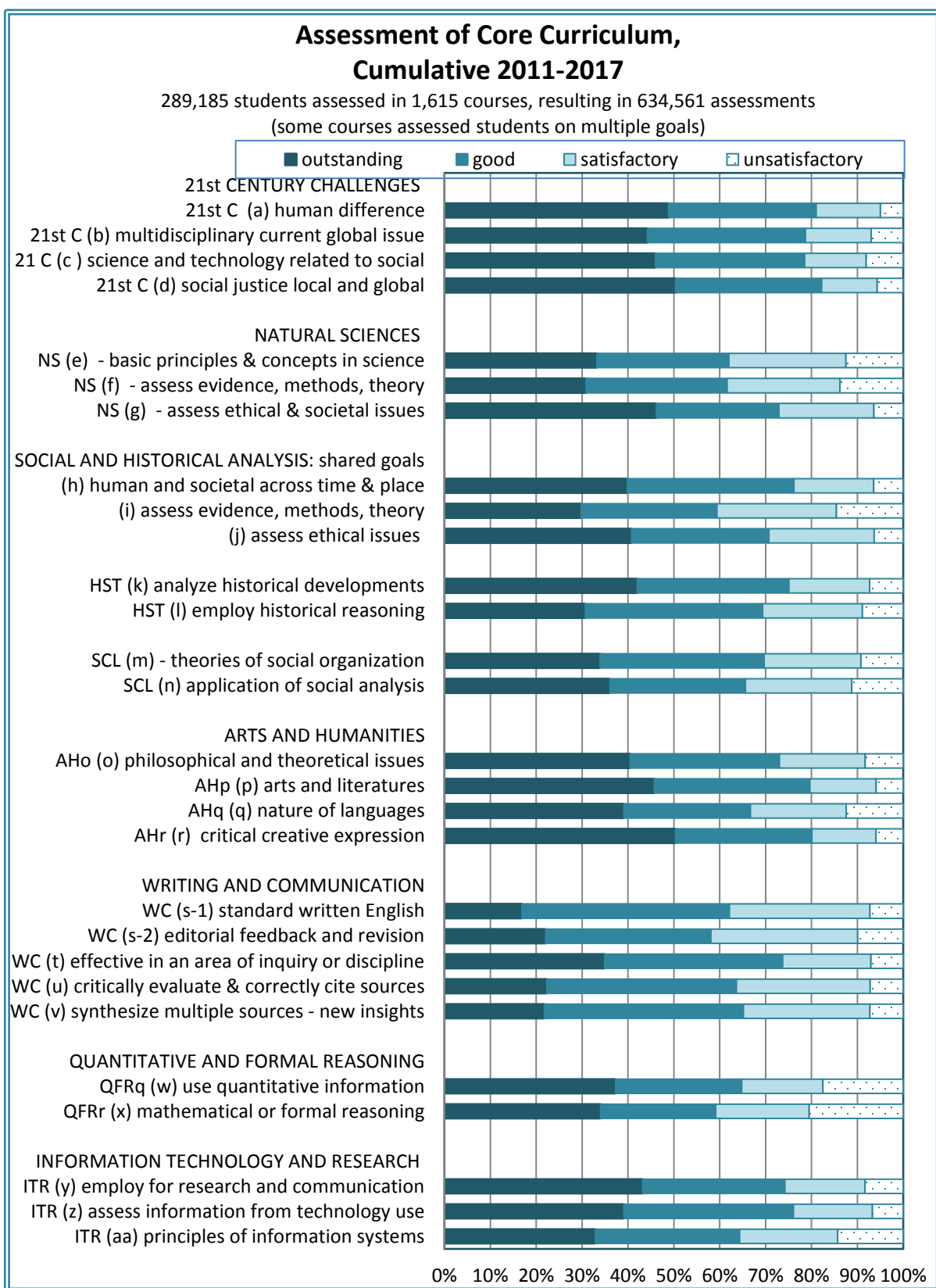
Figure 1: 2016-17, detail


Figure 2: Cumulative 2011-2017, detail



The CRC does, however, have concerns that some courses are reported as having over 75 percent of students achieving goals at the “outstanding” level. The CRC plans to continue its work with departments and instructors to refine assessment instruments and procedures to better distinguish between levels of student outcomes.

Yes	<p>Response to Assessment Results: “Closing the Loop” activities</p> <ul style="list-style-type: none"> o Describes the process used to review assessment information and use for improvement o Modification/refinement of pedagogy, curriculum, assessment tool, or learning goal based on assessment results. Provides evidence and/or examples of improvements made based on the results of learning outcomes assessment.
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As noted earlier, the CRC is impressed with faculty efforts to “close the loop” even when the assessment results in their courses are above the benchmarks the CRC has set. Table 2 presents data on the number of reports submitted from 2011 to 2017 indicating plans to modify courses in response to the Core goals assessment results. Over time, the number of reports with plans for modification has grown significantly. This is due to the efforts of the CRC and the SAS Office of Undergraduate Education to work with faculty to build an appreciation of the value of assessment and to cultivate more effective assessment methods. Over the entire period, approximately 47 percent of the reports included such plans. In AY 2016-17, 53 percent of the reports included such plans.

Table 2: Progress in Creating a Culture of Evidence, Experimentation, and Continuous Improvement					
Cycle Year	Assessment Results Received (no. courses)	Plans to Improve Student Learning Reported			
		Fall	Winter	Spring	Year total
2011-12	115	13		13	26 (23%)
2012-13	206	32		36	68 (33%)
2013-14	200	40		49	89 (45%)
2014-15	215	23		36	59 (27%)
2015-16	428	134		144	278 (65%)
2016-17	428	111	15	101	227 (53%)
Five-Year Totals	1592	353	15	379	747 (47%)

Table 3 provides a summary of the types of modifications proposed. The process of assessment has encouraged our faculty to think about ways to improve student learning in their courses, and encouraged an increased degree of faculty engagement with the student learning outcomes of our general education requirements as manifested in their individual courses.

Table 3: Summary of Types of Revisions Made in Core Curriculum Courses in Response to Assessment Results, 2011-2017	
Revise / add homework	<ul style="list-style-type: none"> · Add assignments, often requiring more frequent and regular interaction with the course material · Add more online homework practice with automated responses
Revise instructors’ in-class presentations or	<ul style="list-style-type: none"> · Add more in-class instruction targeted on problematic topic or skill; provide more explicit guidance about what students need to do

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topics or readings	<ul style="list-style-type: none"> · Add more multi-media sources to assist with conceptualization of abstract concepts · Introduce more authentic or primary sources · Add video instruction to free up more in-class time · Assign fewer texts and probe them in more depth
Revise in-class activities	<ul style="list-style-type: none"> · Add or re-structure peer review · Add or re-structure in-class group work · Provide more in-class examples, modeling, and group practice · Introduce i>clickers for real time assessment of student comprehension · Add more of an approach or activity the instructor had previous success with
Revise content	<ul style="list-style-type: none"> · Rebalance topics, rethink how topics are covered, and introduce more repetition and practice exercises · Add more instruction on critical assessment of sources and synthesis of information · Depart from current disciplinary orthodoxy in pedagogy or texts
Add scaffolding	<ul style="list-style-type: none"> · Add a re-write requirement or option · Scaffold assignments to guide students through a skill or process step-by-step and build ability along the way · Revise curricular sequencing or add prerequisites
Add meta-cognition activities	<ul style="list-style-type: none"> · Add reflective and meta-cognition activities · Provide more in-class opportunities to practice and reflect on the desired skill · Further emphasize Core goal throughout the course
Revise prompts or assessment method	<ul style="list-style-type: none"> · Reframe exam questions, assignments, and/or assessment prompts to bring them into better alignment with the Core goal · Align prompts, assignments, and expectations across instructors and TAs · Develop department consensus on substantive expectations at different points in the student's progress · Add a portfolio requirement · Use data analytics to identify and reach out to at-risk students.

Yes	Successful Improvement: Provides evidence that “closing the loop” actions result in improved student achievement of goals
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Notable instances of improvement based on changes adopted in response to previous assessment results were included in the AY 16-17 reports submitted by the German, Italian, Latino and Caribbean Studies, and Labor Studies Departments.

The German Department offers a popular course, “Fairy Tales Then and Now,” that is certified for the writing goals as well as the Arts and Humanities goal, AHP. The instructor wanted to improve student writing skills so she implemented the following changes for the Spring 2017 semester: “(1) introduced students to complex critical reading and analytical skills earlier in the semester; (2) required students to apply these critical analytical skills by giving challenging essay assignments earlier in the semester; (3) spent more time working on writing and editing techniques in class; (4) scheduled more office hours, and had a teaching assistant who held office hours and helped students with their writing.” The instructor and the graders noted that compared to previous years’ classes, this year’s students performed better on the final essay in terms of the level of critical sophistication of their analyses and basic writing skills. While the instructor is pleased with the students’ improved writing, she plans to implement further changes the next time she offers the course to continue to improve student learning. In particular, she plans to: “(1) spend more time discussing writing and editing techniques before the

first essay assignment; (2) devote more class time to common writing problems over the course of the semester; (3) challenge students to think more critically by giving them discussion questions designed to guide them through complex readings; (4) revise the wording of the final assignment to include a checklist for the required self-critique for prompt #2.”

The Italian Department was concerned that students in its “Intermediate Italian” course were not acquiring the vocabulary necessary to understand contemporary Italian, especially spoken Italian. Since the last reporting cycle, the course was revised to introduce students to Italian as it is spoken today, including idioms that are commonly used in the spoken language, but rarely appear in standard language classes and textbooks. The most recent assessment results show that most students completing the course have mastered the use and understanding of certain idiomatic expressions.

The Latino and Caribbean Studies Department noted marked improvement of student performance on the 21st Century Challenge goal, b (“Analyze a contemporary global issue from a multidisciplinary perspective”), from a relatively small change in the instructor’s approach to the course: rather than just relying on the introductory lecture to highlight the multidisciplinary approach to the course, she emphasized it more consistently throughout the semester in both lectures and class discussions. The instructor noted in particular that this approach led to students being more “creative in pairing sources representative of different fields.”

The Department of Labor Studies in the School of Labor and Management Relations reported improvements in multi-section Core courses brought about by instructors sharing teaching methods, assignments and methods for assessing learning outcomes. The Department intends to extend this practice to courses outside the Core curriculum.

Yes	<p>Maintenance/Updating Process</p> <ul style="list-style-type: none"> o Describe the process used to review and update learning goals o Learning goals are updated, as needed, in light of changes in University, unit, or program mission and strategic plans, advances in disciplinary knowledge, evolution of stakeholder needs, and changes in student preparation and capacity
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External Review by the Core Evaluation Committee

At the Spring 2015 SAS Faculty and Affiliates Meeting, a resolution was passed to establish a committee to evaluate the Core Curriculum. The resolution stated that the committee should consist of eight elected members, two from each of the disciplinary areas of SAS. The election was held in Fall 2015 by electronic ballot of the SAS faculty. After the committee had been elected, SAS Executive Dean Peter March issued a charge to the committee to conduct “a thorough review of the strengths and weaknesses of the Core Curriculum in achieving its stated purposes as a goals-based set of general education requirements.” The full text of the charge can be found in **Appendix D**. The Committee for the Evaluation of the Core (CEC) was asked to address questions related to three broad areas of inquiry: the student experience, structure and design, and governance and management.

The CEC began its work in earnest in Spring 2016. The CEC met with a variety of stakeholders in the Core, including students, CRC leadership, deans of the schools participating in the Core, and personnel from the SAS Office of Academic Services. The CEC also held a town hall meeting for the SAS

faculty. In November 2016, the CEC conducted surveys of students and faculty on their perception of, and experiences with, the Core.

The CEC submitted its final report to Executive Dean March in December 2016. The CEC concluded that the Core Curriculum serves “the educational interests of our students, both building their skills of critical thinking and writing, and exposing them to a wide range of academic disciplines, and potentially, interdisciplinary inquiry” (p. 2).⁸ However, the CEC argued that there was a need to revise and refine the Core Curriculum and its administration to reduce confusion and make it more transparent to faculty and students. The CEC made several recommendations in its report. The Executive Summary of the report with the recommendations can be found in **Appendix E**. The CEC’s recommendations can be classified into three categories: administrative and advising changes to improve student understanding and access to information about the Core Curriculum; revisions to the faculty-facing aspects of the Core Curriculum; and revisions to the requirements facing students, including the possible addition of a diversity requirement.

Executive Dean March solicited feedback on the CEC report and recommendations through a variety of channels, including a Town Hall meeting and meetings of the SAS department chairs and undergraduate program directors. Based on the feedback received, Executive Dean March charged the CRC to move forward with the first two categories of CEC recommendations and proposed that the consideration of the third category, revisions that would affect the requirements facing students, await the deliberations expected in AY 2017-18 on the addition of diversity and language requirements for all New Brunswick students.

Drawing on the recommendations of the CEC as well as its own evaluation of the Core Curriculum, the CRC developed a proposal to revise the faculty-facing aspects of the Core Curriculum. This proposal can be found in **Appendix F**. The goal of this proposal was to reduce confusion created by the perception of overlapping goals and make the desired learning outcomes more transparent to faculty and students alike. The proposed changes included the combination of goals, the elimination of redundant goals, and changes in goal wording. None of these changes affect the requirements students need to fulfill or the status of any course currently certified for the Core.

The CRC proposal was approved at the SAS Faculty and Affiliates meeting in May 2017. The changes will go into effect in AY 2017-18. The articulation of the revised Core Curriculum can be found in **Appendix G**. The most substantive changes are the restructuring of the Writing goals, the elimination of the background goals for the Historical Analysis (HST) and Social Analysis (SCL) goals, and the re-naming of the 21st Century Challenge goals to Contemporary Challenges.

The Writing goals have been reduced from five (s-1, s-2, t, u, and v) to two (WCd and WCr) learning goals. The five-goal formulation created confusion for faculty. Courses were required to be certified for at least three of the five goals, yet the student requirements were articulated in terms of two straightforward objectives: writing in the discipline and writing with revision. The five goals had significant overlap and many faculty complained it was difficult to assess these goals separately in the evaluation of student work. The revised structure aligns the faculty-facing learning outcomes with the requirements faced by students.

⁸ The full report can be found online at: <http://sas.rutgers.edu/custom/cec/CEC-Report-final.pdf>. The appendix with supporting data can be found at: <http://sas.rutgers.edu/custom/cec/CEC-appendices.pdf>

The background goals for the Historical and Social Analysis categories have been eliminated. The CRC determined that the learning outcomes articulated in these goals were redundant; the same learning outcomes were restated in more specific terms in the HST and SCL-specific goals. Eliminating the background goals does not change the goals the faculty have set for student learning, but does streamline the assessment of these goals.

The category 21st Century Challenges has been renamed, “Contemporary Challenges.” This change is aimed at broadening the scope of the challenges that can be addressed in courses certified for these goals.

The revised Core Curriculum consists of 20 learning outcomes.

CRC Internal Reviews and Revisions of Practices and Procedures

The CRC has also been proactive in assessing its own practices. Since the Core Curriculum was introduced in 2011, the CRC and the SAS Office of Undergraduate Education have taken a number of steps to help faculty develop and implement Core assessment plans. Rubrics for each of the Core goals have been developed and refined, and since AY 2013-14, these rubrics have been made available on the on-line course management tool, Sakai. The SAS Office of Undergraduate Education has already developed and posted revised rubrics for the revised Core Curriculum for AY 2017-18.

As noted above, in Fall 2015, the CRC launched an on-line Core assessment reporting system. The response from faculty and administrators has overall been very positive. Previously, undergraduate program directors were asked to collect assessment data from instructors and enter the data into a Microsoft Word document form. Many directors complained about the challenges of tracking down reports from instructors and the time costs of transferring the data from the instructors’ reports to the formatted Word document. The on-line system allows instructors to enter the data themselves and gives the undergraduate director the ability to review all reports from his/her department prior to submission. The undergraduate director must still chase down instructors to be sure they have filed reports, but the system simplifies the task of tracking the reports that are still outstanding.

Besides reducing the administrative burden of reporting Core assessment results, the on-line reporting system has several features that will improve the quality of the reporting going forward. The on-line form contains the same reporting fields as the old form, but is prepopulated with the goals for which a course is certified. The system allows for the generation of reports by Core goal or academic department, facilitating the analysis of Core assessment data by the CRC and other stakeholders. This feature allows the CRC to track courses for which assessment reports have not been filed, and therefore to follow up with the instructors and undergraduate program directors to improve the response rate. The on-line system will also serve as an archive of assessment reports going forward. The CRC, as well as undergraduate directors and instructors, will be able to refer to past reports to evaluate how assessment results have changed in response to modifications of instruction or assessment methods. It is notable that the introduction of the on-line reporting system coincided with an increase in compliance with reporting requirements as well as more voluntary reporting of Core assessment results. In addition, there has been an increase in the number of reports including plans for modification. This is an encouraging outcome of the improvements made to the Core assessment reporting process and may suggest that faculty engagement with the Core goals and the pace of “close-the-loop” activity have been underestimated until now.

In Fall 2015, the CRC implemented a new policy to perform maintenance reviews of courses previously certified for the Core. The focus for AY 2016-17 was on courses that had not been offered in the past three years. The CRC asked departments with such courses to commit to offering these courses in the near future or to consider retiring them from the Core. This led to the retirement of three courses from the Core list and to the revival of a number of others to the course schedule.

Future Directions in Assessment of the Core Curriculum

While we remain committed to the advantages in effectiveness that we believe derive from our authentic, embedded, direct assessment tools and process, as discussed above in the section on Assessment Plan, Structure and Process, now that we have graduated our first three cohorts of Core students (in Spring 2015, 2016, and 2017), the CRC will be exploring additional assessment tools that might be used near graduation to get a cumulative picture of student learning as the Core Curriculum further matures. One thought is to explore how the CRC might build on assessments being done in major program capstone courses, recognizing that different majors emphasize the further development of different subsets of Core Curriculum goals, along with their discipline or program specific learning goals. Another option might build on the natural overlap between our liberal arts and sciences Core Curriculum goals and the so-called ‘soft skills’ almost universally sought by employers to develop a direct, authentic, assessment tool that students would also be motivated to use for their own purposes.

Perhaps most important, it is already clear that this ongoing assessment process will ensure continued faculty attention to the Core Curriculum and its effectiveness, preventing the ossification of general education that removed general education from the daily concern of faculty in earlier decades. In fact, the Core continues to provoke lively discussions among faculty.

We are grateful for the role assessment plays in keeping the faculty actively engaged with undergraduate education and we look forward to presenting further progress to the ECA each year. The Core Requirements Committee, in alignment with the University, is committed to promoting and maintaining a genuine culture of improvement through direct faculty involvement in and ownership of the assessment of student learning.

Submitted on behalf of the Core Requirements Committee by:

Carolyn Moehling
Associate Dean of Undergraduate Education and Professor of Economics
School of Arts and Sciences

Core Requirements Committee, 2016-17

Acting Chair, Carolyn Moehling, Associate Dean of
Undergraduate Education, SAS

Douglas Blair, Economics and Political Science, SAS
Diane DeLauro, Office of Academic Services, SAS
Martha Haviland, Division of Life Sciences, Genetics,
SAS
Colin Jager, English, SAS
Robin Leichenko, Geography, SAS
Thomas Leustek, Associate Dean of Academic
Administration, SEBS
David Listokin, Center for Urban Policy Research,
EJBSPP
Gary Merrill, Cell Biology and Neuroscience, SAS
Andrew Murphy, Political Science, SAS

Lenore Neigeborn, Office of Academic Services, SAS
Timothy Power, Classics, SAS
Michael Saks, Mathematics, SAS
Kurt Spellmeyer, English and Director of the Writing
Program, SAS
Camilla Stevens, Latino and Caribbean Studies, Spanish
and Portuguese, SAS
Sharon Stoerger, Information, Technology, and
Informatics, SC&I
John Taylor, Chemistry and Chemical Biology, SAS
Can Uslay, Marketing, RBS
David Wilder, Psychology, SAS

Committee Staff:

Karen Dennis, Assistant Dean for Assessment,
Office of Undergraduate Education, SAS
Michelle Neumyer, Assistant Dean, Academic
Programs, SEBS (*alternate*)

SAS CORE CURRICULUM



Effective for first year students entering in fall 2011 and beyond and for transfer students entering fall 2012 and beyond.

The innovative SAS Core Curriculum establishes common goals that, along with a major and minor specialization, prepare SAS graduates for successful lives and careers built on a critical understanding of the natural environment, human behavior, and the individual's role in diverse societies. Conversant with multiple intellectual traditions, modes of analysis, and schools of thought and armed with well-developed communication and reasoning skills, SAS graduates are prepared to meet any challenge!

The distinctive SAS Core Curriculum cultivates and nurtures curiosity by emphasizing the process of inquiry and the creation of knowledge through debate, research, and scholarship. The SAS Core Curriculum incorporates SAS students into the research mission of our great university and arms them with the intellectual resources required for excellence in meeting the rapidly transforming challenges of the 21st century.

The SAS Core Curriculum is based on the **learning goals** that form the core of a modern liberal arts education at a leading 21st century public research university *and* that are sought after by graduate programs and employers *across* occupations and professions. The learning goals clearly articulate *what students will be able to do* upon completion of the Core, incorporating the reasons for these requirements right into the requirements themselves. Achievement of these learning outcome goals equips our students not just to get a first job, but to excel in that job, advance in that career, and change careers as the demands of the 21st century continue to evolve. At the same time, these goals push students to examine not just "*what*" they want to be, but more importantly, "*who*" they want to be, by discovering their values, talents, and passions.

The SAS Core Curriculum goals complement and reinforce each other and permeate all of our courses and fields of study. The Core Curriculum provides a solid catalyst for excellence in completing major, minor, and elective credits where the student will develop advanced skill in many of these Core goals. Defined in terms of learning goals, the innovative SAS Core Curriculum is different from the traditional model of general education distribution requirements that students at other schools fulfill by taking introductory courses in a range of majors. Each goal represents a particular type of critical thinking and problem-solving employed across the arts and sciences. Progress in completing the Core is measured not by the number of courses taken, but by the number of goals achieved in courses specially designed to put these goals front and center.

The SAS Core Curriculum begins with four learning goals that bring the diverse and rich intellectual heritage of the liberal arts and sciences to bear on the **21st Century Challenges** SAS graduates will face as global citizens and leaders. Students meet these goals in courses that join multidisciplinary scholarship with the most pressing issues of the day. Many of the new SAS *Signature* Courses – specially designed courses of grand intellectual sweep focused on questions of lasting importance taught by leading SAS scholar-teachers -- meet these goals and bring students and faculty together in communities of common interest and experience.

By emphasizing the ability to critically examine the natural environment, human behavior, and the individual's role in society, the Core learning goals prepare SAS students to be creative problem solvers, strong leaders, and reflective individuals in whatever life path they choose. The Core Curriculum's **Areas of Inquiry** learning goals equip SAS graduates with an understanding of knowledge, research, and the liberal arts and sciences throughout our history right up to tomorrow's cutting edge where our faculty work today. These goals stretch the boundaries of traditional academic disciplines by leading students back to those predisciplinary questions that transcend the artificial division of knowledge into distinct majors and minors.

The SAS Core Curriculum equips SAS students with the **Cognitive Skills and Processes** that are central to life-long learning and participation in the world of ideas and the corridors of power. Through the Core, SAS students hone their writing and communication skills and develop their quantitative and formal reasoning skills. And SAS students delve behind facile assumptions to examine the wide array of modern conduits of information (and misinformation) and their relationship to knowledge in the 21st century information age.

The SAS's exciting new Core Curriculum embodies our belief in and aspirations for our diverse and growing student body and reflects the mission of Rutgers University as a comprehensive public research university for the 21st Century.







The SAS Core Curriculum (ratified 5/08) Summary of Learning Outcomes

The SAS Core Curriculum focuses on the learning goals that form the core of a modern liberal arts education at a leading comprehensive 21st century public research university. Student progress in the Core is measured by the breadth of goals achieved, and a single course can fulfill multiple goals. Students exercise meaningful choice among courses from across disciplines specifically certified as meeting these goals.




Upon completion of the SAS Core Curriculum **STUDENTS WILL BE ABLE TO:**

21ST CENTURY CHALLENGES (6 credits) *Students must meet 2 goals.* [21C]




-  a. **Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on the world.**
-  b. **Analyze a contemporary global issue from a multidisciplinary perspective.**
-  c. **Analyze the relationship that science and technology have to a contemporary social issue.**
-  d. **Analyze issues of social justice across local and global contexts.**

AREAS OF INQUIRY



Natural Sciences (6 credits) – each course meets e and (f or g or both). *Students must meet 2 goals.* [NS]

-  e. **Understand and apply basic principles and concepts in the physical or biological sciences.**
-  f. **Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.**
-  g. **Identify and critically assess ethical and societal issues in science.**



Social and Historical Analysis (see HST and SCL below – all courses meet at least one of h, i, & j)

-  h. **Understand the bases and development of human and societal endeavors across time and place.**
-  i. **Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in social and historical analysis.**
-  j. **Identify and critically assess ethical issues in social science and history.**





Historical Analysis (3 credits) – all courses meet one (h, i, j) *Students must meet one (k or l).* [HST]

-  k. **Explain the development of some aspect of a society or culture over time, including the history of ideas or history of science.**
-  l. **Employ historical reasoning to study human endeavors.**

Social Analysis (3 credits) – all courses meet one (h, i, j) *Students must meet one (m or n).* [SCL]






-  m. **Understand different theories about human culture, social identity, economic entities, political systems, and other forms of social organization.**
-  n. **Apply concepts about human and social behavior to particular questions or situations.**

Arts and Humanities (6 credits) *Students must meet two goals.* [AH]



-  o. **Examine critically philosophical and other theoretical issues concerning the nature of reality, human experience, knowledge, value, and/or cultural production.**
-  p. **Analyze arts and/or literatures in themselves and in relation to specific histories, values, languages, cultures, and technologies.**
-  q. **Understand the nature of human languages and their speakers.**
-  r. **Engage critically in the process of creative expression**

COGNITIVE SKILLS AND PROCESSES




Writing and Communication - (9 credits: 355:101; one WCr (s2); and one WCd (t)) *Students must meet 4 goals.* [WC - WC101; WCr; WCd]

-  s. **(s1) Communicate complex ideas effectively, in standard written English, to a general audience.**
-  t. **(s2) Respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision.** [WCr]
-  u. **Communicate effectively in modes appropriate to a discipline or area of inquiry.** [WCd]
-  v. **Evaluate and critically assess sources and use the conventions of attribution and citation correctly.**
-  w. **Analyze and synthesize information and ideas from multiple sources to generate new insights.**

Quantitative and Formal Reasoning (6 credits or 3 plus placement out of 3) *Students must meet 2 goals.* [QFR - QFRq; QFRr or placement out of]



-  w. **Formulate, evaluate, and communicate conclusions and inferences from quantitative information.** (includes various quantitative methods courses as well as 640 courses) [QQ]
-  x. **Apply effective and efficient mathematical or other formal processes to reason and to solve problems.** (includes 640 courses and formal reasoning courses – or placement out of) [QR]

Information Technology and Research (3 credits or equivalent) *Students must meet one goal.* [ITR]

-  y. **Employ current technologies to access information, to conduct research, and to communicate findings.**
-  z. **Analyze and critically assess information from traditional and emergent technologies.**
-  aa. **Understand the principles that underlie information systems.**

A SINGLE COURSE MAY BE USED TO MEET MULTIPLE GOALS. ALL COURSES MUST BE CREDIT-BEARING, GRADED COURSES CERTIFIED BY THE SAS FACULTY AS MEETING CORE GOALS. (e.g. E credit courses cannot be used to meet goals, nor can pass/no credit courses.) Generally, students will need to take 10 – 14 courses to complete the Core, some of which may also fulfill major or minor requirements.

Appendix B
Alignment of Core Curriculum Learning Goals with [Rutgers University Learning Goals](#)

<div style="text-align: center;">  <p>CORE CURRICULUM</p> </div>	<div style="text-align: center;">  RUTGERS UNIVERSITY LEARNING GOALS </div>											
	Intellectual and Communication Skills					Understanding Human Behavior, Society, and the Natural Environment					Responsibilities of the Individual in Society	
	Critical Thinking	Communication	Mathematical Reasoning and Analysis	Scientific Inquiry	Information and Computer Literacy	Historical Understanding	Multi-cultural and International Understanding	Understanding Literary and Artistic Expression	Understanding the Bases of Individual and Social Behavior	Understanding the Physical and Biological World	Citizenship Education	Social and Ethical Awareness
21st CENTURY CHALLENGES												
a. human differences												
b. multidisciplinary current global issue												
c. science and technology related to social issues												
d. social justice local and global												
NATURAL SCIENCES												
e. basic principles & concepts												
f. assess evidence, methods, theory												
g. assess ethical & societal issues												
SOCIAL AND HISTORICAL ANALYSIS: shared goals												
h. human and societal across time & place												
i. assess evidence, methods, theory												
j. assess ethical issues												
HISTORICAL ANALYSIS												
k. analyze historical developments												
l. employ historical reasoning												
SOCIAL ANALYSIS												
m. theories of social organization												
n. application of social analysis												
ARTS AND HUMANITIES												
o. philosophical and theoretical issues												
p. arts and literatures												
q. nature of languages												
r. critical creative expression												
WRITING AND COMMUNICATION												
s-1. standard written English												
s-2. editorial feedback and revision												
t. effective in an area of inquiry or discipline												
u. critically evaluate & correctly cite sources												
v. synthesize multiple sources - new insights												
QUANTITATIVE AND FORMAL REASONING												
w. use quantitative information												
x. mathematical or formal reasoning												
INFORMATION TECHNOLOGY AND RESEARCH												
y. employ for research and communication												
z. assess information from technology use												
aa. principles of information systems												

Appendix C

21st Century Challenge Core Curriculum Student Learning Goal Rubrics [REVISED, 2012]

For all Core rubrics, see: <http://sasoue.rutgers.edu/core/rubrics-for-core-goals>

21st Century Challenges [21C] - Goal a

GOAL a - Student is able to... Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on the world.			
OUTSTANDING	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
<p>Specifically explicates links between multiple types of human difference and individuals' or groups' experiences of and perspectives on the world.</p> <p>Evidences a sophisticated understanding of those differences and their effects on an a 21st century challenge.</p>	<p>Examines links between some types of human difference relevant to the course and individuals' or groups' experiences and perspectives on the world.</p> <p>Demonstrates an understanding of some effect(s) of those differences on a 21st century challenge.</p>	<p>Identifies links between human differences relevant to the course and individuals' or groups' experiences and perspectives on the world, largely through satisfactory presentation of course materials.</p> <p>Demonstrates some understanding of how some differences affect a 21st century challenge.</p>	<p>Fails to link significant forms of human difference relevant to the course to individuals' or groups' experiences of the world and perspectives on the world as relevant to focus of the particular course.</p> <p>Fails to delineate the impact of differences on the issues that are central to the course.</p>

21st Century Challenges [21C] - Goal a

GOAL b – Student is able to... Analyze a contemporary global issue from a multidisciplinary perspective.			
OUTSTANDING	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
<p>Demonstrates a sophisticated understanding in identifying, comparing, and contrasting at least two different disciplinary perspectives as applied to a pressing contemporary global issue.</p> <p>Critically analyzes and assesses the advantages/ scope and disadvantages/ limits of each perspective.</p> <p>Draws original and thoughtful conclusions.</p>	<p>Identifies, compares, and contrasts at least two different disciplinary perspectives as applied to a pressing contemporary global issue.</p> <p>Notes some advantages/ scope and disadvantages/ limits of each perspective.</p> <p>Touches on broader connections and implications.</p>	<p>Satisfactorily summarizes different disciplinary perspectives on a contemporary global issue.</p> <p>Acknowledges that each perspective has advantages and disadvantages.</p> <p>Satisfactorily presents course materials.</p>	<p>Fails to clearly identify disciplinary perspectives any relevant global issues.</p> <p>Fails to accurately distinguish between at least two different disciplinary perspectives on the issue.</p> <p>Fails to identify and explicate the advantages and disadvantages of each perspective.</p> <p>Lacks any critical analysis of any disciplinary approach to the issue.</p>

21st Century Challenges [21C] - Goal c

GOAL c - *Student is able to...* **Analyze the relationship that science and technology have to a contemporary social issue.**

OUTSTANDING	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
<p>Critically analyzes the extent to which science and technology can address a 21st C social issue AND/OR critically explicates how the issue itself is the result of advances in scientific understanding or new technologies.</p> <p>Thoroughly explores the challenges and opportunities associated with various ways address the issue.</p> <p>Demonstrates a high level of scientific literacy beyond that necessary for responsible citizenship and informed life choices.</p> <p>Distinguishes between questions that are fundamentally moral or political and those that are scientific or technological.</p>	<p>Explains the extent to which a 21st C social issue can be addressed by science and technology AND/OR explains how the issue itself is the result of advances in scientific understanding or new technologies.</p> <p>Assesses possible ways to address the issue, with some attention to the complexities or challenges associated with each.</p> <p>Demonstrates a level of scientific literacy necessary for responsible citizenship and informed life choices.</p> <p>Makes some distinctions between questions that are basically moral or political and those that are scientific or technological.</p>	<p>Satisfactorily presents course material on the extent to which a 21st C social issue can be addressed by science and technology AND/OR how the issue itself is the result of advances in scientific understanding or new technologies.</p> <p>Identifies possible ways to address the issue, with some appreciation for the complexities or challenges associated with each.</p> <p>Demonstrates an acceptable level of scientific literacy.</p>	<p>Fails to articulate a link between a 21st C social issue and advances in scientific understanding or the development of new technologies.</p> <p>Fails to identify possible solutions or the need for possible solutions.</p> <p>Major gaps in scientific literacy.</p> <p>Fails to distinguish between scientific, moral, and political judgments. Relies on opinion or assertion instead of analysis.</p>

21st Century Challenges [21C] - Goal d

GOAL d - *Student is able to...* Analyze issues of social justice across local and global contexts.

OUTSTANDING	GOOD	SATISFACTORY	UNSATISFACTORY (D/F)
<p>Provides detailed critical analysis of what “social justice” means in local and global contexts and offers a critical assessment of existing approaches.</p> <p>Provides a sophisticated exploration of the causes of a particular social justice(s) or injustice(s) and the connections to other local and global issues.</p> <p>Critically and thoughtfully evaluates ways to advance social justice in the 21st c and identifies who/what would need to change to achieve social justice in a particular context.</p> <p>Demonstrates original thinking in assessing the complexities of the effort and potential solutions.</p>	<p>Provides a robust explanation of what “social justice” means in local and global contexts.</p> <p>Explains the causes of a particular social justice(s) or injustice(s), placing it in local and global contexts.</p> <p>Demonstrates an understanding of the goal of advancing social justice in the 21st C and who/what would need to change to achieve social justice in a particular context.</p> <p>Identifies resources for and obstacles to change, and alternative solutions.</p>	<p>Satisfactorily presents course material on what social justice means in local and global contexts.</p> <p>Describes causes of social (in)justice with some attention to local and global contexts.</p> <p>Touches on obstacles to and resources for change, and alternative solutions.</p>	<p>Shows little understanding of what is meant by social justice and little or no reflection on the meaning of social justice or the role context might play.</p> <p>Minimal and/or unexamined claims about causation.</p> <p>Fails to provide any context for the existing state of affairs, or any coherent discussion of paths to change.</p> <p>Relies on opinion and polemic.</p>

Appendix D
Charge to the Core Evaluation Committee

MEMORANDUM

TO: Faculty of the School of Arts and Sciences
FROM: Peter March
RE: Evaluation of the Core Curriculum
DATE: November 10, 2015

Charge to the ad hoc SAS Committee Constituted to Evaluate the Core Curriculum

Preamble. In May, 2008, the Arts and Sciences faculty approved the creation of a new Core Curriculum to replace the interim [*Liberal Arts and Distribution Requirements*](#) that were put in place when Rutgers, Douglass, Livingston, and University Colleges amalgamated to form the School of Arts and Sciences. The new Core was designed by a faculty committee with broad representation from the various Rutgers New Brunswick Schools, departments, and programs and was ratified by the SAS and Affiliates faculty. It marked a significant departure from the traditional model of distribution requirements that made up the general education distribution requirements of the four colleges, substituting a model predicated on a defined set of learning goals that could be met in multiple ways.

In addition to approving the structure of the new Core Curriculum, the faculty also approved the creation of a new Core Requirements Committee (CRC) charged with implementing the curriculum. The founding document [*A Report from the Ad Hoc Core Curriculum Committee of May 6, 2008*](#) notes that implementation would take several years. It also emphasizes the ongoing need to monitor the effectiveness of the Core in providing a high-quality education that prepares students for success in fulfilling other degree requirements and leads to positive outcomes after graduation. The Core was launched with the incoming class in 2011.

The Core holds a unique place in the architecture of New Brunswick undergraduate education as the only curricular element that spans nearly all the New Brunswick Schools. Only students in the School of Engineering and the School of Pharmacy, which is now part of RBHS, do not complete the Core. The Edward J. Bloustein School of Planning and Public Policy (EJBSPP), the School of Communication and Information (SC&I), the School of Management and Labor Relations (SMLR), the School of Social Work (SSW), the Mason Gross School of the Arts (MGSA) BA programs, and the five-year Graduate School of Education (GSE) do not directly admit students. In order to complete a major in one of these Schools, students must matriculate in the School of Arts and Sciences (SAS).

Additionally, undergraduate students matriculating in the Rutgers Business School (RBS) and those SAS students planning to complete majors offered by other Schools must complete the Core Curriculum. These Schools are represented as Affiliates on the Core Requirements Committee under provisions in the [*School of Arts and Sciences Bylaws*](#). As of fall 2015, the School of Environmental and Biological Sciences (SEBS) also requires its students to complete the Core

(plus an experiential learning requirement). As provided for in the founding documents, all of these Schools may offer courses that satisfy various Core goals. This practice was a continuation of previous college practices, not an innovation of the Core Curriculum.

We have graduated a cohort of students who entered the university after the introduction of the Core Curriculum - and who spent their entire undergraduate career at Rutgers with the Core in effect. So, the time seems right to evaluate the degree to which the Core has fulfilled the expectations of a goals-based general education as articulated in the founding document. The importance of such a re-evaluation was underlined by the passage of a resolution at the May, 2015 School of Arts and Sciences faculty meeting calling for the election of a committee for this purpose (cf. Appendix 1).

Charge. Accordingly, I am charging the newly-elected Core Evaluation Committee (CEC) (cf. Appendix 2) with the task of conducting a thorough review of the strengths and weaknesses of the Core Curriculum in achieving its stated purposes as a goals-based set of general education requirements. The CEC may make recommendations to the Executive Dean of Arts and Sciences regarding possible modifications and changes to our current requirements so as to provide an excellent general education curriculum to Rutgers undergraduate students.

The CEC may recommend substantial revision of the Core, including replacement with another means of providing a broadly-based general education, such as a distribution model; or it can recommend any number of revisions that retain the basic goal-based approach and practical design of the Core while modifying and improving specific elements. In any event, CEC recommendations for change should be consistent with best practices among our Committee on Institutional Cooperation (CIC) and AAU peers. Mechanisms to implement CEC recommendations accepted by the Executive Dean are not within the specific charge to the committee but rather will be determined, as needed, by the Executive Dean in consultation with the faculty.

In fulfilling its charge, the CEC will consult widely and systematically with the Core's stakeholders. These include: members of the SAS faculty; a broad range of students; current and previous members of the Core Requirements Committee; the leadership, involved faculty, and staff from the other Schools in New Brunswick with majors who take the Core; and administrators and staff in SAS who work regularly with undergraduates, such as advisors in the Office of Academic Services.

As part of its review process, the CEC, and all Arts and Sciences faculty, should familiarize themselves with key documents associated with the creation and implementation of the Core, including

- [*A Report from the Ad Hoc Core Curriculum Committee of May 6, 2008*](#)
- [*Transforming Undergraduate Education, Report of the Task Force on Undergraduate Education, July 18, 2005;*](#)
- [*The Office of Undergraduate Education web-page information and resources on the Core for faculty*](#)
- [*CRC Report to the Executive Dean, October 2014*](#)

Finally, I ask that the CEC be prepared to give a short oral report on its organization and plans at the upcoming December 14th meeting of the Arts and Sciences faculty and that the Committee's final written report be available by the May meeting of the Arts and Sciences faculty.

Guidance. Rutgers has changed significantly since the Core Curriculum was adopted in 2008, notably with the integration of Rutgers Biomedical and Health Sciences (RBHS), the adoption of Responsibility Center Management (RCM), the launch of an Honors College, and the growth in intended STEM majors. During the same period, there have been substantial changes in the patterns of students' disciplinary choices at universities nationwide. In addition, our Middle States Commission on Higher Education accreditor continues to emphasize assessment of student achievement of learning goals and its use to improve academic outcomes (see, e.g., [*Standards for Accreditation and Requirements of Affiliation \(2014\)*](#) and [*Middle States Commission on Higher Education*](#)). Accordingly, this evaluation of the Core Curriculum should take into account the current context, which in some respects is quite different from the context within which the Core was adopted seven years ago.

The issue before us is to evaluate the extent to which the goal-based approach to general education embodied in the Core is serving the purposes for which it was adopted and to recommend any changes that may improve general education at Rutgers New Brunswick. While the new contextual factors have to be taken into account when recommending change, to the greatest extent possible the committee's recommendations should be based strictly on academic judgments about what will prepare students for success in fulfilling other degree requirements and lead to positive outcomes after graduation.

The following questions illustrate the range of issues that the CEC may wish to investigate as part of its mandate. The committee should not feel obliged to address every question in its final report and it may choose to consider additional questions.

Student Experience. Does the Core Curriculum serve Rutgers undergraduate students well? In particular,

- To what extent do students who complete the Core have the right mix of skills and knowledge to pursue upper-level course work? Or, in other words, to what extent does the Core successfully prepared students for success in fulfilling other degree requirements and led to positive outcomes after graduation?
- To what extent are the Core requirements appropriately communicated to students? How might communication be improved?
- To what extent do students understand the Core to provide a coherent and meaningful approach to liberal arts and sciences education?
- Are there any Core requirements that students have difficulty meeting?
- To what extent is the Core appropriately aligned with undergraduate majors and minors? How might better alignment be brought about?

Structure and Design. Has the structuring of the Core Curriculum around 21st Century Challenges, Areas of Inquiry, Cognitive Skills and Practices, with their associated Learning Goals, and Signature Courses been an effective design? In particular,

- To what extent are the 21st Century Challenges, Areas of Inquiry and Cognitive Skills and Processes still relevant and should they continue to play a central role in the Core?
- To what extent is the current set of Learning Goals appropriate? Are there ways they should be modified, expanded, condensed, or simplified?
- To what extent are the Signature Courses a successful part of the Core? What should their role be?

- Can we determine any effect the structure and design of the Core has on patterns of student preferences?
- Has the policy of allowing single courses to fulfill multiple Core goals been successful? How might it be changed or modified to produce better student learning?
- To what extent are the Core Curriculum's purposes and requirements appropriately communicated to faculty?
- To what extent have faculty incorporated Core advising into their major advising?
- To what extent does the faculty view the Core as providing a more coherent and meaningful approach to general education than other available models?
- To what extent are Affiliate Schools and academic units outside Arts and Sciences well served by the Core? Have they identified strengths and weaknesses of the Core that differ from those voiced by Arts and Sciences faculty?

Governance and Management. Are the governance structure and management practices of the Core Curriculum effective? In particular,

- To what extent does the membership structure of the Core Requirements Committee appropriately reflect the Core's stakeholders?
- To what extent are the criteria used by the Core Requirements Committee to evaluate courses available to faculty before submitting courses, and to what extent are they perceived to be appropriately applied?
- To what extent is the process for modifying the Core or adding and removing courses appropriate and effective?
- To what extent is student achievement of Core learning goals in Core courses being appropriately assessed? Are instructors using assessment results effectively to improve course quality? How might the assessment of learning goals be improved?

Appendix 1 – Resolutions of the Arts and Sciences Faculty, May 7, 2015

"Be it resolved that an elected ad hoc SAS faculty committee shall be established to evaluate the Core. This evaluation shall be based on quantitative data as well as on faculty and student experience. The committee shall be established using the procedure currently used to elect SAS faculty committees. The committee shall have eight elected members, two from each of the four subareas of the SAS. The SAS Nominating and Elections Committee shall seek volunteers who wish to serve on this ad hoc committee and shall prepare a slate of sixteen (16) candidates, four (4) from each sub-area. Eight (8) of them shall be chosen by election. The ballot shall include three lines for write-in candidates. The ad hoc committee shall distribute its report prior to the December 2015 meeting of the SAS. It shall consider such recommendations as: 1) Abolishing the CORE and moving to a straightforward distribution requirement; 2) Modifying the CORE, to enhance the educational experience of SAS students; to reexamine the learning goals and assessment, as well as the vision and mission of the CORE; 3) Allowing only SAS courses to fulfill the CORE; 4) Establishing a language requirement."

Appendix 2 – Membership of the Core Evaluation Committee

Elected Members

Eric Carlen, Mathematics

Lori Covey, Cell Biology and Neuroscience

Torgny Gustafson, Physics and Astronomy

Paul McLean, Sociology

Kathleen Scott, Cell Biology and Neuroscience

Barry Sopher, Economics

Mark Wasserman, History

Carla Yanni, Art History

Administrative Support

Shari Reiner, Executive Dean's Office

Appendix E

EXECUTIVE SUMMARY OF THE REPORT OF THE SAS CORE EVALUATION COMMITTEE

December 15, 2016

WORK OF THE COMMITTEE

The Core Evaluation Committee (CEC) was elected in November 2015 and charged by Executive Dean of SAS Peter March with conducting a thorough evaluation of the current Core Curriculum in the Rutgers School of Arts and Sciences in New Brunswick. The CEC held 30 two-hour meetings between December 2015 and December 2016, as well as a town-hall style meeting with SAS faculty and five focus groups with undergraduates. The CEC met with representatives of the SAS Office of Undergraduate Education who administer the Core Curriculum, including those with direct oversight for Assessment of Core Curriculum courses; members of the Core Requirements Committee (CRC), the body that is charged with initial certification of courses for the Core Curriculum and periodic review of existing courses in the Core Curriculum; staff members of the SAS Advising Office, who are the first point of contact that students have when first admitted, and who also have primary responsibility for the content and functionality of the Degree Navigator system; representatives from the Center for Teaching Advancement and Assessment Research; representatives of both the School of Environmental and Biological Sciences and the School of Communication and Information, whose students are required to complete the Core Curriculum and whose faculty, as SAS Affiliates, can submit courses to the CRC for Core certification; student representatives of the Chancellor's Task Force on Diversity; and representatives of the Chancellor's Task Force on Foreign Languages. The CEC also received numerous private communications from SAS faculty members with detailed comments, observations and suggestions related to the Core Curriculum. Finally, the CEC conducted separate on-line surveys of students and of faculty to assess, for students, their experience with the Core Curriculum and, for faculty, their experience with the Core certification process, with the assessment process, and with advising and teaching in the Core Curriculum. After due deliberation and discussion of our findings, the CEC has formulated a set of recommendations that we believe will improve the functioning and value of the Core Curriculum, as experienced by both students and faculty. The recommendations are listed below. Further discussion and detailed rationale for the recommendations may be found in the full report of the committee, which will be submitted to Executive Dean of SAS Peter March by early next week.

RECOMMENDATIONS

Part I: Creating a more workable core for our students

Recommendation I-1: The technical systems that students use to choose and register for courses should be upgraded to make the information most useful to students available in one place. This information would include what Core goals are satisfied by each course in an easily searchable

manner, when each course is regularly offered (e.g. each semester, every fall semester, etc.) and links to either the course syllabus or a detailed course synopsis.

Recommendation I-2. Core Courses should be offered on a regular schedule, and the information on when a course is available should be made readily available to students. The CEC strongly recommends that Core courses be taught at least every other year, with some committee members recommending that Core courses be required to be offered every year. Courses in the Core that have not been taught for two years should be dropped from the list of active Core courses.

Recommendation I-3. All courses in the core should have their syllabi (or a detailed synopsis) available to students from DN, the Core website, and the Schedule of Classes, preferably in a standardized format that indicates how they address the Core goals for which they have been approved.

Recommendation I-4: SAS should develop an advising system and appropriate technology to enable each student to develop an academic plan early in his or her academic career. In more structured majors that include pre-requisites and sequences of courses, this is particularly important.

Recommendation I-5: SAS should analyze course distributions over time and relative to demand, work with departments to offer a wide range of times and campuses for Core courses, and, to the extent possible, expand course offerings for high-demand courses.

Part II: Refining the goal-based curriculum

Recommendation II-1. Simplify the Core by eliminating and combining some of the learning goals and categories within the sections and subsections and simplifying the descriptions of the goals (specific suggestions are included below).

Recommendation II-2. Clarify the difference between the course “requirements” in each area of the Core, and the number of “learning goals” that must be met.

Recommendation II-3. Clarify the role of the historical perspective in the 21C goals by modifying goal b to read “Analyze a contemporary global issue from a multidisciplinary perspective, including the historical.”

Recommendation II-4. Core courses should be certified for a maximum of two requirements. Courses that currently meet three requirements should be re-evaluated.

Recommendation II-5. A question about the learning goals should be added to the SIRS for each Core course: “did this course fill such-and-such goal or these goals?” The language can be taken from the Core website.

Recommendation II-6. The CEC recommends re-evaluating the ITR requirement (Information technologies and Research) to reflect the fact that the central issue of this requirement is the critical evaluation of information, not technology itself. A possible wording for this would be: Critical evaluation of information: One course in any field carrying three or more credits, or equivalent, that is designed to develop the ability of students to gather information on a topic from a variety of sources,

to critically evaluate this information and synthesize or interpret it. It is intended that use will be made of current and emerging technology, and will address the issues raised by the flood of information arising through these new technologies, but the focus of the course need not be technological per se. This course may also count toward the major, the minor, or Part I (21st Century Challenges) or II (Areas of Inquiry) of the Core requirements.

Recommendation II-7: The CEC recommends that the CRC review the three-course writing requirement

Recommendation II-8. Faculty teaching Core courses should place more emphasis on the goals throughout the course.

Part III: Consideration of additions to the Core

Recommendation III-1. A diversity requirement should be added to the Core Curriculum without adding additional credit hours to the Core.

Recommendation III-2. If a language requirement is added to the Core, it should not add additional courses to the Core.

Part IV: Governance and management.

Recommendation IV-1. The SAS Nominating Committee should solicit self and other nominations for all committees every year, and should work to involve more faculty, including recently tenured associate professors.

Recommendation IV-2. SAS should hire additional staff with expertise in assessment to work with faculty.

Recommendation IV-3. The CRC should continue to review existing courses and should work with area deans and departments to develop courses in areas where there are insufficient offerings and when requirements are added to the Core.

Recommendation IV-4. The Core Curriculum should continue to include appropriate courses from non-SAS schools as designated in the by-laws, and these courses should be held to the same standards for review as SAS courses.

IMPLEMENTATION OF RECOMMENDATIONS

The members of the CEC believe that the recommendations proposed here can be implemented in a natural way through the ongoing work of the CRC, with appropriate directives from the office of the Executive Dean of SAS. We believe that a sense of having an investment in the Core Curriculum and of ownership of the results of the Core Curriculum by SAS faculty is more likely if the traditional disciplinary areas in SAS take an active role in recommending the scope of courses that departments in their areas should have represented in the Core, and in calling upon their departments to fill gaps

in the Core where needed. Individual departments, perhaps in concert with other departments in their disciplinary areas, may also be called upon to promulgate appropriate standards and modes of assessing their Core course that are meaningful to them. The recommendations we have proposed are meant primarily to improve the functioning and to enhance the student experience of the Core, as well as to make more transparent the functioning of the certification and assessment of courses in the Core for faculty members. But the success of the Core Curriculum as a general education system requires active engagement of the body of regular faculty members. It will not be successful if faculty members regard it as *someone else's problem*, to be fixed by administrators or staff members. Educated students are one of the main outputs of the university, and the faculty should consider the possibility that one of their biggest impacts on the world may be the cumulative benefits to the students we teach.

Read at the SAS Faculty and Affiliates meeting, December 15, 2016.

Eric Carlen, Department of Mathematics

Lori Covey, Department of Cell Biology and

Neuroscience Torgny Gustafsson, Department of

Physics and Astronomy Paul McLean, Department of

Sociology

Kathleen Scott, Department of Cell Biology and Neuroscience

Barry Sopher, Department of Economics

Mark Wasserman, Department of History

Carla Yanni, Department of Art History

Appendix F
CRC Proposal to Revise the Core Curriculum

PROPOSAL TO SIMPLIFY FACULTY-FACING ASPECTS OF THE CORE CURRICULUM

The Core Evaluation Committee (CEC) concluded that the Core Curriculum serves “the educational interests of our students, both building their skills of critical thinking and writing, and exposing them to a wide range of academic disciplines and, potentially, interdisciplinary inquiry” (p. 2). However, the CEC argued that the Core needed to be revised and refined to reduce confusion and make it more transparent to faculty and students. The CEC noted, “Combining closely related goals and deleting those that have been difficult to put into practice would create a more coherent Core Curriculum that is easier to understand and assess” (p. 16).

Some of the recommendations of the CEC would involve changing the requirements facing students. The consideration of such changes must await the conclusions of the campus-wide deliberations on the possible additions of diversity and language requirements for all New Brunswick students. At that point, deliberate and thoughtful care needs to be taken in proposing and implementing such changes.

Many of the recommendations to simplify goals and streamline aspects of the curriculum’s structure, however, could be enacted without changing the requirements facing students. Faculty often complain that the faculty-facing version of the Core is too complicated and as such it is difficult to implement and assess. Students know that they must meet Core requirements in 10 categories whereas faculty are presented with 27 goals. Simplifying the faculty-facing structure of the Core would reduce confusion, make it easier to prepare and review proposals for Core certification, and lead to more effective assessment of student learning outcomes.

The Core Requirements Committee (CRC), therefore, has prepared this proposal to revise the faculty-facing aspects of the Core Curriculum. This proposal was developed in two phases. In the first phase, subcommittees were charged with drafting proposals for revising five sets of Core goals: 21C, NS, HST and SCL, WC and ITR. A couple of these subcommittees included past members of the CRC to ensure a wider range of perspectives were involved in the process. In the second phase, the subcommittee drafts were presented and discussed at a meeting of the full committee. The proposal presented in this document is the outcome of that discussion.

Section I presents the CRC proposal for the revised Core Curriculum. Section II provides comparisons of the current and revised Core, along with justifications for the proposed changes.

I. PROPOSED REVISION OF THE CORE CURRICULUM

Upon completion of the Core Curriculum **STUDENTS WILL BE ABLE TO:**

CONTEMPORARY CHALLENGES [CC] - (6 credits)

Students must take two degree credit-bearing courses that meet one or more of these goals.

- a. Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on contemporary issues.
- b. Analyze a contemporary global issue from a multidisciplinary perspective.
- c. Analyze the relationship that science and technology have to a contemporary social issue.
- d. Analyze contemporary issues of social justice.

AREAS OF INQUIRY

Natural Sciences [NS] (6 credits) *Students must take two degree credit-bearing courses that meet one or more of these goals. Each course meets goal e.*

- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

Historical Analysis [HST] (3 credits)

Students must meet one of (k or l).

- k. Explain the development of some aspect of a society or culture over time.
- l. Employ historical reasoning to study human endeavors, using appropriate assumptions, methods, evidence, and arguments.

Social Analysis [SCL] (3 credits)

Students must meet one of (m or n).

- m. Understand different theories about human culture, social identity, economic entities, political systems, and other forms of social organization.
- n. Employ tools of social scientific reasoning to study particular questions or situations, using appropriate assumptions, methods, evidence, and arguments.

Arts and the Humanities [AH] (6 credits)

Students must meet two goals.

- o. Examine critically philosophical and other theoretical issues concerning the nature of reality, human experience, knowledge, value, and/or cultural production. [AHo]
- p. Analyze arts and/or literatures in themselves and in relation to specific histories, values, languages, cultures, and technologies. [AHp]
- q. Understand the nature of human languages and their speakers. [AHq]
- r. Engage critically in the process of creative expression. [Ahr]

COGNITIVE SKILLS AND PROCESSES

Writing and Communication [WCR; WCD] (9 credits)

*Students meet **WCR** in 01:355:101. Students must take two additional courses that include instruction on*

writing and communication, one that includes revision = **WCR** and one that involves communication in the discipline = **WCD**.

WCR. Communicate complex ideas effectively, in standard written English, to a general audience, and respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision.

WCD. Communicate effectively in modes appropriate to a discipline or area of inquiry; evaluate and critically assess sources and use the conventions of attribution and citation correctly; and analyze and synthesize information and ideas from multiple sources to generate new insights.

Quantitative and Formal Reasoning [QQ; QR] (6 credits)

Students must meet two goals.

w. Formulate, evaluate, and communicate conclusions and inferences from quantitative information.

[QQ]

(includes various quantitative methods courses as well as 640 courses)

x. Apply effective and efficient mathematical or other formal processes to reason and to solve problems. **[QR]**

(includes 640 courses and formal reasoning courses)

Information Technology and Research [ITR] (3 credits or equivalent)

Students must meet one goal.

y. Employ current technologies to access and evaluate information, to conduct research, and to communicate findings.

aa. Understand the principles that underlie information systems.

II. COMPARISON OF CURRENT TO PROPOSED CORE AND JUSTIFICATION OF PROPOSED CHANGES

A. 21ST CENTURY CHALLENGES

Current:

21ST CENTURY CHALLENGES [21C] - (6 credits)

Students must meet 2 goals.

- a. Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on the world.
- b. Analyze a contemporary global issue from a multidisciplinary perspective.
- c. Analyze the relationship that science and technology have to a contemporary social issue.
- d. Analyze issues of social justice across local and global contexts.

Proposed:

CONTEMPORARY CHALLENGES [CC] - (6 credits)

Students must take two degree credit-bearing courses that meet one or more of these goals.

- a. Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on contemporary issues.
- b. Analyze a contemporary global issue from a multidisciplinary perspective.
- c. Analyze the relationship that science and technology have to a contemporary social issue.
- d. Analyze contemporary issues of social justice.

Justification:

The 21st century challenge goals are a unique feature of the Rutgers New Brunswick Core Curriculum. The committee that formulated the Core Curriculum viewed this uniqueness as a strength, something that set the Rutgers New Brunswick general education program apart from general education programs at peer institutions. However, over the years, this section of the Core has been the target of the most complaints from faculty. The most common complaint is that all of the courses taught at a research university like Rutgers are relevant to the 21st century. The CEC report noted that some faculty in the humanities believe that these goals are biased against the historical disciplines.

The CRC spent most of its full committee deliberations on the 21st century challenge goals. In the end, the CRC decided to recommend only modest changes: a change in the title from "21st Century" to "Contemporary" challenges, and the addition of the modifier "contemporary" to some of the goals to make it clear that the focus should be on a current issue. Although modest, the change in title is meant to broaden the scope of the challenges that could be addressed in courses certified for these goals to those that pre-date the year 2000. The CRC also believes that the "21st Century" nomenclature will in a few years seem out of date, and "Contemporary" allows more flexibility in interpretation.

The CRC considered proposals for more radical changes to these goals, but all of these would have changed the requirements facing students. These proposals sought to address the perceived need for a diversity or cultural competency requirement. One proposal was to require all students to take a course that meets goal a ("Analyze the degree to which forms of human difference shape a person's experiences of and perspective on the world"), and then one other course that meets any of the goals a-d. Another proposal was to replace the current set of goals with goals that would fit under the title, "Global Studies

and Social Diversity” and foster the understanding of the pluralistic nature of cultures, societies, and institutions around the world. These proposals could be a starting point for the discussion of how to incorporate a diversity goal into the Core Curriculum.

The CRC decided not to endorse the CEC recommendation to add “including the historical” to goal **b** so that it would read “Analyze a contemporary global issue from a multidisciplinary perspective, including the historical.” The CRC agrees that courses taking a historical perspective on a contemporary issue should be certified for this goal. Indeed, in the past couple of years, the CRC has certified a number of such courses for the 21C learning goals. The CRC believes that the addition of the “including the historical” is not necessary and could create confusion if some faculty interpret it as requiring courses to take an historical approach to a contemporary challenge.

B. AREAS OF INQUIRY

1. Natural Sciences

Current:

Natural Sciences [NS] (6 credits)

Students must meet 2 goals – each course meets e and (f or g or both).

- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.
- g. Identify and critically assess ethical issues in science.

Proposed:

Natural Sciences [NS] (6 credits) *Students must take two degree credit-bearing courses that meet one or more of these goals. Each course meets goal e.*

- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

Justification:

The CRC is proposing to drop goal **g** and to eliminate the requirement for students that they meet two goals in **NS**.

There is considerable overlap between goal **g** in the Natural Sciences and goal **c** in 21C, both pedagogically as well as in courses certified (of the 19 courses certified for **g**, 11 of them are also certified for **c**). Thus, the CRC believes it would simplify the core, without significant impact on student learning or faculty teaching/assessment, to remove goal **g**. However, both goals **e** and **f** are integral to the teaching and learning of the natural science disciplines and thus the CRC believes both should remain in place. The CRC also believes that the assessment required to measure student learning in **e** and **f** is sufficiently different to suggest that the two goals remain separate.

Although the CRC anticipates that the vast majority of courses certified in NS will be certified for both **e** and **f** (as evidenced by the current data, 60 of the courses are certified for **e** and **f** whereas only 13 are certified for only **e** and **g**), there may be faculty who feel that their course does not enable students to

meet both learning goals **e** and **f**. Thus, if goal **g** is eliminated, these faculty should have the flexibility to assess only goal **e**.

The requirement that students had to meet two goals was met *de facto* by the previous requirement that all courses meet at least two goals. As the proposal is that courses might be certified to just meet goal **e**, the CRC believes it is reasonable to remove this requirement.

2. Social and Historical Analysis

Current:

Social and Historical Analysis

*(see **HST** and **SCL** below – all courses meet at least one of h, i, & j)*

- h. Understand the bases and development of human and societal endeavors across time and place.
- i. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in social and historical analysis.
- j. Identify and critically assess ethical issues in social science and history.

Historical Analysis [HST] (3 credits)

Students must meet one of (k or l) - all courses meet one of (h, i, j) above.

- k. Explain the development of some aspect of a society or culture over time, including the history of ideas or history of science.
- l. Employ historical reasoning to study human endeavors.

Social Analysis [SCL] (3 credits)

Students must meet one of (m or n) - all courses meet one of (h, i, j) above.

- m. Understand different theories about human culture, social identity, economic entities, political systems, and other forms of social organization.
- n. Apply concepts about human and social behavior to particular questions or situations.

Proposed:

Historical Analysis [HST] (3 credits)

Students must meet one of (k or l).

- k. Explain the development of some aspect of a society or culture over time.
- l. Employ historical reasoning to study human endeavors, using appropriate assumptions, methods, evidence, and arguments.

Social Analysis [SCL] (3 credits)

Students must meet one of (m or n) .

- m. Understand different theories about human culture, social identity, economic entities, political systems, and other forms of social organization.
- n. Employ tools of social scientific reasoning to study particular questions or situations, using appropriate assumptions, methods, evidence, and arguments.

Justification:

The CRC is proposing the elimination of the background goals and some revision of the language of goals **k-n**.

The “background” goals are unique to this part of the Core Curriculum and therefore create confusion for faculty. The CRC believes that these goals can be eliminated without changing the overall learning objectives of the **HST** and **SCL** requirements.

The goal articulated in background goal **h** is restated in more specific terms in goals **k** and **m**.

Background goal **i** adds detail that enhances what is intended for goals **l** and **n**. Therefore, the CRC is proposing incorporating the language of goal **i** into those goals.

The CRC believes that the study of ethics belongs in the Core Curriculum. However, background goal **k** seems oddly placed and worded. Is it intended to cover the discussion of ethics or the discussion of ethical approaches to social and historical analysis? The former belongs in a general education curriculum, and in the current version of the Core is included in goals **d** and **o**. The latter certainly belongs in major programs in social science and history but is most often addressed in more specialized methods courses targeted at majors.

For goal **k**, the CRC is proposing eliminating the phrase, “including the history of ideas or history of science.” Courses in these two subfields should, and are, certified for the HST learning goals. The specific mention of these fields in goal **k** is inconsistent with the wording of other learning goals and is unnecessary.

3. Arts and the Humanities

Current and Proposed: (No changes proposed for these goals.)

Arts and the Humanities [AH] (6 credits)

Students must meet two goals.

- o. Examine critically philosophical and other theoretical issues concerning the nature of reality, human experience, knowledge, value, and/or cultural production. [AHo]
- p. Analyze arts and/or literatures in themselves and in relation to specific histories, values, languages, cultures, and technologies. [AHp]
- q. Understand the nature of human languages and their speakers. [AHq]
- r. Engage critically in the process of creative expression. [Ahr]

C. COGNITIVE SKILLS AND PROCESSES

1. Writing and Communication

Current:

Writing and Communication [WC; WCR; WCD] (9 credits)

Students must meet 4 goals - 01:355:101 [WC]; one WCR (s-2); and one WCD (t)

- (s-1) Communicate complex ideas effectively, in standard written English, to a general audience.
- (s-2) Respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision. [WCR]
- t. Communicate effectively in modes appropriate to a discipline or area of inquiry. [WCD]
- u. Evaluate and critically assess sources and use the conventions of attribution and citation correctly.
- v. Analyze and synthesize information and ideas from multiple sources to generate new insights.

Proposed:

Writing and Communication [WCR; WCD] (9 credits)

Students meet WCR in 01:355:101. Students must take two additional courses that include instruction on writing and communication, one that includes revision = WCR and one that involves communication in the discipline = WCD.

WCR. Communicate complex ideas effectively, in standard written English, to a general audience, and respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision.

WCD. Communicate effectively in modes appropriate to a discipline or area of inquiry; evaluate and critically assess sources and use the conventions of attribution and citation correctly; and analyze and synthesize information and ideas from multiple sources to generate new insights.

Justification:

The Writing and Communication goals create the most confusion for faculty. The current version of this section contains five learning goals, and courses are required to be certified for at least three of these goals. Many faculty complain that the five goals have significant overlap and that it is difficult to assess these goals separately in reading students' work.

The proposal is to make the faculty-facing version of the goals line up with the student-facing version. Students need to take courses that meet writing with revision – **WCR** – and writing in the discipline –

WCD. The CRC is proposing that faculty use the same two, more broadly defined, goals to develop courses and evaluate student learning outcomes.

2. Quantitative and Formal Reasoning

Current and Proposed: (No changes proposed for these goals.)

Quantitative and Formal Reasoning [QQ; QR] (6 credits)

Students must meet two goals.

w. Formulate, evaluate, and communicate conclusions and inferences from quantitative information.

[QQ]

(includes various quantitative methods courses as well as 640 courses)

x. Apply effective and efficient mathematical or other formal processes to reason and to solve problems. **[QR]**

(includes 640 courses and formal reasoning courses)

3. Information Technology and Research

Current:

Information Technology and Research [ITR] (3 credits or equivalent)

Students must meet one goal.

y. Employ current technologies to access information, to conduct research, and to communicate findings.

z. Analyze and critically assess information from traditional and emergent technologies.

aa. Understand the principles that underlie information systems.

Proposed:

Information Technology and Research [ITR] (3 credits or equivalent)

Students must meet one goal.

y. Employ current technologies to access and evaluate information, to conduct research, and to communicate findings.

aa. Understand the principles that underlie information systems.

Justification:

The CRC believes that learning goals **y** and **z** have significant overlap. In particular, the CRC believes that **y** implies **z**; in order to conduct research, a student must be able to analyze and critically assess information from a variety of sources. Therefore, the CRC is recommending that goal **z** be subsumed into goal **y**. Most courses currently certified for goal **z** are already certified for goal **y**; any course that is only certified for goal **z** will be automatically re-certified for goal **y**.

THE CORE CURRICULUM *(revised - as ratified by SAS Faculty, May 2017)*

Upon completion of the Core Curriculum **STUDENTS WILL BE ABLE TO:**

CONTEMPORARY CHALLENGES [CC] (6 credits)

Students must take two degree credit-bearing courses that meet one or more of these goals.

- a. Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on contemporary issues.
- b. Analyze a contemporary global issue from a multidisciplinary perspective.
- c. Analyze the relationship that science and technology have to a contemporary social issue.
- d. Analyze contemporary issues of social justice.

AREAS OF INQUIRY

Natural Sciences [NS] (6 credits)

Students must take two degree credit-bearing courses that meet one or both of these goals.

- e. Understand and apply basic principles and concepts in the physical or biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

Historical and Social Analysis [HST; SCL] (6 credits)

*Students must take two degree credit-bearing courses and meet **both HST and SCL**, as follows:*

- **Historical Analysis [HST] (3 credits)**

Students must take one degree credit-bearing course that meets one or both of these goals (k and/or l).

- k. Explain the development of some aspect of a society or culture over time.
- l. Employ historical reasoning to study human endeavors, using appropriate assumptions, methods, evidence, and arguments.

- **Social Analysis [SCL] (3 credits)**

Students must take one additional degree credit-bearing course that meets one or both of these goals (m and/or n).

- m. Understand different theories about human culture, social identity, economic entities, political systems, and other forms of social organization.
- n. Employ tools of social scientific reasoning to study particular questions or situations, using appropriate assumptions, methods, evidence, and arguments.

Arts and the Humanities [AH] (6 credits)

Students must take two degree credit-bearing courses and meet at least two of these goals.

- o. Examine critically philosophical and other theoretical issues concerning the nature of reality, human experience, knowledge, value, and/or cultural production. [AHo]
- p. Analyze arts and/or literatures in themselves and in relation to specific histories, values, languages, cultures, and technologies. [AHp]
- q. Understand the nature of human languages and their speakers. [AHq]
- r. Engage critically in the process of creative expression. [AHR]

COGNITIVE SKILLS AND PROCESSES

Writing and Communication [WCR; WCD] (9 credits)

*Students must take three degree credit-bearing courses, and meet both **WCR** and **WCD** as follows:*

- *All students must take 01:355:101 or its equivalent.*
- *Students must take one additional credit-bearing course focused on revision that meets this goal:*
 - s. Communicate complex ideas effectively, in standard written English, to a general audience, and respond effectively to editorial feedback from peers, instructors, &/or supervisors through successive drafts & revision. [WCR]
- *Students must also take one additional credit-bearing course focused on writing in a specific discipline that meets this goal:*
 - t. Communicate effectively in modes appropriate to a discipline or area of inquiry; evaluate and critically assess sources and use the conventions of attribution and citation correctly; and analyze and synthesize information and ideas from multiple sources to generate new insights. [WCD]

Quantitative and Formal Reasoning [QQ; QR] (6 credits)

Students must take two degree credit-bearing courses and meet both of these goals.

- w. Formulate, evaluate, and communicate conclusions and inferences from quantitative information. *(includes various quantitative methods courses as well as 640 courses)* [QQ]
- x. Apply effective and efficient mathematical or other formal processes to reason and to solve problems. *(includes 640 courses and formal reasoning courses)* [QR]

Information Technology and Research [ITR] (3 credits or equivalent)

Students must take one degree credit-bearing course that meets one or both of these goals.

- y. Employ current technologies to access and evaluate information, to conduct research, and to communicate findings.
- aa. Understand the principles that underlie information systems.