## IMPLEMENTING THE NEW CURRICULUM REVIEW COMMITTEE REVISIONS

In April and May of 2009, the students and faculty of Arts & Sciences approved the proposals outlined in the final report of the New Curriculum Review Committee (NCRC). One of the stipulations of that report was the creation of a Curriculum Implementation Committee (CIC), both in order to address a number of unresolved questions and concerns related to the revised curriculum as well as to consider a range of logistical and technical changes entailed by its implementation. The CIC, which consists of 17 representatives of the faculty of Arts & Science, the College Office, the Office of Student Records, and the student body, was constituted in early November 2009 and met regularly during the course of the academic year (a list of members is included as Appendix A of this packet). What follows are our recommendations and guidelines for implementing the NCRC report.

## I. AREA/CORE SKILLS DESIGNATIONS

The CIC recommends that the two-letter area designations for the distribution areas be changed to the following three-letter designations:

(HUM) **Humanities**

(SSC) **Social Sciences**

(NSM) **Natural Sciences and Mathematics**

(LCD) **Linguistic and Cultural Diversity**

These new designations more accurately describe the fields covered by the distribution areas. In addition, the new designations will help to mark the introduction of the new curriculum on official university documents.

In addition, in order to make clear the distinction between distribution areas and core skills, the CIC also recommends creating a consistent set of two-letter designations for each of the core-skill areas as follows:

(WS) **Writing Skills**

(WI) **Writing Intensive**

(AN) **Applied Numeracy**

(SD) **Social Differentiation**

We will make use of these designations in the recommendations that follow.

ARTS AND SCIENCES CURRICULUM 2012

## Overview of Degree Requirements

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### Distribution Requirements

To achieve breadth in their studies, students will take at least 9 units of course work in each of four areas.

| | |
|---|---|
| Natural Sciences and Mathematics (NSM) | 9 units |
| Social Sciences (SSC) | 9 units |
| Humanities (HUM) | 9 units |
| Linguistic and Cultural Diversity (LCD) | 9-12 units* |

* Three sequenced courses of at least three units each in a single foreign language, otherwise, four courses of at least 3 units each.

### Core Skills

| | |
|---|---|
| One Writing Skills (WS) course in first year | 3 units |
| One Writing Intensive (WI) course | 3 units |
| One Applied Numeracy (AN) course | 3 units |
| One Social Differentiation (SD) course | 3 units |

### Integrated Learning

Students will complete a minimum of three Integrated Learning Experiences (ILE's) during the course of their studies. One of these experiences must be based in a different distribution area than that of the primary major. Students can complete ILE's in a variety of different ways:

• Primary Majors
• Second Majors
• Minors
• Multi-course Freshman Programs
• Special, integrative study abroad programs
• "Integrated Inquiries" (special sets of linked courses, to be designated "IQs")

**Note:** Students who complete a non-major/minor IQ (e.g., a freshman program) that is a component of their major/minor may not count these as two separate IQs. That is to say, students may not double-count.

## II. GENERAL AIMS ADVOCATED IN THE NCRC REPORT

In the course of its review, the NCRC concentrated on three major components of the curriculum: 1) the cluster system; 2) core skill and area requirements; and 3) small-group experiences of several kinds. In each case they presented both a number of general conclusions and a series of more specific proposals. While we will address each of the specific proposals in turn, we think it is important to reiterate a few general aims at the outset, because they have served as guiding principles in our discussion of the implementation process, and because we took recourse to them in cases of ambiguity. The NCRC report, as we interpret it, stresses the following:

• The current cluster system is "inadequate," "unwieldy," and to a certain degree, "unnecessary." The Integrated Learning Model (ILM) with which it is to be replaced aims to shift the emphasis for integrated experiences onto majors, minors, and special programs and to diminish the importance of clusters, thereby relaxing their grip on the curriculum

• The dual structure of the new Language and Cultural Diversity requirement (LCD) was developed specifically in order to encourage enrollment in foreign language courses, without, however, creating a situation in which fulfilling this requirement with non-language LCD courses comes to be viewed as an "inferior" option for students.

• Courses that carry new Applied Numeracy (AN) designation should emphasize real-world applications of numerical relationships rather than simply involving quantitative analysis. The point of establishing this new category was not merely to remove from the old QA category certain courses that do not fulfill this aim, but also to encourage the development of new courses, primarily at the 100 and 200 levels, that will have particular appeal for non-science and math majors.

• Small-group experiences have been become an integral and very successful component of our undergraduate curriculum. Arts & Sciences needs to work to make such opportunities available to as many students as possible as well as to find ways to make the administration of these opportunities more streamlined and more effective.

• We should provide incentives to students wishing to study abroad, primarily by allowing them to fulfill more distribution area requirements than is currently the case.

• The NCRC revisions present the university with a unique opportunity to think about how it evaluates the success with which it is achieving its mission of providing a broad-based liberal arts education. The CIC has decided to take advantage of this opportunity to recommend some specific intiatives that will allow us to assess more accurately whether we are in fact achieving the goals outlined in the NCRC report. The university is already engaged in developing and/or fine-tuning assessment plans in a variety of areas and on a variety of levels, and for this reason we have decided to limit our recommendations to two areas that received special attention in the NCRC report: 1) distribution requirements and 2) core skills. Each of these will be addressed under the heading of "Assessment Considerations" in the relevant section of this document.

### III. FOLLOW-UP CURRICULUM REVIEW

The CIC has made every effort to consider the potential unintended consequences of changes to the curriculum. However, because the impact of these changes is impossible to predict in some cases due to the number of variables involved, it is crucial that a follow-up committee be convened after a period of three years to review:

**a)** whether the agreed upon changes have been implemented as planned

**b)** whether this implementation has had the intended impact on the curriculum (e.g. fewer clusters, better administration of small group experiences, sufficient numbers of AN courses, etc.)

**c)** whether any unforeseen negative consequences need to be addressed

## IV. SPECIFIC REFORMS OUTLINED IN THE NCRC REPORT

## A. REDUCING THE NUMBER OF CLUSTERS

1. Interpretation of the NCRC Report

On the basis of extensive discussion and numerous meetings with faculty, administrators and students, the NCRC ascertained that the cluster system is a source of deep dissatisfaction. The system is described in the report as 1) inadequate; 2) unwieldy; 3) to some extent unnecessary; and 4) too demanding. As a consequence, the NCRC report advocates replacing the cluster system with an *Integrated Learning Model* (ILM).

It is important to recognize that the new ILM, which was accepted by the faculty in the vote that took place on May 1, 2009, is understood as an *alternative to the cluster system*, and that the general impetus behind this alternative is to reduce the significance of clusters and their grip on the curriculum. The document expressly casts the ILM *in opposition to a rehabilitation of the cluster system*. It also implies that the residual clusters that will remain after implementation represent the least desirable of the several means available to students to complete the integrated learning requirements. The document also suggests that the curriculum might evolve in the future in the direction of "further reductions in the coherence requirement and corollary improvements in majors and programs*,"* a suggestion that implies the possibility of additional reductions in the number of clusters.  One should also note, however, that although the NCRC document generally seeks to reduce the significance of clusters, it did intend those clusters that survive to be improved in a variety of ways: stronger connections across courses, offered with greater regularity, better oversight.

With these aims in mind, the NCRC makes the following suggestions for reducing the number of clusters and strengthening those that remain:

- Remaining clusters should include only "horizontally-linked" courses.  These are defined as courses that are either multi-disciplinary or cross-track within multi-dimensional disciplines (e.g. physical and cultural anthropology)
- Only 2 courses constitute a cluster, but at least 4 courses must be available from which to choose
- Introductory courses are to be included in every cluster
- Every course which is *required* to complete a cluster must be offered every year (not every cluster must have required courses)
- Narrowly defined clusters should be recast in broader terms
- Clusters that have not been selected by a student in three years should be discontinued
- The set of clusters will be revised only once per year

2. Proposed Implementation Strategy

The CIC recommends the following procedure for reducing the number of clusters and strengthening those that remain:

### a) Phase 1

**i)** The CIC has identified current clusters that meet the suggested parameters provided by the NCRC:
- Multi-disciplinary (may include clusters within a department that are cross-track)
- Include introductory courses

• Offer at least four courses to choose from
• Offer all *required* courses at least once per year. To this we would add that all other courses should be offered at least every two years
• Have been selected by a student in the past three years

This process has yielded approximately 50 residual clusters.

**ii)** These remaining clusters are being reviewed for areas of potential overlap that might allow them to be consolidated further and/or recast in more general terms. The CIC has decided to rename these residual clusters "Integrated Inquiries" (IQs). Part of this review involves ensuring that there is a fair distribution of clusters across the four areas (NSM, SSC, HUM, LCD) as well as participation from as many departments and programs as possible. The CIC will encourage underrepresented departments to propose new Integrated Inquiries and, where advisable, will make specific suggestions to this effect in the letter that will be sent out.

## b) Phase 2

**i)** The final list of proposed Integrated Inquiries will be sent to departments and programs for review. The list will be prefaced by a detailed explanation of the role of these linked courses in the new ILM-based curriculum. Departments should understand that majors, second majors, minors, and FOCUS programs will continue to counts as ILEs. Because the number of ILEs required by students has been reduced from four to three, however, and because the majority of our students complete more than one program (e.g., two majors, a major and minor, etc.), the role of clusters (now IQs) in the curriculum will be greatly reduced. Based on a preliminary review of data on recent graduates, we have established that in 2009, roughly 68% of 885 graduating students would have completed at least two of three ILEs through majors and minors alone. This number does not include students who participated in freshman programs, so in fact the real number is even higher. In short, one can say that in the overwhelming majority of cases, students will need at most one Integrated Inquiry to complete their ILE requirements.

It is thus clear that reducing the number of clusters in which each department or program is involved will have no negative impact on the status of that department's courses vis-à-vis those of other departments

We will ask departments and programs to review the list and make suggestions and comments, which might include, for example, suggestions for further deletions or additions of courses to particular clusters, or proposals for alternate clusters to replace the ones suggested. The deadline for responses to the list will be **Friday, January 21, 2011.**

## c) Phase 3

**i)** Once the responses of departments and programs to the list have been collected, a Residual Cluster Review Committee (RCRC), constituted of members of the CIC and the Curriculum Committee, will meet to assess the results and determine what additional action is necessary.

**ii)** As was the case with clusters in the past, proposals for the creation of new Integrated Inquiries must be submitted to the Curriculum Committee for approval. Approval will be determined according to whether or not these proposals meet the criteria outlined above. The CIC will work together with the Curriculum Committee to develop applications forms. Students will be able to propose their own Integrated Inquiries, which will be evaluated by the Curriculum Committee to see whether they meet the criteria outlined in the NCRC report.

**iii)** With regard to the coordination and oversight of the Integrated Inquiries, the NCRC report makes a few additional recommendations: (1) students will be notified every semester by email about the availability of courses in their clusters; (2) a cluster administrator should be appointed in every department to work with cluster conveners; (3) every faculty convener must report to the Curriculum Committee on the status of the cluster every year.

After much deliberation, the CIC has come to the conclusion that the implementation of these specific requirements is inadvisable. In the case of (1), students already receive adequate information about cluster availability and additional emails would create unnecessary redundancies. With regard to (2) and (3), the CIC feels that the benefits do not justify the costs of the administrative burden, particularly for the Curriculum Committee. In order to be certain that the system of Integrated Inquiries is operating as planned, the Curriculum Committee will periodically review information on enrollments and frequency with which courses are offered. This information can be obtained through various reports generated by the College.

**B. INTRODUCING NEW AREA REQUIREMENTS: LCD & HUM**

1. Interpretation of NCRC Report

One of the most significant changes to the curriculum that will result from the implementation of the NCRC report involves the restructuring and re-naming of the current distributions areas (NS, SS, LA, TH). To be more specific, the NCRC report calls for the elimination of the LA area as well as the CD special attribute, with courses previously included in those categories to be combined into a new LCD (Linguistic and Cultural Diversity) area. In addition, the existing TH category is to be eliminated and replaced with HUM (Humanities). These changes raise questions about how, practically speaking, decisions are to be made regarding the migration of existing courses into these new categories. In many cases, the re-assignment of distribution area designations will be straightforward, but there are also some ambiguities that need to be addressed.

Along with this renaming and redistribution of courses, the report also specifies new unit requirements in each of the four areas, and these unit requirements have been adjusted in such a way as to provide incentives for students to study foreign languages. According to the document:

Unit requirements should be revised as follows:

• HUM, NSM, & SSC: 9 units each

• LCD: 3 courses (of at least 3 units each) in the same foreign language; 12 units otherwise

2. Proposed Implementation Strategy

**a) Course Migration:** The CIC recommends that courses be reassigned on the basis of a two-stage process. First, the College will generate a list of recommended new area designations according to the following formula:

| | |
|---|---|
| Foreign Language Courses | => LCD |
| LA w/CD | => LCD |
| LA w/o CD* | => HUM |
| TH w/o CD | => HUM |
| TH w/CD | => HUM and LCD (students must choose) |
| SS w/CD | => SSC and LCD (students must choose) |

*Logic courses and Linguistics courses constitute special cases. The CIC will request recommendations for area designations from the relevant departments. These recommendations will then be reviewed by the Curriculum Committee.

In the case of majors and minors, all of which currently carry area designations, the above formula can be applied to determine the appropriate designations under the new system. In the past, study abroad programs did not carry designations, because they could not be used to fulfill cluster requirements. Because a limited number of such programs will now fulfill the requirements for an ILE (see section III.E. of this document), designations will need to be assigned to these programs. The CIC will solicit recommendations from Overseas Programs as well as the relevant departments. These recommendations will be presented to the Curriculum Committee for review and approval.

Recommendations for course area designations will then be sent to the relevant departments, which will have an opportunity to request changes in specific cases. Because there are currently some instances where course designations do not seem to correspond to course content (e.g. courses on non-Anglo-American topics without a CD designation),  it is the hope of the CIC that departments will use this opportunity to review their courses to ensure that 1) the designations are in fact consistent with the content of these courses and 2) the designations are consistently applied across the range of courses offered by the department. Proposed revisions to the recommendations of the CIC will be reviewed by the CIC with assistance of the Curriculum Committee. **The deadline for receipt of these proposed revisions will be Friday, January 21, 2011.**

Decisions about area designations may lead to some areas of uncertainty, both during the initial migration of courses and in the case of new courses introduced in the future. In order to achieve consistency, the CIC recommends the use of existing definitions of the four areas from the Discovery Curriculum (LA, TH, NS, SS) supplemented, in the case of LCD, with the description of the CD special attribute. We have prepared the following template to assist in this regard:

**Humanities** (HUM)
Analytical, critical, creative, and historical study of the human condition, including courses in history, literature, the visual and performing arts, philosophy, and religion.

**Social Sciences** (SSC)
Empirical and theoretical study of human behavior, including courses in anthropology, economics, education, political science, and psychology.

**Natural Sciences and Mathematics** (NSM)
Empirical and theoretical study of the universe and formal systems, including courses in biology, chemistry, earth and planetary sciences, mathematics, and physics, and certain courses in psychology, environmental studies, and anthropology.

**Linguistic and Cultural Diversity** (LCD)
Study of languages and cultures in societies outside of Britain and English-speaking North America. These courses should encourage serious analytic engagement with the world from the perspective of such societies and encourage students to explore issues of human diversity within such cultures.

> **Note:** The above definition reflects current university policy for assigning a CD designation. Some concern was expressed among members of the CIC, howevier, that the above description is too restrictive. It fails to acknowledge that issues of linguistic and cultural diversity play a crucial role within British and English-speaking North America. Intuitively, it seems reasonable to assert that courses addressing Irish culture within Britain, or Native American or Latino culture in the United States, have just as much claim to the LCD designation as a course on the French or German language.
>
> In order to address this issue, the CIC recommends that the Curriculum Committee, which has in the past had responsibility for approving courses carrying the CD designation, undertake a review of whether the definition should be expanded further and determine whether it makes sense to propose changes along these lines to the full faculty for a vote.

After a period of three years, the procedure for assigning distribution areas to new courses needs to be assessed to determine whether the definitions are providing adequate guidance to faculty, staff, and the members of the Curriculum Committee.

**b) Unit Requirements:** The new LCD requirement offers students the option of taking 3 sequenced foreign language courses for a total of at least nine units. In order to eliminate confusion and the possible misuse of this option, the CIC would like to draw particular attention to the following additional stipulations, included in the footnotes to the NCRC document:

• Students cannot test out of this requirement through language exams or AP credit

• For students who begin a foreign language at the introductory level, language courses must be sequenced, whereas for students who begin at the 3$^{rd}$ semester or above, the sequencing requirement may be made less strict

• Students who study two semesters of a language and then switch must take two additional courses with an LCD designation (whether language courses or not) in order to complete this requirement

• Heritage speakers may fulfill this requirement in their home language as long as they start at the intermediate level or above and as long as the courses advance their understanding of writing in that language or of cultures other than their own in which that language is spoken.

The CIC makes the following additional recommendations to address remaining ambiguities:

**i) Placement:**
One possible negative consequence of the 3-course language option is the inappropriate enrollment in introductory courses by students who have already taken a language in high school or by so-called heritage speakers. Our discussions with various foreign language programs and departments leads us to believe that the number of students who will seek to "game the system" in this way will be quite small, especially since lower-division language courses tend to meet five days a week and thus demand a significantly greater time commitment than courses at the 300-level and above. Nonetheless, this new option does make appropriate placement of incoming students all the more important; because some students will only be taking three courses, it is crucial that they are deriving the maximum benefit from those courses. Some programs may want to institute additional mechanisms to ensure that students are not enrolling in courses below their actual level of expertise.

The case of heritage students represents a unique challenge in this regard. According to the NCRC report, these students should in principle be able to complete the LCD requirement through three sequenced courses, assuming that "the courses advance their understanding of writing in that language or of cultures other than their own in which the language is spoken."

In order to address this question of heritage speakers in particular as well as the more general issues related to placement discussed above, the CIC asks each of the departments that teaches foreign languages to compose a brief document explaining the mechanisms they have in place to ensure appropriate placement as well as a brief assessment plan outlining how they intend to evaluate the effectiveness of these mechanisms in the future. **The deadline for receipt of this document will be Friday, January 21, 2011.**

We recognize that there is no standard, cross-disciplinary definition of what constitutes a heritage speaker, and we think it should be left to departments to make that determination. The key task is to ensure that the special needs of these students are being met and that they, too, are maximizing their learning should they choose the sequenced-course option.

As a possible model of how to approach these issues, we have included information from the Spanish program in Appendix C. The Spanish program requires all students to take the placement exam prior to enrolling in any language course. In addition, students are never allowed to enroll in courses below the level into which they place. In cases where a student's test results place him/her between levels, appropriate placement is determined on the basis of a personal interview with the placement supervisor. Finally, students who have taken four years of high school Spanish are not allowed to enroll in Spanish 101D, regardless of their score on the exam.

## ii) Sequencing:

The CIC assumes that the sequencing of language courses will be fairly easy to determine and oversee. In the great majority of cases, we can assume that any 3 courses of at least 3 units in a single foreign language will constitute a legitimate sequence. If a student begins with Spanish 101D, for example, they are more or less locked into taking 102D and 201D. There are, however, some courses that will need to be excluded from this option: courses taught in English for example, or independent study courses, or a conversation course that is deemed to have a "lateral" relationship to other courses rather than a "sequential" relationship. In order to address this issue, departments will be asked to identify which courses DO NOT qualify for use as part of a sequence. Once these courses have been identified, our impression is that ANY remaining combination of sequence-eligible courses will be acceptable. At the 100- and 200-levels, the sequencing is built into the curriculum, and at the 300- and 400-levels, as the NCRC report makes clear, the idea of sequencing becomes less relevant. Departments will also need to provide information on whether new courses introduced into the curriculum will be excluded from the sequenced-course option.

## iii) Switching from the 3-course to the 4-course option:

For students who take one or two language courses and then decide to switch languages or shift to non-language LCD courses, the language of the report is somewhat ambiguous, since it mentions only unit totals. For example, if a student took German 101 and 102 and then took one non-language LCD course, this student would have completed 12 units, thus meeting the unit requirement for the area. Allowing students to complete the requirement in this way, however, was clearly not the intent of the NCRC. To avoid any confusion, the CIC recommends that the LCD requirement be broken down into 2 options and that the language be changed to indicate number of courses rather than total units:

*Option 1*: 3 sequenced courses of at least 3 units each in the same foreign language

 *Option 2*: 4 courses with the LCD designation of a least 3 units each

While the new LCD requirements are clearly designed to encourage the study of foreign language, the CIC recommends that advisors are careful to present these two options as equally valid avenues for the completion of the requirement, rather than in terms of a "preferred," and a "fallback" option.

## iv) LCD and Integrated Learning:

The NCRC report does not explicitly state whether successful completion of the foreign-language option for fulfilling the new LCD requirements will also constitute completion of one of the student's three required integrated learning experiences (ILE).

The CIC is of the opinion that opportunities to complete an ILE through foreign language coursework should be available. Each of the distribution areas (including *Option 2* within LCD) will offer a limited number of Integrated Inquiries, linked courses that can be used to complete

the ILE requirements, and it would create an asymmetry among the various distribution areas if this were not the case with *Option 1* within LCD. One the other hand, the CIC does not believe that mere completion of any 3 sequenced foreign language courses should *automatically* mean the ILE requirement has been fulfilled. Instead, foreign language departments and programs will follow the same procedure as other departments and programs, offering a small selection of Integrated Inquiries as a way to fulfill the ILE requirement. The CIC assumes many of these will include language course work.

3. Assessment Considerations

The reorganization of the distribution areas creates an opportunity for the university to develop more concrete goals regarding precisely what knowledge, skills, and abilities it thinks students should acquire as a result of taking a series of courses in a particular area (Natural Sciences and Mathematics, Linguistic and Cultural Diversity, Social Sciences, and Humanities). What is needed is a set of specific and well-defined learning outcomes that are also general enough to be appropriate to these broad categories of knowledge. In addition, the university also needs to develop a set of measurable criteria that can be used to evaluate whether we are achieving these outcomes. To this end, the CIC recommends the following: During the implementation year, members of the CIC's Assessment Subcommittee will meet with faculty representatives from each of the four distribution areas. The aim will be to formulate 3-5 specific learning outcomes for each of the areas as well as an assessment plan that outlines how we will measure our degree of success in producing these outcomes. Part of this process will include establishing guidelines for the evaluation of proposed new courses in each of the distribution areas. Of crucial importance in this endeavor is that our goals be formulated in such a way as to indicate not the kinds of knowledge one acquires in individual courses, but rather the combinatorial effects that result from taking a collection of courses in related fields of study.

## C. SMALL-GROUP EXPERIENCES: BUILDING ON OUR SUCCESSES

1. Interpretation of the NCRC Report

The NCRC report advocates expansion of "small-group experiences" and recognizes two categories: (1) free-standing courses or combinations of courses such as freshman seminars and multi-course freshman programs that have small class sizes, and (2) small-group components in large lecture courses. It lays particular emphasis on "FOCUS-type programs" (first-year programs, which can last longer than one year, and FOCUS programs, which typically combine at least two courses) and freshman seminars that feature what the report calls "enriched experiences." A list of current programs is attached to this document as Appendix B.

Because small-group experiences have provided very successful learning environments, the NCRC report recommends doubling our current offerings. This recommendation, however, needs to be placed against some sobering numbers. In 2009-10, for example, 604 out of 915 students were enrolled in special first-year programs (including freshmen seminars and "FOCUS-type experiences"). This enrollment was the result of intensive promotional efforts by four-year advisors in the college. But several of these classes did not enroll well. Out of 29 freshman seminars in 2009-10, 5 had to be cancelled because of zero enrolment, and 6 enrolled fewer than 10 students. In fall 2009, all 13 FOCUS programs together could have absorbed 25 more students. In the 6 freshman programs, 48 places remained unfilled.

In light of these numbers, the CIC believes that the number of small-group experiences offered in this area should only be increased in response to an increase in demand. For the immediate future, rather than seeking to increase the absolute number of offerings, we suggest directing our efforts toward another of the NCRC's recommendations: the more effective management of existing offerings and a relative increase in offerings from underrepresented areas, especially in the social sciences. Accordingly, our first set of recommendations "**a)**" addresses several possible improvements in the administration of small-group offerings.

The only exception to this general rule pertains to the introduction of small-group elements in large first- and second-year classes, which offers an exciting possibility to expand the small-group experience to students who might not otherwise be able to take advantage of it. Our second set of recommendations "**b)**" addresses this possibility. The NCRC report recognizes that the expansion of small-group teaching comes at a price and can only happen with significant financial support from the College. Several of our recommendations address this issue.

The NRCR report also recommends the expansion of "enriched experiences." The CIC believes this is a feasible goal and has several recommendations for achieving this goal in part **"c)"**. We propose that this effort be focused primarily on freshman seminars and that the aim be to upgrade the experience rather than to increase the number of freshman seminars.


2. Implementation Strategy

**Definitions of "Small Group Experiences" and "Enriched Experiences"**
The report does not provide a succinct definition of a "small-group experience." As a rule of thumb, the CIC recommends that any course that is to be considered a small-group experience be capped at 20 students.

The CIC also proposes the following definition of an "enriched experience": An enriched small-group experience has at least one of the following components: (1) substantive co-curricular activities linked to the seminar, (2) additional coursework in subsequent semesters, or (3) independent studies in subsequent semesters coupled with research opportunities (in cooperation with the Office of Undergraduate Research).

**a) Improving Administration of Programs**

The current "FOCUS-type programs" need to be monitored more effectively. The CIC recommends setting two goals: to increase the diversity of these programs without increasing the number of programs and to increase the overall number of students who participate in these programs. Once these goals are achieved, expanding the number of programs should be considered.

To achieve increased variety, the CIC proposes that the College dean in charge of these programs consult with the Curriculum Committee at least twice a year to provide a status update on current offerings and on which departments and programs in Arts & Sciences are involved in these programs. It may make sense to fold this update into a more broadly conceived "state of the curriculum"-type report. These presentations will allow the College to identify more effectively those areas that are are attracting the most students as well as those that are underrepresented.

Furthermore, departments and faculty, particularly in the underrepresented areas of the social and natural sciences, should be given incentives to develop new programs. Following up on suggestions made in the NCRC report, the CIC proposes the following incentives:

**i)** Grants to faculty for developing new FOCUS programs and freshman programs (similar to Kemper grants).

**ii)** Teaching credits for faculty who participate in successful programs. We propose that a FOCUS program or freshman program in which a faculty member has successfully taught three times over a period of five years or less would entitle the faculty member to one course reduction in the following year. Faculty members who teach in more than one program may only count one course a year toward the teaching credit.

**iii)** Funding for departments to hire replacement faculty. We propose that departments in which at least two faculty members have in a single year successfully taught FOCUS programs or freshman programs ought to receive funding to hire one replacement teacher for the next time a faculty member teaches in one of these programs and seminars. In 2009-10, 33 faculty members taught FOCUS programs or freshman programs. Considering current practice, it is likely that 3 or 4 departments would qualify for this funding per year. At a rate of $6,500 per adjunct (a rough average on campus), this incentive would cost between $19,500 and $26,000 a year.

The CIC recognizes that numerous mechanisms are already in place to maximize student participation in these programs. Generating significant increases in numbers will be a challenge, but a better variety in the types of courses and programs offered may increase enrollments. Another possible source of new demand would be an increased participation by students from other schools (i.e. non-A&S students). While it is true that such groups are already targeted in our marketing efforts, it may be possible to develop new strategies for attracting these students.

**b) Adding Small-Group Experiences to Large Lecture Classes**

In order to facilitate the development of small-group elements in large lecture classes, the CIC recommends the following action plan:

**i)** The CIC will develop a list of large introductory courses that would be likely candidates for such small-group elements (e.g., Western Civilization, Human Evolution, and American Politics).

**ii)** The CIC will survey the departments and programs that offer these courses in order to determine their interest in developing small-group elements. One valuable model for developing such courses is the very successful program initiated in the psychology department in conjunction with Psych 100B, "Intro to Psychology." Students enrolled in this lecture course have the option of taking Psych 102, "Freshman Seminar: Intro to Psychology," which allows them to "explore in greater depth several of the ideas and concepts in contemporary psychology." Of central importance is the idea that the small-group element is not merely a discussion section. It should focus on an in-depth, seminar-type treatment of select topics dealt with in the main course. The aim is to provide an enriched educational experience rather than review or exam preparation. These "satellite seminars" will be conceived with first-year undergraduates in mind and particularly groups such as pre-med students who might not otherwise have an opportunity for a small-group experience in their first year. First-year students will be given preference with regard to enrollment in these seminars, though enrollment will not be limited to such students.

**iii)** The CIC, in conjunction with the Curriculum Committee, will compose a sheet of guidelines for departments and programs interested in pursuing these opportunities. Interested departments or programs will submit a formal course proposal to the Curriculum Committee for approval. The proposal will include detailed information on the structure of the small-group element, how it will be integrated into the larger lecture course, and the resources that will be necessary to realize the plan. The College needs to provide funding for the hiring and training of master TAs or post-docs who could teach the small-group components. While this represents an additional expense, such teaching opportunities also offer a valuable way for our very best graduate students to gain meaningful teaching experience that will increase their skills and their marketability. Such opportunities could also be helpful in attracting talented graduate students to the university. The CIC is of the opinion that such seminars could represent an important step toward the fulfillment of the aims outlined by the Graduate School of Arts & Sciences in the "Graduate School-Wide Teaching Requirement" document.

**iv)** The CIC recommends an initial goal of developing at least three of these satellite seminars, each of which would run for up to three years. After three years, the program should be re-evaluated to determine its success and to determine whether other large courses might benefit from incorporating similar elements. The evaluation should consider the popularity of the small-group element as well as general student evaluations and student responses to specific questions included on the evaluation form.


**c) Expanding Enriched Experiences in Freshman Seminars**

The expansion of enriched experiences within already existing small-group courses should initially focus on freshman seminars taught by regular faculty. With regard to these forms of enrichment, the CIC makes the following recommendations:

**i)** Department chairs should be informed about the value of freshman seminars. Representatives from the College and the Curriculum Committee ought to visit departments to introduce this initiative at faculty meetings. We are particularly interested in reaching out to faculty in the

natural and social sciences, since these areas are underrepresented in the roster of current offerings.

**ii)** Given that we cannot fully enroll our existing freshman seminars, we do not recommend increasing the number of seminars offered. Instead, we recommend working to increase the number of students who enroll in such seminars through more effective marketing and possibly a change in the mix of seminars offered.

**iii)** Co-curricular activities such as trips to the theater, film screenings, special lectures, and museum visits already constitute a valuable component of some freshman seminars. It is crucial that funding continues to be available for faculty who want to involve students in such experiences.

**iv)** Rather than establish formal linkages between freshman seminars and more advanced courses, independent studies, or research projects, the CIC recommends that these opportunities be developed on a case-by-case basis through consultation with the instructors of the seminars. In some instances, the enrichment may result from enrolling in a course that builds upon the content of the seminar, while in other cases it may involve an independent study course or independent research project, conducted either during the semester or during the summer. To facilitate such informal linkages and to increase general awareness of the existence and value of this opportunity, we recommend that all faculty members have access to a handbook, to be developed by staff in the College Office in conjunction with the CIC. This handbook will include information on:

- the aims of freshman seminars and examples of existing offerings,
- the availability of funding for co-curricular activities,
- ways of encouraging students to enroll in follow-up courses subsequent to the seminar as well as examples the kinds of sequences that might be of interest to students,
- the resources and opportunities provided by the Office of Undergraduate Research (especially summer research money).

**v)** Incentives: we believe that many of these enrichment elements can be easily implemented and thus do not require special incentives. The one exception is follow-up independent study experiences. In order to encourage instructors to take on this additional responsibility, we recommend that financial resources be made available to pay these instructors a small stipend. The Interdisciplinary Project in the Humanities can serve as a model in this regard.

**D. CORE SKILLS: QUANTITATIVE ANALYSIS (QA) BECOMES APPLIED NUMERACY (AN)**

1. Interpretation of the NCRC Report

The NCRC report states that skills taught in conjunction with the current QA courses are not being developed as appropriately or effectively as they might be. These courses would be more effective if they moved beyond pure mathematics to emphasize *applied numeracy,* which would include such critical life skills as a grasp of probability theory, a knowledge of statistics, an understanding of the notion of confirmation by evidence, and an awareness of the reliability of trend projections. Such skills are necessary for informed and responsible citizenship and individual choice.

The report calls for the creation of a new requirement that will be defined in terms of the acquisition of these skills. The NCRC report designates this new requirement NA (numerical applications). The CIC recommends use of the acronym "AN" (applied numeracy) rather than "NA."

The NCRC also adds two recommendations with regard to the completion of this requirement that bear repeating:

> **i)** Students may not place out of this requirement.
> **ii)** The requirement should be completed within the first six semesters; completion within the first four semesters is strongly encouraged. (Some common options at the 300-level, such as Psych 300 and Pol Sci 360, may prove harder for some students to complete in the first four semesters.)

2. Proposed Implementation Strategy

**a) Definition of the Revised Category of AN**

According to the NCRC, "The requirement should be defined in terms of an ability to use numbers and numerical analyses in connection with problems involving statistical analyses, judgments of probability, and evaluation of quantified evidential support." Courses do not need to address all three criteria in order to qualify as AN.

In our view, the NCRC definition is restrictive and places too much emphasis on statistics, despite the intention to offer students more options for fulfilling the requirement. The NCRC definition does not seem broad enough to include current or future courses in this category. In our view, the emphasis should instead be on applied numeracy. We recommend adding examples of courses to the definition of the requirement, as follows:

> **Definition:** Numeracy is an ability to use numbers and numerical analysis in connections with problems involving statistical analyses, judgments of probability, and evaluation of quantifiable evidential support. This includes courses using real-world applications of numerical relationships and courses that employ mathematical modeling of natural and social phenomena.
>
> Examples of desirable courses that might be used to fulfill this requirement, ideally at the 100- or 200-level, include:
>
> • A game theory course in economics or political science, perhaps a freshman seminar
> • A course on personal finance in mathematics or economics

&bull; A course in the history department on immigration history that employs a statistical methodology
&bull; A freshman seminar akin to *Gödel, Escher, Bach* (book by Douglas Hofstadter)
&bull; A biology course that deals with populations and extinctions in a quantitative fashion
&bull; An anthropology course that examines statistical evidence in instances drawn from case studies in the field of public health
&bull; A course on energy: how much we use, where it comes from, environmental costs, etc.
&bull; An applied math course in networks and networking from a statistical viewpoint
&bull; The history of baseball by the numbers, a chapter of US social history
&bull; "Numeracy 1": an across-the-board parallel to Writing 1 specifically designed to address this requirement and taught in small sections of 12 or so

### b) Minimum Grade Requirement

The CIC recommends that the minimum grade for satisfaction of the requirement (currently C+) be lowered to C–.

However, since a decision about minimum grade requirements for the AN category cannot be made separately from a consideration of similar requirements for other core skills courses, the CIC, together with the Writing 1 committee, will put together a comprehensive proposal for addressing minimum grade requirements in Writing 1, the AN course, and the Writing Intensive courses and will present this proposal to the Curriculum Committee.

### c) Migration of Current QA Courses to AN

Calculus and logic courses will be removed. The remaining QA courses, unless specifically removed by a department, will migrate to AN.

### d) Development of New AN Courses

With the removal of calculus and logic courses, the pool of QA/AN courses is reduced from 45 offerings to 31; of the remaining 31, 6 courses are taught at the 400/500 level. Hence, only 25 current QA courses will migrate to AN.

The NCRC report calls for more courses in applied mathematics and more courses developed for students not majoring in science or mathematics.  We propose adding new courses, primarily at the 100- and 200-level, so that the total number of AN offerings falls somewhere between 40 and 50. This should be a sustainable number of courses that will provide some variety of disciplines, subject matter, and methods for students to choose among.  We think a target of at least 5 and ideally 10 new AN courses is reasonable and sufficient to meet the needs of students at this time, and we recommend that efforts to encourage development of these courses proceed in a two-stage process:

**Phase 1**: The CIC will solicit course proposals from departments and programs. These proposals may be for new courses or for courses that are already being taught but did not previously have the QA designation.  Proposals will be evaluated by the Curriculum Committee to determine whether the proposed courses meet the goals laid out for the new requirement in the NCRC report. We may also gain courses in this category with the proposed new freshman seminars in math and sciences.

**Phase 2**: Should the voluntary solicitation and freshman seminars not generate an appropriate number of new AN courses, the CIC recommends the adoption of an incentive model similar to

the one suggested in the case of the small-group experiences. There may also be a need to provide incentives to departments, since in some cases it may prove difficult for departments to free up faculty to teach these courses, either because these faculty are already committed to teaching service courses or because they want to use any elective courses they teach to pursue their own research interests.

3. Assessment Considerations

**a) Applied Numeracy**

Under current policy, the university assesses the quantitative skills of students when they enter the university and again in their senior year. This assessment takes the form of a test, in which students are asked to write several paragraphs exhibiting quantitative skills on a topic that has recently been – and preferably is currently being – covered in the news. For example, the most recent topic was the massive increase in federal spending, and the one prior to that was the marketing of credit cards to all college students**.** This test is administered to a group of approximately 500 students, half of whom who are selected randomly from EComp 100 sections. The other half are all the seniors enrolled in the rhetoric courses Ecomp 311, 312, and 314.  This policy has been in place, with some variations, since 2000 and has provided valuable information regarding both the baseline skills of our students and the extent to which they improve over the course of their studies. The CIC does not foresee the need to make any major changes to this policy, but it does recommend that the General Education Assessment Committee review the new definition of "applied numeracy" and determine whether the test needs to be adapted to reflect new priorities. Mathematics will pilot a new numeracy assessment this coming spring, using the introductory statistics courses Math 2200, 3200, and Psych 300. It will then roll it out to calculus courses in Fall 2011, to pick up freshmen. This seems like an opportune time to think about how to integrate the new goals of applied numeracy.

**b) Writing Skills**

Although the CIC was not assigned the task of implementing changes to the writing program, the general review of the core skills undertaken in conjunction with its deliberations provides an opportunity to summarize current practices, which strike us as very well-conceived. Currently, student writing is assessed in both the freshman and the senior years on the basis of essays written in class. In the freshman year, these essays are written in Writing 1 in both the fall and spring semesters. A limited number of randomly selected essays are then used for the formal assessment. Freshman assessments are completed during the first week of the semester so as to best measure their skills prior to completing university course work.

The procedure for the seniors is similar. Essays are written by students enrolled in E-Comp 311 and 312. Unlike the freshman essays, these essays are graded by instructors and factored into student grades to ensure that the assignment is taken seriously.

In 2009, students were asked to write in response to a prompt distributed at the start of class. The prompt asked students to select from and interpret data related to college student credit card use. Students were instructed to use this data to write a persuasive piece in the form of either: 1) a speech or editorial, an open letter to the WU administration, a letter to the Federal Reserve chair, or a letter to a government official. 2009 was the last year in which the writing assessment incorporated a quantitative aspect (the use of numerical data). In the future, the quantitative and writing assessments will be conducted separately.

As with the current policy for the assessment of quantitative skills, the CIC sees no need for any major adjustments to this approach. Given the emphasis on writing across the curriculum, however, it does seem advisable to find a way to incorporate the students enrolled in Writing Intensive courses in other disciplines into our assessment of student writing skills.

**c) Social Differentiation**

There is currently no policy in place for assessment of the social differentiation core skill. The CIC recommends that the General Education Assessment Committment discuss the possibility of establishing some basic learning goals for this requirement as well as some strategies to determine whether they are being met: a quiz and the beginning and end of a course with the SD designation, for example.

**E. STUDY ABROAD**

1. Interpretation of the NCRC report

The NCRC report recommends that the College identify and approve a list of study abroad courses that students can use to satisfy A&S distribution requirements. Currently, students who study for a semester in any approved WashU study abroad program are allowed to count up to three units of coursework toward A&S distribution requirements.

2. Implementation Strategy

**a)** In keeping with the desire of the NCRC to encourage study abroad, the CIC recommends that the total number of units taken abroad that can be applied to A & S distribution requirements be increased to 6. In the case of students who study abroad for an entire year, the total will remain at 6 units, but students will have the possibility of submitting a special petition to increase the number of units that can be applied, up to a maximum of 9.

**b)** In addition, the CIC recommends that a limited number of pre-screened Washington University overseas programs, taught by WU faculty and designed to provide students with unique, integrative coursework, be allowed to fulfill one of a student's Integrated Learning Experiences. A preliminary list of suggested programs has been determined in consultation with Priscilla Stone and Amy Suelzer in the Office of Overseas Programs. All of the programs indicated below have WU instructors teaching all or some of the program's courses, significant WU engagement in the overall design of the curriculum, and strong relationships between the courses that comprise the program or, in the case of the semester programs indicated, components of the program. The programs are offered on a regular basis.

Semester programs with multiple courses taught by WU or WU-hired instructors and significant WU curricular oversight:
WU Program in Shanghai in affiliation with Fudan University (will begin in FL11)
WU Program in Chile (Spring semester only)
WU Program in Washington D.C.

Language and culture summer programs:
WU Summer Language Institute in France
WU French and African Studies Summer Program in Senegal
WU Summer in Kenya Program
WU Summer Language Institute in Spain

Thematic summer programs:
WU MADE in France (dance and performing arts)
WU France for the Pre-med in Nice
WU Pluralism, Politics and Religion in Paris
WU Shakespeare at the Globe Theatre Program
WU Village India Program

As is the case with other forms of integrated learning, final determination of ILE status for these programs will be the task of the Curriculum Committee, which will undertake a thorough review of each

in the course of the implementation year.

**F. ADMINISTRATION & TECHNOLOGY**

1. Interpretation of the NCRC report

The changes advocated by the NCRC Report will necessitate a thorough review and eventual overhaul of the technology that is used to support interaction with the curriculum.

2. Proposed Implementation Strategy

Curriculum-related technology and administration, which exist to help students explore the curriculum and to aid in planning and advising, will need to be revised.   Though it is not possible to address the full scope of the changes until the preliminary inquiries and tasks associated with implementation are completed, the committee can begin to identify areas where current process and technology do not meet the requirements of the new curriculum, one of these being the online planning tool.  The following report thus focuses largely on the planner.  Also provided is a preliminary catalog of the ways in which the University community currently uses and understands the curriculum. This catalog is intended to serve as a starting point for future discussions of additional administrative and technological adaptations that need to be made to accommodate the curricular changes.

The catalog of curriculum-related technology and administration falls roughly into three categories:  web applications, Student Information System (SIS) applications, and publications—both print and online:

 **a) Web Applications**

   **i) The online planner:** Student planner data drive various reporting functions in SISAdmin and in the suite of web applications: WebSTAC, WebFAC and WebAdvising.  The planner performs two key functions—facilitating student course selection (in conjunction with 4-year advisor) and facilitating degree auditing—and its successful revision will be an important aspect of implementation.  The CIC has identified the following necessary changes:

   Some changes are less substantive, and should require only minor programmatic revisions to the planner:
   - TH => HUM.  In terms of the planner, this is a simple renaming of the area and should not require major changes to the planner logic.  9 units are now required where before 8 would suffice.
   - SS => SSC. Area renaming, again, minimal changes
   - NS => NSM. Area renaming, again, minimal changes
   - SD. No changes required.
   - CD. The new curriculum eliminates a separate CD requirement.  This node will need to be removed from the planner.
   - QA  -> AN. Renaming. A change to minimum grade requirement is being considered.
   - WI .  No changes, currently.  The Writing Review Committee report has recommended changes to the writing requirements.  If approved, these will need to be incorporated into implementation design.  Change to minimum grade requirement is being considered.

- Writing 1. Renaming. The planner still refers to this as the EComp requirement. Change to minimum grade requirement is being considered.

In other areas the requirements of ILM diverge significantly from the current requirements, and will require equally significant updates to the planner. These areas are:

- LA + CD => LCD. 3 sequenced-language courses of at least 3 units each, otherwise 4 courses of at least 3 units with the LCD designation. We recommend that the courses used to fulfill the language sequence carry a special designation. The Planner will need to differentiate between the courses that fulfill a language sequence and those that do not. The Planner will also need to recognize what constitutes an approved language sequence as determined by the departments and programs per the NCRC report (see section B.2.b.ii.).
- Clusters => Integrated Learning Experiences. The change from 4 clusters/programs in 4 areas to 3 ILE's in 2 areas—one in an area other than that of the primary majors—will necessitate updates to the planner. ILE's include majors, minors, freshman programs, selected study abroad experiences and Integrated Inquiries. The Cluster section of the planner (which includes Clusters and academic programs) needs to be renamed Integrated Learning Experiences. Clusters will be renamed Integrated Inquiries.

The Planner is the face of the curriculum and the CIC, in consultation with the Dean of the College, should give consideration to the way in which the planner presents the curriculum to students and advisors.

**ii) WebFAC.** Faculty, Staff and Advisor resource. Various reports will need to be revised.

**iii) WebSTAC**. Student resource. Access point for the online planner, other curriculum-related reports. Various reports will need to be revised

**iv) WebAdvising**. Faculty, Staff and Advisor resource. Among other features, WebAdvising allows access to student curricular plans. Various reports will need to be revised.

**v) Online course listings.** Course display will need to be updated with new designations. Also an access point for various curriculum-related course reports that will require revision. Provides a link to College curriculum website. Also includes an FAQ section that could be revised to include curriculum-related information.

**b) SIS Applications**

**i) SISAdmin.** Provides functionality to append, remove and end display of designations for courses and integrated learning experiences (clusters, majors, minors). Provides functionality to link cluster conveners to clusters. Provides access to student records, including the planner; provides for plan management, including override and waiver capability. Provides curriculum reporting capabilities. Various reports will need to be revised. Provides graduation checkout (degree auditing) capability.

**ii) WUCrsL.** Provides capability to manage attribute data. Provides various curriculum reporting capabilities. Produces output for course listings publication, Discovery Guide publications and Bulletin (print and web).

**iii) AcadProg.** Cluster database. Data from AcadProg feed the Planner and various reports available in the online course listings, WUCrsL and SISAdmin.

**c) Publications**

**i) The Discovery Guide.** Annual publication produced by the College Office in conjunction with Publications and Marketing. It is a defined snapshot of the entire curriculum that is distributed to incoming freshmen and advisors every year.

**ii) The Passport Brochure. "**Pocket guide" to the curriculum, produced in conjunction with Publications and Marketing.

**iii) College Office Website**. Provides information analogous to that available in the Discovery Guide. URL: http://college.artsci.wustl.edu/curriculum

**iv) Undergraduate Bulletin.** Curricular requirements will need to be succinctly described for publication in the online bulletin.

**v) Course Listings.** A&S course listings "Front Matter" detail the curriculum. This material will require revision. Course Listings for the print publication are downloaded as rtf files directly from WUCrsL. This report will require revision

## General Recommendations

1. The date by which new technology and publications are to be in place must be determined. Adequate time for IS&T development and testing of any new and revised technology will be required.

   Once the curriculum implementation plan has been finalized, the Administration and Technology working group will be expanded to include representatives from functional areas responsible for managing the curriculum, student leaders and IS&T. The responsibility of this group will be to develop a project plan for implementing necessary changes to existing applications which support the management of the curriculum.

   The CIC should remain mindful of the recruitment calendar for Undergraduate Admissions.

   University Marketing and Design will need to be informed about the scope of changes and timelines developed for production of the Discovery Book, Passport brochure and Bulletin.

2. Administrators in the College and various A&S departments will need to be oriented to the curriculum and the various bureaucratic procedures (how to get a new course approved as AN, for example). Four-year advisors will need to be oriented to the new curriculum and trained in usage of the new online planning tool. A new instructor's guide to the curriculum could be developed in conjunction with the Teaching Center.

3. Improvements to functional usability of curriculum management tools will be evaluated and either combined with other technology upgrades to student information systems or, depending on timing, planned as part of the implementation of the new curriculum.

**Related Issues**

1. Overlap of curricular requirements.  For a period of 3+ years, the College will have students completing both the old (Discovery) curriculum requirements, and the new (ILM) requirements. A mechanism was in place to address this problem during the preceding round of curricular changes in 2001.  The same logic can be applied, but will require revision.

2. The attribute proposal process.  Today, paper forms are utilized, and at the very least these will need to be updated. A webform proposal with data tie-in to WUCrsL is worth exploring.

3. Departmental auditing of majors and minors.  Today, this is a manual process in many departments.  Automating major/minor auditing and integrating this process into the planner would add value to the student planner experience and greatly simplify degree auditing.

4. Assessment. The curriculum planner must provide management tools for assessing effectiveness of the curriculum beyond completion of distribution requirements.

*V. APPENDICES*

**A: CIC members**

**B: List of Current Freshman Programs**

**C: Documentation on Placement and Heritage Speakers from Spanish**

**D: Timeline**