

TOWARD A REORGANIZATION OF GENERAL EDUCATION AT QUEENS COLLEGE

Final Report of The President's Task Force on General Education

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September 1, 2004

To the Queens College Community,

The President's Task Force on General Education is pleased to present **TOWARD A REORGANIZATION OF GENERAL EDUCATION AT QUEENS COLLEGE** to the Queens College Community. This report concludes a three-semester review of general education at the College that began with the appointment of the General Education Task Force in the spring of 2003, charged by President Muyskens to consider, in the broadest way, the ideal undergraduate curriculum to prepare Queens College students for meaningful, productive lives in the early 21st century. The Task Force met weekly through the three semesters; a large number of faculty, academic support staff, and students attended a series of forums held in the spring 2003 and fall 2004 semesters; and more than 60 faculty and academic staff volunteered for the four Working Groups the Task Force conducted in the spring of 2004. Other members of the College Community communicated directly to the Task Force by email, conversations, and letters. We greatly appreciate this interest and participation from the College Community. It has been important to the work of the Task Force and is deeply reflected in **TOWARD A REORGANIZATION OF GENERAL EDUCATION AT QUEENS COLLEGE**.

This Report is organized into two sections. Part I presents the Task Force's proposal for a new, comprehensive system of general education for the College and specifies the particular requirements that would constitute this general education program. It also identifies important issues of resources, faculty development, and oversight that will need to be addressed if curricular change on the scale we envision is to be accomplished. Part II consists of appendices for the key elements of the proposal. These appendices, drawn in substantial measure from the efforts of the Working Groups, contain more detailed discussions of the thinking behind the specific recommendations contained in the report. Most important, the appendices provide a variety of curricular models, pathways, and suggestions, which, it is hoped, will encourage and inspire the faculty as it takes on the task of designing the courses and devising the pedagogical practices that will turn the plan for a new program of general education into a vibrant educational reality.

The Task Force embraced President Muyskens' challenge as an opportunity, rare in any academic lifetime, for the College Community to address the most fundamental questions facing it. This sense of the unique opportunity before us only deepened as we worked with our colleagues on this task. We firmly believe that future Queens College students will benefit from the educational program proposed here. However, there is an additional, perhaps less tangible, but equally important benefit that the College will derive from this process of educational reexamination and renewal. As the College debates and discusses the report and recommendations contained herein and as the faculty takes up the multi-year task of revising and devising the courses and educational practices it calls for, the faculty, inevitably, will become less a

collection of individual teacher/scholars largely scattered in particular departments, and more a genuine Collegium with a shared vision of liberal education.

With the completion of this report, the President's Task Force on General Education has fulfilled its charge and goes out of formal existence. We thank our many colleagues for their time, energy, and ideas. We look forward to the vigorous discussion about the proposals that now must take place in venues across the campus.

Sincerely,

Ali Ahmed
June Bobb
Martin Braun
Mary Bushnell-Greiner
Raymond Erickson
Allan Ludman
Frederick Purnell
Robin Rogers-Dillon
Donald Scott

TOWARD A REORGANIZATION OF GENERAL EDUCATION AT QUEENS COLLEGE

Summary

In spring 2003 President James Muyskens appointed a faculty Task Force on General Education to look at the general education program at the College, instituted nearly 30 years ago, consider the intellectual needs of Queens College students in the first quarter of the twenty-first century, and propose revisions to the existing requirements that would better address those needs. The Task Force was drawn from all academic divisions and included both senior and non-tenured faculty. It was aided and influenced in its discussions by open forums for faculty and students and, in the spring of 2004, by the efforts of Working Groups on The Entry Experience, Areas of Knowledge, Suffusing Critical Abilities throughout the Curriculum, and An Integrative Capstone Experience. The Working Groups met intensively over an eight-week period and presented written recommendations to the Task Force.

Although the Task Force's recommendations maintain several features of the current Basic Skills plus LASAR system, including the element of choice that is fundamental to the current system, the general education curriculum offered here differs in important ways from LASAR and proposes a significantly different program. The proposal below is shaped by three central assumptions:

- In an academic world in which knowledge is both increasingly fragmented, specialized, and professionalized, a central task of general education is to enable students to make connections across course and disciplinary boundaries and between their undergraduate education and the changing world they will inhabit
- General education should extend throughout a student's entire undergraduate education
- General education is an essential part of the teaching responsibility of faculty at all levels and an important part of the mission of each department and program

The Report recommends

- A stronger emphasis on the Entry Experience for both Freshmen and transfer students, in part addressed by a new required course (Understanding Higher Education) for all entering Queens College students to help them understand the tradition and importance of liberal education, and an

expansion of two- or three-course learning communities to as much of the entering first-year class as possible.

- The development of Area of Knowledge courses (which would have general education titles and course numbers, but also count towards majors at the discretion of the department). The Areas of Knowledge proposed are: Language and Literature; The Arts; Culture, Society and Historical Perspective; Scientific Inquiry and the Natural World; The United States Experience; Ethics, Morality, and Religion. These general education courses would exist at two intellectual levels:

1. Students would take nine lower-division, general education “foundation” courses that would introduce them to the above areas of knowledge.

2. Students would take three upper-division, general education “synthesis and integration” courses.

- The development of four “critical abilities” – written and oral expression; numeracy and quantitative reasoning; understanding and conducting research; understanding and using information technologies – that would be “suffused” across the curriculum through mechanisms similar to the Writing Across the Curriculum model.

TOWARD A REORGANIZATION OF GENERAL EDUCATION AT QUEENS COLLEGE

INTRODUCTION

At the beginning of the spring 2003 semester President James Muyskens charged the President's Task Force on General Education to consider, in the broadest way, the ideal undergraduate curriculum to prepare Queens College students for meaningful, productive lives in the early 21st century. He was aware that the structure of our current undergraduate curriculum was established nearly 30 years ago and has remained largely unchanged since then. Aware, too, that unprecedented changes have affected the world for which we must prepare our students, and that the organization, modes of dissemination, and scope of knowledge have been just as radically transformed, the President challenged the Task Force – and the College Community – to think deeply and boldly about what a Queens College undergraduate education needs to be and to provide our students with the knowledge as well as the analytical and communicative abilities necessary for equipping them to act as citizens of the city, state, nation, and world.

We are not alone in our concerns. Colleges and universities across the country are also re-examining general and liberal education. Similar discussions of the nature and role of general education are taking place at many CUNY campuses and we have kept in touch with developments at our sister schools. The Task Force has worked especially productively with colleagues at Queensborough Community College, our largest feeder school, to develop ways in which we each may better serve our students.

The Task Force has taken its charge very seriously. At the beginning of the 2003-04 academic year, the President released the first Report of the President's Task Force on General Education to the Queens College Community. This initial Report provided the basic framework that has guided the subsequent campus discussion through the past academic year. During the fall semester, the Task Force conducted a series of faculty forums on the Report, and members of the Task Force met with caucuses of each of the academic divisions as well as with the Undergraduate Curriculum Committee of the Academic Senate. In addition, the coordinator of the Task Force and other members met regularly with the President, Vice President, and members of the Academic Affairs Committee of the Student Government. In late November the Student Government held an open forum on the Report attended by members of the Task Force. On the basis of these discussions, the Task Force organized four Working Groups:

1. The Entry Experience
2. Areas of Knowledge
3. Suffusing Critical Abilities through the Curriculum
4. An Integrative Capstone Experience

The Working Groups were open to all faculty and staff members who wished to participate. More than 60 people joined the Working Groups, with some of them breaking up into subgroups that met intensively for eight weeks in the second semester. These Working Groups produced a series of reports, supplemented in turn by a number of comments and suggestions submitted to the groups and to the Task Force. The Task Force is deeply grateful for the efforts of our colleagues and has drawn heavily upon their ideas, discussion, and documents in the preparation of its Report and Recommendations.

THE ROLE OF GENERAL EDUCATION IN A QUEENS COLLEGE EDUCATION

A liberal education expands the mind and heart, opening windows and presenting opportunities never before imagined. More than a mere accumulation of credits and subjects, it enables an individual to learn new methods of inquiry and modes of understanding the world and to actively prepare a place for oneself within family, community, nation, and the world. As such, liberal education, as John Dewey argued, is more than preparation for a vocation: it is an education for living, one that makes undergraduates “intentional learners” who make live connections across subject areas to extend their understanding of themselves and the world. The goal of a Queens College liberal education is to equip its graduates with the intellectual abilities to negotiate an ever-changing world of information and knowledge and understand a complex, changing world and act in it as citizens of the city, state, nation and world. The heart of a Queens College education, then, lies in a set of critical abilities that permeates all aspects of the curriculum and characterizes an educated citizen. This includes an understanding of the nature, operation, and claims of different areas of knowledge and creativity as well as the ability to 1) understand and use effectively written, verbal, and visual communication, 2) obtain and evaluate information, including numerical and statistical data, derived from multiple sources, including the newer electronic media, 3) critically analyze hypotheses, knowledge claims, and advocacy arguments, 4) perceive the ethical dimensions of individual and collective action and behavior.

A liberal education at Queens College gives students both breadth and depth of knowledge. General education courses provide a broad background from the many areas of human knowledge and help students recognize the connections among these areas, while the major introduces the rewards of a more intensely focused intellectual pursuit in a single discipline or group of related areas. A baccalaureate education comprises these two components and a third – electives – through which students may explore areas of knowledge even more broadly. All three contribute to the College’s educational goals and must therefore be considered within the context of the entire Queens College experience. What is a required course for a Sociology major may be an elective for a chemist; an introductory Dance course may be the first step toward a career for one student, but be an elective taken for enjoyment and curiosity by another. As the College Community reexamines the Queens College

baccalaureate experience, we must consider how each course and program of study furthers our overall educational goals.

We propose that Queens College develop and adopt a new system of general education. This new system would continue to provide students with choice, flexibility, and a variety of paths by which to meet the College's general education goals and requirements. At the same time, it would also provide them with a broad education that connects and integrates the different areas and modes of knowledge and understanding they will encounter over the course of their undergraduate career. The general education recommendations delineated below are based upon the following assumptions:

1. In the contemporary academic world in which knowledge is both increasingly fragmented, specialized, and professionalized (while also crossing disciplinary boundaries in new and unprecedented ways), a central task of general education is to enable students to make connections across course and disciplinary boundaries and between their undergraduate education and the constantly changing world they will continue to inhabit.
2. General education should not be confined to a set of courses taken at the outset of a student's undergraduate career but should extend throughout the whole of it.
3. The acquisition and deepening of "critical abilities" should take place within substantive contexts, integral to the pursuit of the specific subject a course addresses and the knowledge practices it employs, rather than in separate preparatory courses.
4. General education is an essential part of the teaching responsibility of faculty at all levels and an important part of the mission of each department and program.

This document presents a detailed discussion of general education and makes recommendations for a reassessment of the relationships between general education and the major. In revising the College's general education requirements, we had to balance two needs – those of incorporating breadth appropriate for the 21st century and maintaining room in a student's baccalaureate program for intellectual exploration – a task made difficult by the wide range in the number of credits associated with the liberal arts and professional majors offered at the College.

GENERAL EDUCATION RECOMMENDATIONS

The Task Force recommendations are summarized in Figure 1. The proposed general education requirements differ from the current LASAR and Queens College requirements in the following ways:

- a. The proposed requirements are a comprehensive and cohesive package that will foster intellectual growth and experimentation throughout the undergraduate experience.
- b. Areas of knowledge are more explicitly defined and some are not included in LASAR (Ethics, Morality, and Religion)
- c. Goals are spelled out for each requirement and criteria are suggested for evaluating courses and proposals designed to satisfy the requirements.
- d. An entry experience for all new Queens College students (Understanding Higher Education) will engage students in explicit discussions about their education and its relationships in time and space with other curricular models.
- e. In accordance with the view that general education should permeate the entire undergraduate experience, we propose two levels of general education requirements—a group of “foundations of knowledge” courses from several areas of knowledge to be taken before completing 60 credits, and a smaller group of upper-division courses, to be taken after 60 credits, that will integrate and synthesize across those areas.
- f. We identify several critical abilities that students should develop and hone throughout their undergraduate career. Some are currently addressed through individual courses (e.g. Quantitative Reasoning) but some are not mentioned at all in LASAR. At least some of these must be part of every general education course, and the entire group of critical abilities must be reinforced through the completion of all majors.

There must inevitably be similarities between our proposal and LASAR. In its implementation, for example, our proposal maintains the current practice of course choice in satisfying requirements, rather than recommending a core of identical courses to be taken by all students. In addition, comparison of general education models from colleges and universities across the country shows that although there are many ways to map an undergraduate curriculum, there is broad consensus about the areas of human knowledge that should be part of every educated student’s background. The areas of knowledge recommended by the Task Force lie within that consensus, as do the current LASAR requirements (Figure 1), but the differences enumerated above represent a significant departure from current practice.

Figure 1. Summary of General Education Requirements		
Type of General Education Requirement	Courses	Credits
Understanding Higher Education	1	3
English 110: College Writing	1	3
Math 110: College Mathematics	1	3
Areas of Knowledge:		
a. Foundations	9	28
b. Integration and Synthesis	3	9
<i>Totals</i>	<i>15</i>	<i>46</i>
*Foreign language (similar to current requirement)		
**Physical Ed. (drop current requirement)		
*Most students satisfy this requirement on entry because they have had three years of high school language or by passing a language proficiency test.		
**The Task Force recommends that there be no Phys Ed requirement		

It should be noted that this summary of general education requirements represents the maximum general education courses and credits that could be required of a student. It is expected that a number of area of knowledge courses might meet more than one area requirement, thereby reducing the overall number of courses needed to fulfill the general education program.

Critical Abilities Throughout the Curriculum

Few refrains have been more insistent in the many recent discussions, reports, and calls for reform of higher education than the need for colleges and universities to foster in their students the capacity for “critical thinking.” The Task Force strongly endorses this goal. Students need to understand that knowledge is constructed from “data” and “evidence” (themselves subject to dispute and debate). They need to learn to identify and evaluate different viewpoints; to understand how different kinds of arguments are constructed – to recognize the assumptions and purposes that inform them – and analyze and evaluate them; and to learn how to construct their own logical and persuasive arguments.

We do not, however, consider “critical thinking” a discrete, isolated “ability” to be taught in a few foundational or introductory courses. Rather, we consider the capacity for critical thinking to be a basic, indeed, fundamental goal that must be addressed through the entire course of a liberal education. Accordingly, the Task Force has identified the following set of specific, often overlapping, complementary, and reinforcing “critical abilities” that need to be incorporated into the College’s general education requirements and that, together, constitute the capacity for “critical

thinking” a Queens College graduate should possess. Moreover, we believe that responsibility for equipping students with these abilities needs to be suffused throughout the curriculum and be expressly embedded in courses at every curricular level. (The rationale and specific goals for each of these abilities, strategies for embedding the critical ability “requirements” in courses, and the criteria that need to be met for a course to fulfill a critical ability requirement are enumerated in Appendix I.)

1. Expression and persuasion: being able to communicate through writing and speaking
2. Thinking through numeracy: understanding of and ability to engage in quantitative analysis and reasoning
3. Creating knowledge: understanding of and ability to conduct research
4. Information literacy: understanding of and ability to use media sources of information and communication.

The Entry Experience – Understanding Liberal Education.

The Task Force recommends the institution of a new requirement: a 3-credit course provisionally entitled “Understanding Higher Education” that will serve as an orienting intellectual experience for new students. This course is intended to engage students – many and perhaps most of whom are the first in their family to attend college – in serious, reflective examination of their own education. It will develop in them an understanding of the nature and purposes of their liberal arts education at the College against the background of the traditions of education in the Western world, but with special attention to the United States and New York City, and some comparisons with non-Western educational systems. It will explore philosophical, cultural, economic, political, religious, and technological issues that have shaped, and continue to shape, education and also trace the concept of the liberal arts from ancient Greece to the present.

The subject matter of this course, not being limited to a single discipline and of universal relevance, could be taught by faculty members from a number of departments. This course, as would general education area of knowledge courses, would hone several of the critical abilities indicated above. Freshmen would be expected to take this course, in addition to English 110, during their first year. (See Appendix II for a more detailed discussion of the overall entry experience for both first-year and transfer students.)

Areas of Knowledge

The proposed “areas of knowledge” requirements contain several areas similar to some in the current LASAR model and two new ones – the U.S. Experience and Ethics, Morality, and Religion (Figure 2). Discussions at Task Force meetings and campus hearings suggested that these are as important for Queens College in the 21st

century as the other recommended areas. (The rationale for each of these areas of knowledge, specific goals for each, and criteria that must be met by courses proposed to satisfy them are enumerated in Appendix III.)

Figure 2: General Education			Areas of Knowledge Requirements		
Foundations (prior to 60 credits)			Integration/synthesis (following 60 credits)		
Area of Knowledge	Courses	Credits			
Language and literature	2	6	Three courses, each of which integrates a minimum of two foundation areas of knowledge. These courses should be based on issues and/or problems, e.g. "Science and Society," "Peopling America," "The United States and the World," "Art and Cultural Change, Ethics and _____ etc.		
Arts	1	3			
Culture, society and historical perspective	2	6			
Scientific inquiry and the natural world	2	7			
U.S. Experience	1	3	3 Courses	9 credits	
Ethics, morality, and religion	1	3			
Sub-totals					
Foundations	9	28			
Integration/synthesis					
Totals, Areas of Knowledge	12	37			

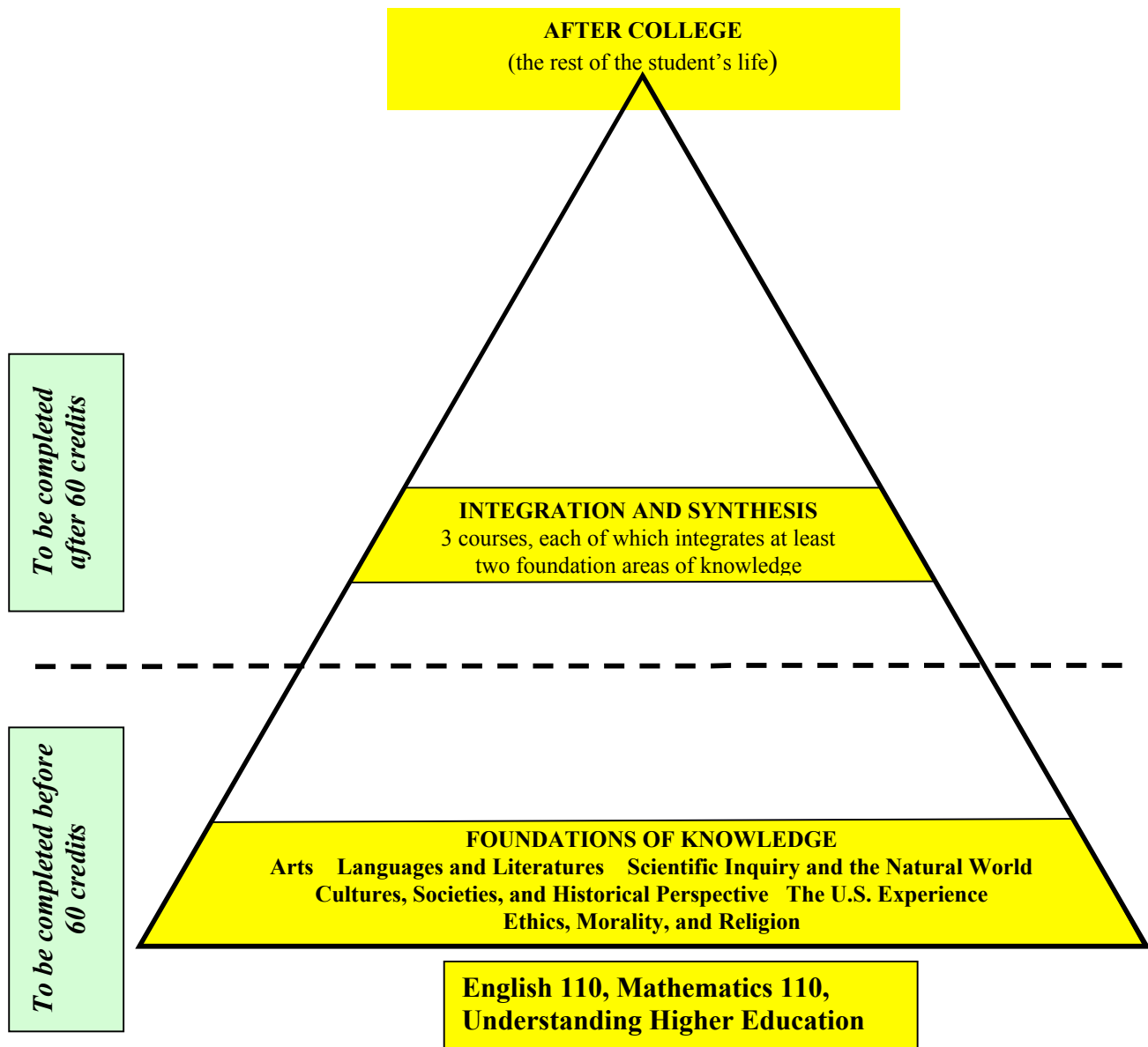
Two-tiered Structure for the Areas of Knowledge Requirements

There was broad consensus among participants in campus discussions and working groups that contributed to this proposal that *connections among areas of knowledge are as important as the areas themselves*. Ideally, such connections would be made in *all* courses, but we recommend a two-tiered structure that will promote cross-disciplinary thinking and recognition of the connectedness of the areas of knowledge. **Foundation** requirements listed in Figure 2 encompass a greater breadth than LASAR, fulfilling the traditional Liberal Arts and Sciences function of general education. The principal purpose of these courses is to allow students to experience the range of methodologies and philosophies as well as the content associated with the many areas of human knowledge. While we recommend that *all* general education courses should be interdisciplinary to some extent, that is not the principal purpose of the foundation courses. These courses will be designed and designated as general education courses. However, where appropriate, such courses could also be departmentally designated as meeting the needs and requirements of a particular major. (See Appendix III for suggested, general guidelines for courses or sets of courses that fulfill the general education foundation requirements.)

Cross-disciplinarity is precisely the function of **upper-division general education** requirements designed to stimulate **integration and synthesis** after completion of 60 credits and the CPE. This sequential structure furthers the goals of general education by enabling students to build on lower-division areas of knowledge when they are more intellectually mature and can better recognize connections and contrasts. Upper-division general education requirements will cross discipline boundaries to focus on

significant issues and problems, including those of particular importance to New York City, the nation, and the world. (See Appendix IV for suggested general guidelines for upper-division general education courses.) This arrangement also guarantees that transfer students will share in an educational experience that is unique to Queens College.

Figure 3. The Two-tiered Areas of Knowledge Requirements



GENERAL EDUCATION AND THE MAJOR

As vital parts of the baccalaureate curriculum, general education courses and those taken within each major contribute in different ways to the College's overall educational goals. At the same time, they share those goals and the responsibility to help students attain them. Recognizing connections among different areas of knowledge, synthesizing across both broad and narrow areas of knowledge, and honing critical abilities, therefore, should permeate students' entire educational experience, not just the courses taken to satisfy general education requirements.

In pursuing these goals, general education and the major are synergistic and parallel. Therefore, the Task Force recommends that, in parallel with the general education requirements,

- Each major should describe in a programmatic way (i.e., not on a course-by-course basis) how completing the major concentration of courses enables students to practice and improve the skills identified as critical abilities;
- Departments should consider linking some advanced courses required for the major with those in other departments so that students can understand the cross-fertilization that permeates all intellectual pursuits – at all levels of depth and rigor. Many majors already do so and we encourage others to follow suit;
- Departments that do not already have a capstone experience in their majors should consider adopting one that would be most appropriate for their unique missions. The integrative upper-division general education courses serve this function *outside the major* and there is widespread recognition that student involvement in such a capstone for their major significantly enhances their education.

KEY ISSUES

Oversight

The transition from LASAR + Queens College requirements to a new general education curriculum is a prodigious task comprising several major steps once the final form of the new curriculum has been approved. These steps include:

- development by faculty of new courses and revision of existing courses;
- evaluation of all courses submitted to satisfy general education requirements for both the lower-division Foundations of Knowledge and upper-division Synthesis/Integration levels;
- maintenance of curriculum effectiveness, including ongoing assessment and periodic re-evaluation – functions absent from the current LASAR curriculum;
- stimulating faculty to develop improved pedagogies, innovative courses, etc., that further the goals of the curriculum;
- obtaining external funding to make curriculum improvement a continuous activity.

The Task Force is concerned that, without vigilant supervision, the momentum associated with designing a new general education curriculum will be lost and the goals of that curriculum will not be attained. We are also concerned that because the steps outlined above cross several areas of responsibility at the College, supervision may not be as coordinated and effective as is required. For example, while approval of courses as satisfying requirements is the purview of the Academic Senate through its Undergraduate Curriculum Committee, stimulating faculty to develop new pedagogies is a function of the Center for Excellence in Teaching and Learning – an office that at this time has not yet become functional. Finally, we fear that an already heavily burdened Undergraduate Curriculum Committee will not be able to take on this added review responsibility.

In many colleges and universities with a clearly delineated extra-departmental general education program of the sort proposed here, general education has a cross-departmental, cross-divisional institutional location in a specific Office or Committee on General Education. We therefore recommend that the Academic Senate leadership work with Provost Gizis to create an appropriate structure to supervise and coordinate general education activities. Such an office, provisionally named the “Office of General Education,” has been at the forefront of all of our implementation discussions. Precedents exist for some of the functions of this office, as in WAC curricular decisions for our current Writing requirement. In order to develop campus ownership of the new general education curriculum, we favor the UCC representative structure in which students and faculty from across the divisions make the decisions.

New models will undoubtedly have to be created as well in order to achieve the overall goals of the new curriculum.

The proposed Office of General Education must have the authority to act decisively and energetically, perhaps under the aegis of the Provost's Office.

Resources

In the end, the curricular experimentation and improvement we envision depends on the ideas and efforts of faculty. Accordingly, the curricular change on the scale envisioned by the Task Force requires the commitment of significant and ongoing resources to enable faculty to design the new courses, incorporate attention to the development of key critical abilities into existing courses, and develop curricular materials and new pedagogical and technological practices that will be needed. Through its participation in the CUNY Undergraduate Education Project (CUE), the College has requested more than \$50,000 for course, curricular, and pedagogical development for academic year 2004-2005. In addition to an ongoing commitment of CUNY and College resources to the faculty development needed for this reform of general education, the College will need to aggressively seek foundation and grant support.

Incorporation of Curricular Reform and Revision Work into Faculty Recognition and Reward Structures

As suggested above, devising and implementing a new general education curriculum will require extensive program planning and faculty development at the College, divisional and departmental levels, as well as conversations and collaborations that will cross these somewhat artificial boundaries. Conscientious faculty who develop new courses, learn and incorporate assessment methods into their classes and programs, and investigate and employ new pedagogic approaches, will, of necessity, have to devote more time to the teaching portion of their faculty responsibility than is often the case now. Such curricular attention and change challenges the College to recognize the time and effort such activities require and to genuinely value and reward these contributions when considering tenure and promotion.

TIMETABLE

Academic and cultural changes as broad as those called for in this proposal cannot be developed and implemented overnight. (Harvard University, for example, took five years to develop the general education program it called for in the famous “red book,” *General Education in a Free Society*. The Harvard faculty adopted the new curriculum in 1945, but it did not go into effect until 1950.) Current students are bound to our LASAR and Queens College skills requirements. Plans for a transition to the new set of requirements must be well thought out so as to avoid hardship or confusion for future students. LASAR requirements should be replaced gradually by the corresponding new areas of knowledge and critical abilities until the complete set of requirements is in effect. Until the date at which a new general education program is ready to go into effect as the required system for all new students, students should be able to use the newly developed general education courses or sets of courses fulfilling the new areas of knowledge and critical abilities, along with LASAR courses, to meet the LASAR and Skills requirements. We respectfully suggest the following five-year timeline:

2004-2005 All-campus discussion of the proposed general education requirements. Consideration by the Undergraduate Curriculum Committee. Approval by Academic Senate, including mechanisms for monitoring “suffusing critical abilities.”

2005-2006 Office of General Education approved and staffed. Four-year plan developed that maps which areas of knowledge and critical skills are to be phased in first. Proposals solicited for courses to satisfy first group of new requirements.

2006-2007 Initial areas for which courses have been approved begin to replace LASAR requirements for new students. Second group of areas of knowledge and critical abilities is addressed (course proposals solicited, evaluated).

2007-2008 Complete approval process for all area of knowledge courses.

2008-2009 General education proposal fully operational.

APPENDICES

Appendix I: Suffusing Critical Abilities across the Curriculum

Critical thinking is thinking that is focused, logical, and outcome oriented. Students in classes where critical abilities are enhanced must analyze, interpret, and evaluate viewpoints in order to arrive at a desired objective. Their analysis must, however, be grounded in logically reasoned patterns. They are thus encouraged to embark on a quest whose ultimate purpose is to dissect, understand, and judge the validity of a viewpoint. By honing their critical abilities in this way, students come to understand how knowledge is made and how all forms of knowledge are human constructions. They also come to realize that all forms of knowledge emerge within social and historical contexts.

The strategy the Task Force recommends for fulfilling the educational goal of making critical thinking a “habit of mind” for all its graduates is to incorporate the development of critical abilities as an explicit goal for courses across the curriculum – in courses in the major as well as in specifically designated general education courses and in courses taken throughout a student’s undergraduate career. The work of suffusion as a whole entails the honing of abilities that transcend or discourage the ghettoization of disciplines. It also goes beyond the mere acquisition of basic utilitarian skills. Analytical, interpretive, and evaluative thinking instills in students the ability to embark on a journey whose end-result is not known; to question and interrogate their own beliefs and assumptions; to discern meaning in minutia, while keeping the broader issues and perspective pictures in mind; to surmise when, how, and why forms of knowledge enforce, transgress, or turn a blind eye to existing social codes.

When incorporating the development of critical abilities into courses, several considerations should be kept in mind. First, though for analytical purposes we may distinguish between critical abilities and areas of knowledge, we believe that the acquisition and development of critical abilities should take place within substantive contexts, not as antecedent or abstract skills, but as concrete and situated intellectual practices integral to the pursuit of the knowledge and understanding a particular course addresses. Secondly, the course should build explicit attention to the development of the desired ability into its structure and pedagogical strategies. In the Writing Across the Curriculum program, for example, a writing intensive (W) course is not simply a course that assigns a designated amount of written work, but one that self-consciously addresses the practice of writing in a particular discipline or intellectual context. Similarly, a course that incorporates the development of skill in quantitative reasoning into its goals needs to go beyond, for example, the assignment of a set of statistical problems to address the analytical procedures that go into the creation of the knowledge in the particular discipline. Finally, the development of critical abilities should be continuous and cumulative. Attention should be paid to identifying at what level in the curriculum – entry, mid-course, or in the student’s final semesters – particular pedagogies are efficacious and most useful. Departments will need to

pay attention to how, in their paths through the major, students need to acquire and sharpen the critical practices and abilities that are essential to gaining the depth and mastery that is the goal for the completion of a major and that, in the end, will constitute an essential part of their general education.

Critical Abilities

EXPRESSIVE ABILITIES: WRITTEN AND ORAL COMMUNICATION

Written Expression:

Academic writing is essential to undergraduate education. Accordingly, students need to develop the ability to:

- Identify and extract pertinent information from both oral and written sources
- Understand and analyze the various forms of written expression they encounter in their undergraduate education
- Write in the various modes, styles, and voices in a variety of disciplines
- Integrate the words and ideas of others into their own writing and document them properly
- Be consistent in the use of Standard American English

Implementation

To develop academic writing and to encourage multidisciplinary experience, students should continue to be required to take ENG 110 plus three additional Writing Intensive (W) courses. English 110, required of all beginning students without exception (even students in the CUNY Honors College are required to take a special section of the course) provides students with the essential grounding in the understanding and practice of academic writing that will be extended and deepened by the required Writing Intensive courses and, it is hoped, by the writing students are asked to do in a substantial number of other courses. The Task Force recommends that these three additional W courses be taken in at least two different departments. Ideally, one of these should be an upper-level course, preferably a seminar, in the student's major (however, we recognize that in some majors, such as those leading to teaching certification, where students have heavy student teaching requirements, this may not be possible).

Oral Expression:

A common refrain in many forums and in discussions of several working groups was that the College needs to give greater attention to developing our students' ability to engage in effective oral communication. This involves the ability to

- Participate in small or large group discussions by actively listening to

others, asking and answering questions, and offering comments

- Contribute to an atmosphere of mutual respect when voicing disagreement
- Present one's work in academic and/or professional contexts by speaking clearly and effectively and with appropriate body language in front of an audience
- Illustrate and highlight important points or information verbally (oral and written) and nonverbally (e.g., through audiovisual aids)

Implementation

The Working Group recommended that training in oral expression become a formal part of the curriculum. It proposed that students be required to take two O (Oral Skills) courses (modeled after W courses). O course recommendations include:

- More discussions than lectures
- Small group collaborations, including in-class dialogue
- At least two oral presentations, one of which must be given individually and the other in a group
- The use of professional media, such as PowerPoint, where applicable
- No more than 25 students in the class

THINKING THROUGH NUMERACY: UNDERSTANDING OF AND ABILITY TO ENGAGE IN QUANTITATIVE ANALYSIS AND REASONING

Numeracy is an increasingly important ability in contemporary life, in many respects comparable in significance to literacy. The development of this ability needs more focused and systematic attention in the undergraduate curriculum. Citizens in a democratic society are constantly bombarded by numerical data used to justify and explain public policy and governmental decisions. Numerical information is used and generated by most businesses, professions, and many fields of academic research.

The art of exact thinking encompasses logical inference, numerical as well as symbolic calculation, and quantitative modeling. This would also include the art of algorithmic problem solving – finding the steps of a goal-oriented computational process. However, not everything is a quantifiable certainty. Even in areas of the hard sciences and engineering, we often seek solutions that are within some acceptable margins of error. We need the ability to view all available evidence with the proper perspective and make a judgment call or educated guess based on incomplete and/or uncertain information (e.g., to diagnose a patient with atypical symptoms, to forecast economic growth, to take sides in a controversy – be it scientific or political).

Students need to develop competency in interpreting mathematical data (both numerical and graphical), as well as the capacity to apply critical analytical skills to understand and analyze arguments based upon quantitative relationships and logical assertions. This includes the ability to

- construct quantitative relationships from verbal statements of a problem and apply mathematical reasoning to real-world information
- tabulate, analyze, represent graphically, and draw inferences from numerical data
- Understand issues of scale and rates of change and their application
- Draw accurate conclusions based on statistics and probability

Implementation

The Task Force recommends that the College adopt a structure for providing our students with a solid understanding and proficiency in numeracy analogous to the structure for providing them with a solid understanding and proficiency in writing. First, we recommend that all beginning students be required to take a college-level mathematics course. For most students, this might be a course similar to or based on Math 110, though students could satisfy this part of the numeracy requirement by taking a more advanced, college mathematics course. In addition, students would be required to take three courses, designated as Q courses, which would incorporate instruction in quantitative reasoning explicitly into the structure and goals of the course. A quantitative reasoning subcommittee, similar to the WAC committee, should be established to approve and monitor Q courses. Moreover, students should select their Q courses from at least two divisions or areas of knowledge. Students should include at least two Q courses in the first 60 credits in order to prepare for the quantitative reasoning portion of the CPE examination. However, students should be encouraged to take additional upper-division courses, including upper-division general education and capstone courses, which involve the use of quantitative reasoning.

RESEARCH: UNDERSTANDING OF AND ABILITY TO CONDUCT RESEARCH

The creation of knowledge is a central activity of the modern university. The Task Force, believing that undergraduates need to be understood as knowledge makers rather than simply the recipients of knowledge from others, recommends that participation in research be incorporated into the educational experience of all Queens College undergraduates. The subcommittee on research abilities recommends that:

1. Students should take two courses (R courses) in which active participation in research is an integral and central part of the course.
2. One of the courses should be taken in a division other than the student's major division.
3. Approval of R courses should follow the guidelines developed by the Middle States Commission report on Developing Research and Communication Skills. The report's statement of Learning Goals across Academic Levels provides a useful summary of goals for R courses.
4. A Research Intensive Subcommittee (RISC) similar to the Writing Intensive Subcommittee should be established to approve and monitor R courses.
5. Research Courses may be at any level, including the general education area of knowledge foundation courses, although most will be 200- or 300-level courses.
6. Class size in R courses or sections should be limited to 25 students. (Multiple section courses might offer R sections in addition to non-R sections.)

We encourage faculty to incorporate attention to and experience with research practices into courses at various levels whether or not the course is designed specifically to be an R course.

INFORMATION LITERACY: UNDERSTANDING AND ABILITY TO USE TECHNOLOGICAL AND NEW MEDIA SOURCES OF INFORMATION AND COMMUNICATION

It is difficult to overestimate the growing importance of technology in both the production and dissemination of knowledge and information as well as in teaching and learning. General education therefore must include the ability to

1. Use technology to facilitate expression
2. Understand how the use of technology influences expression, learning, and knowledge

The Task Force recommends that attention to technology be spread more fully and deeply across the curriculum by

- Incorporating it into the Freshman Year Initiative (FYI) learning

communities through special sessions arranged through the Library for English 110 sections, through the Office of Instructional Technology, and the increased use of Blackboard in FYI and other courses.

- Introduce all incoming students to the importance of the Rosenthal Library as a crucial source for technologically accessible information
- Inclusion of the use of information technologies in areas of knowledge foundations courses.
- Use of Technology in Research (R) courses.

****A NOTE ON SUFFIXES**

Several of the subgroups, using the W model of the WAC program, suggested using suffixes as a mechanism for identifying courses which would satisfy a particular “ability” requirement. The Working Group is aware of some of the logistical difficulties of proliferating suffixes and that it could result in a curricular structure that is both cumbersome and confusing for students, faculty, and departments. Equally important, it is aware that there is a broader concern nationally among composition scholars working in writing across the curriculum programs as to the desirability and effectiveness of isolating instruction in a key practice, ability, or skill in a few “ghettoized” courses. The Task Force recommends that these suffixes be confined to Writing (W), Oral Expression (O), Quantitative Reasoning (Q), and Research (R). It is possible that when the new program is fully developed and implemented, with one or more “core abilities” incorporated into each of the general education courses and embedded in courses at several stages in the majors, a scheme of suffixes might be superfluous and unnecessary.

Appendix II: The Entry Experience

First-year students:

The Task Force consideration of the “Entry Experience” for first-year students focused on the question of how first-year students may best be introduced to what it means to be a Queens College student and enable them to make the transition from high school to the very different educational environment they will encounter at the College. The Task Force believes that it is particularly important to counter the isolation and lack of a sense of connection to other students and the College that commuting entails. It is therefore especially important that the College create, at the outset of their career here, as rich a collegiate educational experience for our students as possible. This involves

1. Helping them understand the nature of the university and of university education, as well as the specific value of pursuing a liberal arts degree.

2. Preparing students for what college-level work requires by ensuring that all incoming students know about college-level intellectual practices and expectations.
3. Encouraging students to identify with, and create a sense of excitement about, the College and providing them with common though not uniform experiences that make them feel part of an intellectual community.
4. Making visible the College's commitment to the academic success of each individual student.
5. Enabling students to negotiate and operate effectively in a complex institution.
6. Acquainting students with the College's library and technological resources and equipping them to make regular and effective use of these resources.

The First-year Curricular Experience:

The FYI (Freshman Year Initiative) Program provides the core curricular and educational experience in the first semester for a majority of our first-year students. It enrolls students in a learning community typically consisting of 40 students, who ordinarily take three courses in common. Faculty teaching in an FYI community ordinarily meet to coordinate syllabi and when possible identify and pursue intellectual linkages across the courses. In addition, the FYI program addresses several of the needs noted above through community co-curricular activities, a program of upper-division FYI student mentors, special library and technology orientation sessions, and various advising mechanisms. More specifically, within the context of an often large and anonymous commuter population, FYI provides students with a community of peers and provides at least one seminar-style course (English 110) in which students receive close individual attention from a faculty member.

In addition to the institution of the new course, "Understanding Higher Education," the Task Force recommends

- The expansion of the FYI program to include a larger portion of the entering class.
- That all FYI communities include at least one course that satisfies one of the Areas of Knowledge courses and, whenever feasible, that one of the courses in the community include a Quantitative Reasoning (Q) or Oral Expression (O) component
- The development of two-course learning communities for students whose circumstances prevent them from availing themselves of the opportunity to enroll in a three-course learning community
- That a typical first-year student's academic program (30 credits), whether or not he or she participates in FYI, include "Understanding Higher Education," English 110, Math 110, three or four Area of Knowledge general education courses, and two or three departmental courses in which they explore

possible majors and/or begin taking pre-med courses or required courses for highly sequential majors

- That students in their first semester be introduced, through courses or special training sessions, to the library and technology systems available on campus.

(Note: The Entry-Level Working Group made a number of useful suggestions about co-curricular activities that would aid in overcoming the isolation and lack of a sense of connection to the College that commuting entails, including an expansion of the incorporation of campus events, e.g., dramatic and musical performances, lectures and forums on various topics, into FYI community activities or courses, expansion of the CLIQ program, etc.)

Transfer Students:

The Task Force is aware that a change in the College's general education program on the scale envisioned involves complex issues of articulation with other CUNY schools and the transferability of general education requirements met or courses taken elsewhere. It is also aware 1) that nearly 60% of Queens College graduates began their collegiate education elsewhere and 2) that students who have fulfilled general education requirements at other CUNY community and four-year colleges are considered to have met the general education requirements of the CUNY four-year college to which they might transfer.

The members of the General Education Task Force have participated with colleagues from the other CUNY campuses who are engaged in a similar examination of general education in an effort to develop the common understandings about general education that will facilitate transfer and articulation across a broad spectrum of very different institutions. The Task Force has worked especially closely with members of the General Education Review Committee at Queensborough Community College, our largest feeder institution. The pilot committee composed of members of the QC Task Force and the QCC general education committee organized last year met regularly through the 2003-2004 academic year. The focus of this joint committee has been to develop a pilot program (tentatively called Bridge to Transfer) in which first-year QCC students who are identified as intending to transfer to Queens College upon completion of their AA degree would be supported through an advising structure and a program of study designed to ease the transition to Queens College. The initial pilot year (2004-2005) will involve parallel Learning Communities at QCC and QC in which the faculty involved will meet together, plan collaborative projects, and develop ways for faculty and students to move more easily between the two campuses. As envisioned, this parallel, collaborative structure would be developed to extend into the second year. A continuing steering committee composed of faculty and key administrators from both campuses will be established to help develop deeper modes of collaboration and articulation between the two campuses. In addition, Queens College will seek to adapt and/or develop comparable collaborative efforts and mechanisms with other key feeder community colleges such as Nassau

Community College and LaGuardia Community College (our 2nd and 3rd largest feeder institutions.)

Finally, one rationale for instituting an upper-division general education requirement is that it guarantees that transfer students will share in an educational experience that is unique to Queens College. In addition, extension of attention to general education across the four-year experience through the suffusion of critical abilities into upper-division courses will enrich the general education that transfer students receive once they enter the College.

Appendix III: Areas of Knowledge

LASAR is a distribution system of general education, consisting of department and academic program courses designed primarily to meet the needs and requirements approved by the Undergraduate Curriculum Committee and the Academic Senate as fulfilling the requirements of a designated Liberal Arts and Sciences Area. The Task Force's approach to the areas of knowledge differs from LASAR in some significant ways. Our starting point is the area of knowledge rubric (all of which cross disciplinary, departmental, and divisional boundaries) rather than departmental courses. The areas of knowledge are intended to provide the definitions and criteria for specifically designated general education courses, rather than as categories into which courses largely designed for departmental purposes might be placed. (It needs to be reiterated that where appropriate and necessary, general education courses would also be listed as departmental courses and cross-listed as fulfilling the requirements of a particular major.) Secondly, unlike LASAR with its Humanities I, II, III, Social Science, and Natural Science taxonomy, the proposed areas of knowledge do not map directly onto the structure of the academic divisions. Rather, it is expected that as the multi-year task of curricular development proceeds, faculty from across the divisions will be likely to develop and teach courses in all the areas of knowledge.

As stated in the main body of this report, the Task Force believes that it is a central task of general education to enable students to make connections across course and disciplinary boundaries and thereby, in Vartan Gregorian's words, "develop a better understanding of the relationships and connections between all fields that intersect and overlap." The Task Force, moreover, is fully aware that our work as scholar/teachers is inescapably grounded in a particular disciplinary formation, even when it is significantly informed by scholarship from other disciplines. As it properly should, then, the task of developing new or revising existing courses as specific general education courses is the responsibility of discipline-based faculty working by themselves, with other departmental members, or with faculty from other departments and divisions.

Required General Criteria:

All Area of Knowledge general education courses should

- Directly and specifically address in their design and structure the goals of the specific Area(s) of Knowledge requirement they are designed to fulfill
- Address issues of how the discipline(s) used in the particular course construe their sources of data and evidence and construct knowledge
- “Embed” specific attention in their design and structure to the development of one or more of the required “core critical abilities”

Suggested General Guidelines for the Development of Area of Knowledge Courses:

The Task Force suggests that wherever and in whatever form is appropriate for the particular area, attention be paid to the following considerations in the development and revision of general education courses. That they

1. be global and/or comparative in their reach
2. address issues of diversity and the nature and construction of various forms of difference
3. utilize the rich diversity of the College and Borough of Queens as a unique and valuable educational resource
4. engage students in active inquiry
5. involve reading and analysis of primary documents and materials
6. address the nature and significance of differences in time and space
7. use the Borough of Queens and New York City as instructional resources
8. involve students in various forms of civic engagement, including internships, field-based courses, and service learning, as part of course structure and activities.

Rationales and Definitions:

Language and Literature (6 credits)

Language is a uniquely human tool of communication, possessing both universal characteristics and wide-ranging diversity. Students need to be aware of the origins, organization, acquisition, application, variety and properties of language through the examination of such topics as the structure of language, language use in social context, language variation, the origin and historical evolution of language, multilingualism, the acquisition of language, language and culture, language and mind.

The study of literatures from various times and places provides students with a way of achieving a deeper appreciation of themselves and their own lives and the lives of others, giving them profound entry into human existence and deepened understanding of the worlds and societies we inhabit. Literature contains individual, cultural, and societal outlooks as well as examples of the establishment, maintenance, and rupture of traditions and provides a rich site of pleasure, amazement, and meaningful questions about persuasive strategies and the scrutiny of historical, cultural, racial, and gender perspectives. Close reading of literary texts in various genres provides students entry not only into the texts themselves but deeper understanding and appreciation of written language itself.

Arts (3 credits)

Artistic and aesthetic understanding is an essential part of a liberal education. Students should become acquainted with specific modes of creative expression in the performing or fine arts – art, architecture, film, photography, music, theatre, or dance – through courses that enable them to understand and appreciate particular arts as well as understand the arts in social and cultural contexts, not only as creative forms, but as practices central to social and cultural life.

Culture, Society, and Historical Perspective (6 credits)

In the complex society and world in which we live, an educated citizen needs to understand the data and methods and the perspectives and theories that organize social inquiry and understanding. It is also important for students to understand how different societies and cultures are organized and function; the nature of power and how different systems of politics and governance operate; the development of states and nations and the relations among them; and the organization and operation of economic systems. This involves an understanding of how change has occurred over time and an awareness of how the past is embedded in the contemporary world as well as how cultures, societies, and economies develop and differ over time and space.

Scientific Inquiry and the Natural World (7 credits)

Scientific inquiry is a continuing and adapting process through which we examine and communicate how the natural world works. Students should comprehend basic principles underlying the operation of the natural world, how scientists assemble, create, and interpret data, and formulate and test hypotheses. It is also important for students to develop an understanding of the place and operations of scientific knowledge in the contemporary world, as well as how ideas about “science” have affected the past and shape the present. In fulfilling this requirement, students should take a laboratory-based course that concentrates on scientific method and research in the construction of scientific knowledge.

The United States Experience (3 credits)

It is important that our students understand the emergence and operation of the United States as a distinct nation that is a self-consciously defined and proclaimed democracy. This requires a broadly gauged approach to the American experience, one that examines: migration and the continuous but changing racial, ethnic, religious, and linguistic diversity of American society; the development of democratic values and institutions as well as the contests over inclusion and exclusion in “American Democracy”; and finally the place and role the United States in more global contexts, both in the past and in the present. It also involves engaging students in close analysis of the key texts and documents of the American experience.

Ethics, Morality, and Religion (3 credits)

Societies and the variously constituted groups and institutions within them draw distinctions between right and wrong, good and evil, virtue and vice; individuals within social groups face choices in deciding how and what to believe, what to do, and how to live. By examining individual and social values involved in moral deliberation and the varied sources from which groups and individuals derive their ideas of ethics and morality, students learn to understand and appreciate ethical issues and express and defend moral choices in an informed and thoughtful way. By exploring different accounts of values, different methods of defending value judgments, or different procedures for settling conflicts, students are encouraged to think about their own values more critically and to appreciate those of others. The examination of issues concerning ethics, morality, and religion may derive from historical sources, literature and the arts, or from contemporary cultures and societies, and should enable students to reflect upon the ethical and moral challenges they will face as individuals, as members of various social groups, and as citizens.

Suggested Models for Areas of Knowledge Curricular Innovation and Development:

Throughout its work, the Task Force was particularly struck by the many good ideas that our colleagues put forth in the Working Groups, at various forums, and in communications sent directly to the Task Force for courses and educational strategies and mechanisms that will provide our students with the general education necessary to prepare them for the contemporary world. It quickly became clear to the Task Force that it was not necessary and, perhaps, even desirable, that the College adopt a single, uniform strategy for how students might go about satisfying their area of knowledge requirements. Rather, the Task Force believes that offering our students a variety of pathways by which to fulfill these requirements would enrich greatly not only their general education but their overall education at Queens College as well.

We put forth the following models, not as formal recommendations, but as suggestions and guides that might be of value to the faculty as over the next several years we go about constructing and implementing a new general education curriculum for the College.

1. Queens College General Education Courses

These courses would be designed to fulfill one or more of the area of knowledge requirements. They would not be departmentally based, but would have open, generic titles (either broadly thematic or categorical), enabling them to be taught by a variety of faculty from within a single department and/or from a variety of disciplines and divisions who would be equipped to and interested in teaching the course. In a fashion analogous to how multiple section departmental courses are currently taught, these courses could be taught in multiple sections with different instructors utilizing different materials and topics. It would be important (and highly beneficial to both faculty and students) that the pool of faculty for whom the course will be part of their regular teaching repertoire meet periodically as a common instructional staff to share ideas, materials, and strategies for achieving the overall goals of the course as well as work out ways to participate as guest instructors in each other's courses.

Examples: Time and Memory

Health and Disease

Literature and the Arts

Ethics and Science

Cities

Emigration and Immigration

Global Change

War and Peace

2. Team Taught Courses

(All the examples above are well suited for team-teaching strategies.) Although it is to be expected that a certain number of area of knowledge courses would be under the direction of a single instructor, it would be highly desirable whenever possible to develop jointly or team taught general education courses at both the foundations and the upper-division integration and synthesis levels. It is often argued that jointly or team-taught courses are too expensive, a luxury that only well-endowed private colleges and universities can afford. This is not necessarily the case. Here are three possible models for joint and team teaching that are budgetarily feasible for a public institution like Queens College.

- a) Paired sections, involving instructors from two disciplines, in which each instructor treats the course topic from the perspective of his or her discipline. In this model, the particular course could be given twice in a single semester,

taught at the same time but in different classrooms. There are a number of ways instructors might arrange the teaching in the two sections: in one model, each instructor might offer the same “half-course” twice in the two different sections, for section A in the first half of the semester, then for section B in the second half, and vice versa for the other instructor.

b) A large section (60-90 students) with two or more instructors working with the same material. The course could be conducted in two formats: lecture/forum sessions at which the instructors would present material to the whole group, and smaller group discussion sections conducted by each of the instructors. (This model obviously allows for various other ways of allocating faculty time.)

c) A large section under the direction of a single faculty member, but enlisting faculty members with various relevant expertises. In addition, in this model, some 2nd year Grad Center fellows could be used to staff the breakout discussion sections. (Three such sections, meeting weekly, would be the equivalent of one a semester course.)

3. Clusters of Two or More Related and Coordinated Courses.

Such clusters would fulfill (at either level) one or more area of knowledge requirements or parts of several such requirements. There could be several variants of this model: they could be constructed from specific general education courses, from a combination of general education and departmental courses, or from related courses from two or more departments. The central requirement for such clusters would be that they be intellectually coherent and explicitly constructed so as to meet the educational goals of the particular areas of knowledge they are designed to fulfill. Some examples:

- a) One variant might involve constructing a completely integrated semester in which four courses that address a single broad theme or topic, such as New York City, or The Nature of Change, or Evolution and Revolution in Societal and Technological Change, might satisfy three or four area of knowledge requirements.
- b) Linked general education courses
- c) Linked departmental and general education courses, in which the linkage enables the cluster to fulfill more than one area of knowledge requirement.

4. Connected **Sequences** of Related Courses, Taken over Two to Three Semesters.

Though similar to the model of simultaneously taken pairs or clusters of courses, this variant could involve constructing coherent, intellectually developmental pathways. In one variant, sequences could be built from a combination of foundations general

education courses, directly connected, departmentally based courses, and upper-division general education courses. Another variant might combine the acquisition of needed prerequisites and tools for more advanced study with cross- or extra-departmental courses. Such a sequence, for example, might combine the requisite science with general education or courses that deal with science public policy, the ethics of scientific developments, such as stem-cell research or the human genome, or with the organization and conduct of scientific research. Another example might be a sequence that would involve taking language courses, beyond the satisfaction of the Queens College foreign language requirement, that would be linked to courses that would use materials in that language.

Appendix IV: Areas of Knowledge: Upper-Division General Education – Integration and Synthesis

At the upper-division level, general education courses that cross various areas of knowledge will enable students to draw on a broad range of knowledge and skills acquired throughout their undergraduate training. These courses will present opportunities for students to integrate general education in a broad, cross-disciplinary way and to demonstrate their mastery of the core critical abilities. Building on the foundation of faculty research, the life and work experiences of alumni, as well as initiatives of community organizations, upper-division integration and synthesis courses will allow students to integrate a Queens College liberal arts education into their lives as active citizens of the nation and world.

The integration and synthesis courses are designed to offer upper-level students unique opportunities to probe deeper into cultural, philosophical, scientific, artistic, political, and other issues. To this end, such courses will introduce students to a significant subject, problem, or activity that will broaden their horizons and deepen their understanding of the nation and world. Such courses are intended to provide a means to sharpen students' critical thinking, as well as their analytical and communication skills. Second, students learn to put different areas of knowledge and experiences together and draw connections across domains of knowledge. Third, these courses enhance students' understanding of their own location in space and time. Fourth, they present an opportunity for students to experience significant intellectual challenges and satisfactions in their junior and senior years. Fifth, they serve as a link between academic learning and practical experience that may be attractive to prospective employers. Sixth, they facilitate the integration of curricula content across disciplines. Finally, they foster a sense of self-actualization, empowerment, and citizenry among students.

Much of the General Education Task Force's thinking concerning the upper-division general education integration and synthesis requirement was influenced by the Working Group on An Integrative Capstone Experience. The Task Force therefore recommends that one of these upper-division courses be taken in a student's final semester to provide a general education capstone to a Queens College education.

Criteria

The following four broad criteria will be used to evaluate upper-division general education courses, including existing courses. Some or all of the criteria may be determined to be necessary. Suggested criteria include:

1. Course content that intentionally crosses the areas of knowledge as defined in this report;
2. Course content appropriate for non-majors, although potentially also appropriate for majors within the department;
3. Understanding New York City and the world, including understanding of one's role in the greater society and the world (options involve both the school community and the greater community outside school);
4. Well-roundedness (this would include efforts to expose students to areas of study with which they have little or no previous familiarity);
5. Personal growth and fulfillment (to enable students to develop the tools necessary to reach their full potential and understanding of themselves, including their strengths and interests, that will help them lead fuller and richer lives); and
6. Career transition, including experiences that would enhance students' movement from student to professional life. (Experiences would include mentoring, internships, networking, training, and/or seminars.)

Models of Upper-Division Courses

Departments and faculty are encouraged to construct or adapt courses to provide an appropriate general education experience that crosses areas of knowledge. In the process, the Task Force recommends that traditional lecture formats be supplanted with course pedagogies that encourage students to actively make connections and contrasts in their own construction of knowledge. The following models are offered to encourage and inspire such new courses that would fulfill the upper-division general education requirements.

1. Colloquium Series: A semester of large colloquia by major speakers on broad, interdisciplinary topics. These topics may or may not be thematically related. Throughout the semester, preparatory and follow-up sections with small numbers of students would enable small groups to work carefully with the topic at hand. Sections may or may not be grounded in a department. As an alternative, the groups could work in 3- to 4-week short courses with different faculty teaching from different disciplinary perspectives. The culminating experiences may be for each cycle (colloquium); there would not necessarily be a final paper to summarize the semester as a whole. A coordinator would plan speakers and coordinate with faculty.

Example: Speakers from the biological sciences, philosophy, literature, and law present different perspectives on the central theme of the Human Genome Project.

2. Learning Community: Based on the model established by the Freshman Year Initiative (FYI), a group of students would join a community that enrolls in two courses together. These may be regularly offered courses within different disciplines in which the subject matter allows for linkages between the courses. The faculty would negotiate beforehand the ways in which the linkages could be emphasized. Students would work collectively on a group project as partial fulfillment of each of the course's requirements, and faculty would work together during the semester to assure coordination of assignments and oversight.

Example: Courses in music history (or art history) and philosophy focus on the ways in which music and philosophy impact one another. Such a pairing incorporates attending concerts, lectures, going to museums, or other activities involving students within Queens and the greater NYC community.

3. Community/Professional Service: A model which entails recruitment of alumni, corporations, government agencies, research facilities, artistic organizations and cultural organizations with ties to the New York City community to provide the opportunity for seniors to bring their accumulated skills and experience to bear on concrete issues or projects. This may be an intensive internship, mentoring program, volunteerism, or perhaps even participation in approved retreats or outreach programs/seminars. A separate administrative unit drawing on faculty from different areas would oversee this work to identify particularly germane issues and suggest specific sites and potential support groups.

Example: In their final semester, five graduating seniors work with a faculty member on a project regarding revenue models on the Internet. Each student is given a separate area to explore, such as e-commerce, the effectiveness of the clicks-and-bricks (on- and off-line) economic model, single product (pets.com) vs. multiple product (amazon.com) websites, etc. Faculty and students meet once a week to review their progress. A seminar at the beginning of the semester strengthens the students' information literacy competencies.

4. Individual Research Project: A student would develop a proposal for a senior-year research project involving one or more faculty, either within a discipline or from more than one. Many departments currently have this option available or even require it within the major. The key point here, as noted above, would be the nature of the project itself. How does it bring together what the student has learned during her/his undergraduate liberal arts career? The thesis would be about more than just the student's discipline – it would put the discipline in the broader context of a liberal arts education.

Example: Topics combining art and the social sciences include the art market in Bruges in the fifteenth century; building a Gothic cathedral; European reception of American art before World War I; American reception of art of the Americas during the early years of the Republic; art heritage threatened in geopolitical conflicts.

5. Senior Seminar: This would entail a student working within a group dedicated to a single research project with one or more faculty as directors. Again, this is a model already in place in several disciplines at the College, and it would be the nature of the project itself that determines whether the course would qualify as a Capstone.

Example: Faculty-mentored research projects; software/hardware development practicum.

Appendix V: Working Group Participants

The Entry Experience

<i>Alica Alvero</i>	<i>Psychology</i>
<i>Kevin Birth</i>	<i>Anthropology</i>
<i>Clare Carroll</i>	<i>Comparative Literature</i>
<i>Ann Davison</i>	<i>English/FYI</i>
<i>Alexandra deLuise</i>	<i>Library</i>
<i>Duncan Faherty</i>	<i>English</i>
<i>Ruth Frisz</i>	<i>Student Personnel</i>
<i>Arthur Goodman</i>	<i>Mathematics</i>
<i>Elizabeth McCaffrey</i>	<i>Counseling & Advisement</i>
<i>Lillian Moncado-Davison</i>	<i>Secondary Education & Youth Services</i>
<i>Janice Peritz</i>	<i>English</i>
<i>Hensel Rodas</i>	<i>LEAP</i>
<i>Manuel Sanudo</i>	<i>Library</i>
<i>Barbara Simerka</i>	<i>Hispanic Languages and Literatures</i>
<i>Lauren Seiler</i>	<i>Sociology</i>
<i>Patrick Yu</i>	<i>LEAP</i>

Coordinators

<i>Martin Braun</i>	<i>Mathematics</i>
<i>Raymond Erickson</i>	<i>Music</i>

Areas of Knowledge

<i>Ammiel Alcalay</i>	<i>Classical, Mid Eastern & Asian Langs. & Cultures</i>
<i>Joel Allen</i>	<i>History</i>
<i>Michael Barry</i>	<i>Biology</i>
<i>Glenn Burger</i>	<i>English</i>
<i>Harry Gafney</i>	<i>Chemistry</i>
<i>Harvey Gram</i>	<i>Economics</i>
<i>Stephen Grover</i>	<i>Philosophy</i>
<i>Hermann Haller</i>	<i>European Languages and Literatures</i>
<i>Murphy Halliburton</i>	<i>Anthropology</i>
<i>Elizabeth Lowe</i>	<i>Family, Nutrition & Exercise Sciences</i>
<i>Charles Martin</i>	<i>Comparative Literature</i>
<i>Jeff Maskovsky</i>	<i>Urban Studies</i>
<i>Michael Mirkin</i>	<i>Chemistry</i>
<i>Jeff Nichols</i>	<i>Music</i>
<i>Alex Reichl</i>	<i>Political Science</i>
<i>Sara Stinson</i>	<i>Anthropology</i>
<i>Tom Strekas</i>	<i>Dean, Math & Natural Sciences/Chemistry</i>
<i>Rolf Swensen</i>	<i>Library</i>
<i>Robert Vago</i>	<i>Linguistics & Communication Disorders</i>

Coordinators

<i>June Bobb</i>	<i>Africana Studies</i>
<i>Allan Ludman</i>	<i>Earth and Environmental Sciences</i>
<i>Robin Rogers-Dillon</i>	<i>Sociology</i>

Integrative Capstone Experience

<i>Mara Einstein</i>	<i>Media Studies</i>
<i>Ira Hauptman</i>	<i>Drama</i>
<i>David Leventhal</i>	<i>Philosophy/BALA</i>
<i>Richard McCoy</i>	<i>English</i>
<i>James Moore</i>	<i>Anthropology</i>
<i>Jennifer Oates</i>	<i>Library</i>
<i>Suzanna Simor</i>	<i>Library</i>
<i>Joyce Tang</i>	<i>Sociology</i>
<i>Miriam Thompson</i>	<i>LEAP</i>

Coordinators

<i>Fred Purnell</i>	<i>Philosophy/Earth and Environmental Sciences</i>
<i>Mary Bushnell-Greiner</i>	<i>Elementary & Early Childhood Education</i>

Suffusing Critical Abilities

<i>Sharon Bonk</i>	<i>Library</i>
<i>Alyson Cole</i>	<i>Political Science</i>
<i>Susan Croll</i>	<i>Psychology</i>
<i>Hugh English</i>	<i>English</i>
<i>Ellen Hogarty</i>	<i>LEAP</i>
<i>Janine Graziano-King</i>	<i>Linguistics & Communication Disorders</i>
<i>Steven Kruger</i>	<i>English</i>
<i>Nancy Macomber</i>	<i>Library</i>
<i>Caroline Rupprecht</i>	<i>Comparative Literature</i>
<i>Dean Savage</i>	<i>Sociology</i>
<i>Steven Schwarz</i>	<i>Physics</i>
<i>Michael Toner</i>	<i>Family, Nutrition & Exercise Sciences</i>
<i>Jose M. Martinez Torrejon</i>	<i>Hispanic Languages & Literatures</i>
<i>Nathalis Wamba</i>	<i>LEAP</i>
<i>Zhigang Xiang</i>	<i>Computer Science</i>

Coordinators

<i>Ali Ahmed</i>	<i>Comparative Literature</i>
<i>Donald Scott</i>	<i>Dean, Social Sciences/History</i>