



**University of Kentucky
University Studies Program
Self Study Report**

Submitted by the University Self Study Committee

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Introduction

The review process for the University Studies Program was an exercise in extremes. Individuals interviewed about the program expressed opinions that started with the notion that the USP should stay exactly as it is to the idea that it should be completely done away with and a new program be developed. At times it was difficult to separate self or departmental interests from impartial views of general education. There was no clear mandate from those contacted about the University Studies Program. To some, it is fine the way it is; to others, it should be scrapped and a totally new program be put in place. Thus, at the end of this report, there are no recommendations about what the liberal arts educational program at the University of Kentucky should look like. Instead, the reviewers have provided a historical context of USP, provided models of general education programs at research institutions, identified issues that must be discussed in a campus-wide conversation, and offered recommendations about the external review process. The campus community will need to determine the best direction for general education at the University of Kentucky.

Statement of University Requirements & Guidelines for the Self-Study

The USP Self-Study Committee relied on a draft form of AR II-1.0-6. A copy of this administrative regulation may be found in Appendix A.

Organization of the Study

The Associate Provost for Undergraduate Education, Dr. Philip Kraemer, provided historical documents to the committee for review. The committee met to determine the format of the self-study and the methods for gathering information. One of the first tasks was to conduct a study of the general education requirements at the institutions listed as the University of Kentucky benchmark schools. In addition, a snapshot survey was developed and administered. The committee conducted a series of interviews with members of the campus community who had a thorough knowledge of and interest in the University Studies Program. Finally, the committee spent considerable time reviewing our own historical documents and existing data about the University Studies Program. Each of these items are summarized in the review document.

Mission Statement

The University of Kentucky is a public, research-extensive, land grant university dedicated to enriching people's lives through excellence in teaching, research, and service. The University of Kentucky:

- Facilitates learning, informed by scholarship and research.
- Expands knowledge through research, scholarship and creative activity.
- Serves a global community by disseminating, sharing and applying knowledge.

The University, as the flagship institution, plays a critical leadership role for the Commonwealth by promoting human and economic development that improves lives within Kentucky's borders and beyond. The University models a diverse community characterized by fairness and social justice.

University of Kentucky Strategic Plan

Goal I: Reach for National Prominence

Objectives

1. The University will increase the prominence of faculty scholarship. Our faculty defines the academic enterprise.
2. The University will enhance the excellence and sustainability of the clinical enterprise.
3. The University will increase its resources in order to offer high-quality instructional, research and service programs.
4. The University will strengthen the link between funding decisions, plans and results.
5. The University will streamline its business and information technology services.

Goal II: Attract and Graduate Outstanding Students

Objectives

1. The University will admit and enroll an increasingly higher caliber of student.
2. The University will collaborate with Kentucky's other postsecondary education institutions to facilitate success for transfer students.
3. The University will engage students in rigorous educational programs and provide an environment conducive to success.

Goal III: Attract, Develop and Retain a Distinguished Faculty

Objectives

1. The University will offer competitive salaries and benefits to attract and retain distinguished faculty.
2. The University will offer competitive salaries and benefits to attract and retain superior staff.
3. The University will institute policies to attract and retain a distinguished faculty.
4. The University will strengthen support to faculty and staff.
5. The University will increase the recruitment and support of high-profile faculty capable of conducting influential scholarship and leading major scholarly initiatives.

Goal IV: Discover, Share and Apply New Knowledge

Objectives

1. The University will aggressively pursue targeted strategies to increase extramural research funding.
2. The University will provide the facilities and equipment necessary to enhance research capacity.
3. The University will cultivate the success of diverse efforts in scholarly achievement and research.

4. The University will attract and enroll highly qualified doctoral students and postdoctoral scholars.

Goal V: Nurture Diversity of Thought, Culture, Gender and Ethnicity

Objectives

1. The University will improve the climate for diversity.
2. The University will create a diverse workplace and learning community.
3. The University will cultivate the success of diverse efforts in scholarly achievement and research.
4. The University will attract and enroll highly qualified doctoral students and postdoctoral scholars.

Goal VI: Elevate the Quality of Life for Kentuckians

Objectives

1. The University will engage its people and resources in a renewed commitment to outreach.
2. The University will lead in the delivery of specialty care in select clinical areas.
3. The University will accelerate industry-funded research and partnerships, technology transfer, and business development to advance Kentucky's economy
4. The University will expand utilization of its cooperative extension network to improve the quality of life for all Kentuckians.

National Voices

A discussion of general education at research institutions is not complete without a review of documents that capture the national conversation about liberal arts education. Two documents must be considered as a context for the review of the University Studies Program at UK: *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* (The Boyer Commission on Educating Undergraduates in the Research University, 1988) and *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (National Panel Report, Association of American Colleges and Universities, 2002). A third document from later work of the AAC&U Greater Expectations pane, titled, *Taking Responsibility for the Quality of the Baccalaureate Degree* (American Association of American Colleges & Universities, 2004), focused on accreditation and assessment. A brief summary of each is provided below.

Reinventing Undergraduate Education: A Blueprint for America's Research Universities

The Boyer report deals specifically with undergraduate education at research institutions. It is important that UK look to this report rather than other documents that describe educational experiences at small, private liberal arts institutions. The Boyer Commission details the special characteristics of research institutions and underlines the need to capitalize on the research mission by offering undergraduates early exposure to research. This exposure allows institutions (like UK) to remain true to the research mission by bringing that mission into the classroom. The research institution must commit itself to providing students the following:

- “1. Expectation of and opportunity for work with talented senior researchers to help and guide the student’s efforts.
2. Access to first class facilities in which to pursue research – laboratories, libraries, studios, computer systems, and concert halls.
3. Many options among fields of study and directions to move within those fields, including areas and choices not found in other kinds of institutions.
4. Opportunities to interact with people of backgrounds, cultures, and experiences different from the student’s own and with pursuers of knowledge at early level of accomplishment, from freshmen students to senior research faculty.” (Boyer Commission, pp. 12-13)

The Commission makes ten recommendations that require redirecting resources to undergraduate education to capitalize on an institution’s strength in research. These recommendations are outlined below:

1. Make research-based learning the standard. This requires involving undergraduates in research at the outset.
2. Develop a freshman year that is inquiry-based, through seminar-style learning, block scheduling and remedial education provided before admission to the institution.
3. Build on the foundation of the freshman experience.
4. Create mechanisms for increased interdisciplinary education.
5. Link communication skills and course work by requiring communication skills to be integrated into every course.
6. Develop creative strategies for using information technology.
7. Build a capstone experience into the final semester.
8. Educate graduate students as apprentice teachers.
9. Revise the faculty reward system.
10. Cultivate a sense of community where diversity is viewed as an asset.

Greater Expectations: A New Vision for Learning as a Nation Goes to College

Greater Expectations analyzes the challenges facing higher education in the twenty-first century. The authors of the report call for “dramatic reorganization of undergraduate education” (p. vii) and call for reform that focuses on learning needed to be successful in today’s world. Institutions of higher education are called upon to help students become “intentional learners” that are:

- “Empowered through the mastery of intellectual and practical skills
- Informed by knowledge about the natural and social worlds and about forms of inquiry basic to these studies
- Responsible for their personal actions and for civic values.” (p. xi).

The panel outlines the necessary steps for formation of the New Academy that focuses on a liberal education. The New Academy includes a rigorous, practical liberal education for all students with shared responsibility among students, faculty, the educational system, the public, and policy makers.

Taking Responsibility for the Quality of the Baccalaureate Degree

The AAC&U Panel on Accreditation and Assessment details the characteristics of an effective general education program. These include a program that is:

- “is purposeful
- is coherent
- is engaging
- is rigorous
- extends throughout all four years
- has good leadership from the faculty and administration
- is a corporate responsibility of the faculty
- enjoys sufficient resources to achieve its purposes” (AAC&U, 2004, p. 9).

The report summarizes a set of recommendations for “faculty work”:

1. “Collectively, an institution’s faculty should discuss, agree on, and make transparent the broad outcomes of undergraduate education.
2. The faculty at a college or university should conduct an ‘audit’ to see how well and how intentionally the institution’s curriculum advances the outcomes.
3. Academic departments should conduct a similar audit to examine departmental outcomes and to gauge the coherence of major programs.
4. Faculty members from across the institution should regularly share with one another their course and program purposes, as well as their classroom practices.
5. The faculty should examine its teaching practice, both individually and collectively, to see whether and how well they help students develop the desired intellectual and practical skills.
6. The faculty, collectively and individually, should learn about, design, and employ assessments that provide direct evidence of cumulative student learning and then use the results to improve teaching and learning” (AAC&U, 2004, pp. 25-26).

History of the University Studies Program

The current USP requirements began in the deliberations of a 1982 Committee on General Education, chaired by Professor John Stephenson. The committee studied national trends, evaluated current requirements, and in 1984, filed its working report, which highlighted six themes:

1. The General Education Program at U.K. needed “greater coherence.”
2. “All students” needed a greater “awareness both of their own cultural heritage and of non-western traditions.”
3. Students needed to practice “integrative thinking across disciplinary lines.”
4. Students needed “ongoing development of writing skills.”
5. The university needed to place “a high value on general education within university priorities.”
6. There needed to be “ongoing oversight of the General Education Program.”

A Middle Course?

Soon after this report was filed, the Committee on General Education resumed work, this time chaired by Lou Swift, with the purpose of recommending specific changes. The 1984-85 committee found its work difficult, largely because of an existing program characterized as “the product of about two decades of development, some of it through planned change and some through haphazard accretion, deletion, or revision.” As Lou Swift summarized in his presentation to the Senate on April 8, 1985, “One of the persistent complaints that surfaced about our present system was that it contained too many courses and that it lacked coherence. In short it was not so much a program as a collage.” The general education requirements included two semesters of English. In addition, students had to complete five areas of study selected from eight possible areas. These areas were: 1) Mathematics-Philosophy; 2) Physical Sciences; 3) Biological Sciences; 4) Foreign Languages; 5) Humanities, Literature, and the Arts; 6) History; 7) Social Sciences; and 8) Behavioral Sciences (UK Bulletin, 1984-85).

While the 1984-1985 Committee on General Education discussed at length substantial structural changes, including the creation of a College of General Education,¹ the members ultimately arrived at a “middle course between retaining the present system and suggesting a revision that would radically orient the institution’s resources to general education.”² While it retained a “standard-distribution” or “menu” approach, members of the committee felt they had achieved some focus: “We believe that the proposed University Studies does have coherence. It is based on a set of organizing principles or criteria which we think are essential to a sound undergraduate education” (Senate, April 8, 1985). The Committee estimated that their proposal would require \$400,000 to implement. They felt confident that departments would offer the new set of requirements because of an enrollment-driven funding plan that offered financial incentives earmarked to the number of students in USP classes.

This crafted “middle course” was not altogether the plan that emerged from the University Senate. In his April 8th address to the Senate, Swift warned against the danger of picking at pieces of the proposal: “We ask you to treat the recommendations as a seamless garment to be accepted or rejected with only minor changes. Tearing a piece out here or attaching another piece there can only weaken or destroy the threads that run through the proposal and the result may be even less valuable than the present system. Going back to the drawing table is a thought none of the committee relish, but it would be better to do that than to amend the proposal from the floor.” The proposal circulated after the April 8th meeting and by the time the proposal was next discussed on October 14th, 1985, the Senate Council had six amendments for Senate members to consider. Five of those amendments failed; one was adopted by a margin of two votes at the November 11, 1985 meeting. On February 3, 1986, the whole proposal came to the Senate for a vote. Despite attempts to present a whole, coherent, unified curriculum, at least fifteen amendments to the proposal were raised and many adopted on the Senate floor, producing a compromised curriculum that several in our interviews described as “neither fish nor fowl.”

A significant legacy of the 1984-1985 Committee on General Education was also the change in the language used to describe the requirements. The Committee felt that “the term ‘general

¹ Information from Self-Study Committee Interviews.

² Details can be found in the Final Report, submitted by the Committee on General Education (n.d.; 1985).

education' [had] become a pejorative or, at least, an inadequate term for designating an important dimension of the University's responsibility" and recommended the current term, University Studies, as "a better title for conveying the idea that general education is an integral part of all students' academic experience and that the program, calling as it does upon the resources of more than one college or academic unit, represents a fundamental commitment of the entire institution." This name change, while significant, did not ultimately lead to the desired outcome: "a fundamental commitment of the entire institution." Most USP course hours continued to originate from the College of Arts and Sciences, a situation mirrored at state-funded research I universities nationwide.

Changes

Since 2002, there have been at least three substantial changes to the USP curriculum: (1) the elimination of the cross-disciplinary requirement, which was suffering from arbitrary pairings and sequencing problems, and interrupting progress to degree; (2) a change in the writing requirement from a first-year only requirement to a combined writing-across-the curriculum/writing-in-the-disciplines model, and (3) the suspension of the oral communications requirement because of inadequate resources. The problem of resources for the oral communications was long standing: In 1987-1988, alternate ways were established to fulfill the requirement through work in other colleges. (Extending the requirement into other disciplines had potential—and thus ramifications—for other USP courses as well, for example, statistics.) While the alternative paths provided a desired--and necessary--flexibility, this proved a solution never embraced by those who felt that disciplinary expertise was crucial. Because there was no campus-wide assessment in place, there was little data to support either claim and, instead, a rather good deal of disciplinary passion and rancor. This dilemma was not solved; instead, finally the increasing size of the entering classes and the much-reduced university budget finally led to the current, temporary suspension of the oral communications requirement.

Freshman Seminars

It's worth noting, particular in light of the subsequent history discussed below, the original proposal made for the Humanities component of USP. The Committee recommended that students have three different options for fulfilling the requirement: a two-semester survey; two courses in a single discipline; or two *freshman seminars*, an option outlined at some length in an appendix. (Freshman humanities seminars were on the books; however, they weren't "a requirement.")³ These seminars were to be "organized around a theme, a principle, or a set of issues established beforehand by the individual instructor," taught by "experienced faculty," and were to focus on "some of the major intellectual, social, political, ethical, and aesthetic traditions and institutions of the Western world from Classical times to the twentieth century." While the USP proposal did set out to create an integrative experience within the Humanities, there was no goal to expand the content beyond the Humanities. The rationale for the freshman seminars is likewise interesting: "One common criticism of education at large universities is that students

³ At this point in the institution's history, these freshman seminars in the Humanities were apparently not working particularly well: the same faculty members taught the course semester after semester, there weren't new topics introduced, students were disengaged (or in alternate version, unprepared to do this kind of inquiry). Minutes of the Senate, April 8, 1985.

frequently do not have an opportunity to participate in a small class with experienced faculty until they become juniors or seniors,” a criticism echoed and amplified over a decade later in the nationally influential Boyer Commission (Carnegie) report. While the freshman seminars recommended by UK’s Committee on General Education were limited to the Humanities, this idea of a small first-year seminar, taught by experienced faculty is one that recurs.

For example, in 1993, the new Dean of Arts and Sciences, Rick Edwards, began experimenting with the Modern Studies Curriculum (MSC), an alternative to the standard distribution or “‘big menu’ approach common to most Research I institutions”.⁴ According to Dean Edwards (1995, p. 1):

Our aim in developing an intellectually integrated curriculum goes beyond informing students of the differences among disciplines; rather, we intend to display how one discipline’s study of some phenomenon may be enriched by the perspectives of other disciplines, including perhaps disciplines seemingly remote from the first.

As was recommended by the earlier Committee on General Education, Dean Edwards advocated “small classes to reduce any sense of undergraduate isolation and lack of purpose that many undergraduates feel in their initial two years,” and added words to address new statewide concerns about retention and graduation rates. The most salient feature, however, was an emphasis on “participatory learning with discussions, seminars, workshops, and a great deal of written and oral communication, both formal and informal.” The MSC attracted students to its classes by offering “The Advantages of a Small College Within a Large University,” again, an idea that three years later in 1998 would resonate through the nationally influential Boyer Commission (Carnegie) Report. Although the report by UK’s Committee on General Education, chaired by Lou Swift, characterized its members as “neither pioneers nor last in line,” the MSC pilot signaled a moment in which U.K. was on trend, perhaps ahead of trend in offering an integrative freshman seminar. The students who participated in the MSC integrative experience completed several USP requirements, including writing, oral communications, cross-cultural studies, cross-disciplinary studies, as well as some of the hours required in the natural sciences, social sciences, and humanities.

MSC highlighted the possibilities of an integrative approach and worked its difficulties out on a relatively small scale with students who self-selected the program. However, the MSC pilot was not extended. It was deemed too time intensive (it was a 5-hour course) and too expensive to continue as it required a faculty member and a teaching assistant for every 25 students (it’s unclear whether savings from decreased enrollments in first-year English and in other USP courses were figured in). It also suffered because early data on retention was inconclusive; reports done after six years showed favorable retention numbers: 51% of the 1993 MSC cohort graduated in four years as opposed to 19% of the regular 1993 class; 87% of the 1993 MSC cohort graduated at the end of six years, compared to 51%.⁵ Finally, MSC also unintentionally shed light on another little discussed feature of USP: its fragmenting (decentralized) rather than

⁴ Information about Modern Studies is drawn from Jonathan M. Golding and Philipp J. Kraemer’s “Integrating Psychology into a Multidisciplinary/Multicultural Undergraduate Program at a Research I University,” *Teaching of Psychology* 27.3 (Aug 2000): 169-172.

⁵ Expanding Horizons Grant Proposal

unifying experience for students across campus. While USP had been intended as a curriculum common to all U.K. students, the MSC pilot made clear, if only through relief, that individual colleges were, in effect, carving their own paths through USP—paths in part dictated by accrediting bodies—with the effect of creating specific and defined disciplinary paths rather than the dazzling (or, depending on one’s point of view, bewildering) variety and breadth of choices suggested by the bulletin.

MSC was perceived, at least by some, as a program that “fit” the College of Arts and Sciences, rather than as a program that could suit the whole university, this despite the fact that it drew from the whole campus population. Still, even given these reservations, many faculty deemed MSC a successful pilot, one that has clearly left a powerful legacy. They speak to the successes of the program and to the formative role it played in their development as teachers. Those who participated in the program acknowledge the issues that emerged during the pilot, but argue that these issues were sufficient reason to revise the program, not kill it. Despite the fact that the MSC pilot is almost a decade behind us, its influence continues: Since the MSC pilot, two additional committees have taken up the question of the feasibility of some integrative foundation for USP (one convened by Philip Kraemer, the Dean of Undergraduate Education; the other convened by Dean Groch, peopled by A&S faculty, and chaired by Philip Kraemer). Both of these committees recommended a course similar to the MSC pilot, that is, a curriculum that combines some foundational integrative course or courses with greatly streamlined distributive requirements.

We arrive at a present defined by the push and pull of two movements. We feel the influence of the Boyer Report and Greater Expectations-- efforts which speak to the “fragmentation of the curriculum” and the need for integrative experiences to augment inspiring large lecture courses. Simultaneously, we hear the call for “course redesign projects” that promise to “deliver” instruction “faster, better, and cheaper,” using the always evolving (and more costly) technology for standardized courseware and digital scoring. It is a present changing whether we will have change or not. As many have noted, “preserving the status quo” is no longer really an option. Even should faculty choose not to change a hair on the current USP curriculum’s head, USP is changing and will change because of the increasingly large entering classes and the decreasing size of the faculty, particularly in the Colleges of Arts and Sciences and Communications, which are responsible for the most USP enrollments. Nor are the funding issues restricted to these: most noticeably, the funding formula for USP has been visibly altered with the passage of House Bill I; the university no longer employs the enrollment-driven formula that created and sustained the USP curriculum established by the 1985 proposal (some would argue that this formula did not merely sustain it but rather caused an unhealthy accretion, a swelling of course offerings, a curriculum marked by excess as departments added more and more USP courses in order to attract funding). We also arrive to a present of fragmented efforts, most sharing a common goal. USP is undertaking this self-study and presumably, some recommendations will ensue; the College of Arts and Sciences has produced its self study which announces the charge of “spearheading” USP reform; the chair of the Senate Council has made USP reform one of his top priorities. Whether or not this moment in our institutional history is part of a progressive or regressive narrative largely depends on the degree to which these efforts culminate in a series of weak compromises or in a curriculum that reflects real collaboration and consensus.

Historic documents related to the development of the University Studies Program and its subsequent proposed revision may be found in Appendices. Appendix B provides the Committee on General Education Final Report (1985). In Appendix C, readers will find a 1999 memo from Lou Swift to the Senate Council regarding revisions to USP. In Appendix D, two documents describing Expanding Horizons may be found.

Function of the University Studies Program Committee

The University Studies Committee (USC) is responsible for general governance of USP as outlined by Senate rules (see below). The committee generally meets biweekly during the academic year; although, there are occasions in which it would be beneficial for Committee functions to be available during the summer months. The usual business of the Committee is to perform functions outlined by the senate rules as needed. In addition, the committee has been enlisted to participate or direct initiatives pertinent to its mission. Examples of such initiatives over the past five years include (1) revision of student learning outcomes for each USP requirement; (2) revision of the format used to describe USP in the in University Bulletin; (3) an evaluation of all syllabi for USP courses; (3) initial planning and discussion of a process for assessing USP student learning outcomes; (4) changes in the Writing Requirement; (5) elimination of the Cross Disciplinary Requirement; (6) changes to the natural Science Disciplinary requirement to allow any two courses to satisfy the requirement rather than paired courses only; and (7) suspension of the Oral Communication requirement. All Committee recommendations are forwarded to Senate through the Senate Council. The Associate Provost for Undergraduate Education serves as chair of the Committee, and staff support is provided through that office.

University Senate rules outlining the functions of the USC:

1.4.3.0 University Studies Committee [US: 2/3/86; 4/14/86; 10/12/87; 4/23/01] A

The University Studies Committee shall be composed of sixteen voting members, twelve from the non-LCC/KCTCS faculty, one member from the Lexington Community College, one member from KCTCS, and two undergraduates. It shall be chaired by the Associate Provost for Undergraduate Education who shall not have a vote except in cases of ties.

The faculty members shall be appointed by the Senate Council. The Senate Council shall solicit nominations from the faculty prior to making appointments. The composition of the faculty membership shall parallel that of the Undergraduate Council, with nine members representing the various undergraduate colleges, three members appointed at large, and two I representatives from the faculty of Lexington Community College or KCTCS as described in Rule I - 1.3.3.2. Faculty members shall serve for staggered three- year terms. The non LCC/KCTCS faculty members may not succeed themselves nor may they serve on the Committee again for a period of three years, except for a faculty member who is appointed to fill out a vacant term of one year or less. Members from the LCC/KCTCS are appointed for a three year period and are eligible for reappointment.

The two student members shall be appointed annually by the Senate Council from names recommended by the President of the Student Government Association. The KCTCS member shall be appointed by the Senate Council upon the recommendation

of the Community College Council for a three year period. (US: 10/12/87)

B The University Studies Committee shall exercise the following functions:

1. It shall select all courses which are proposed to fulfill the program requirements.
2. Upon the recommendation of the Associate Provost or on its own initiative, and upon sufficient investigation, it may delete courses (or pairs of courses) from their status of fulfilling the program requirements.
3. It shall review periodically (at least every six years) the teaching and content of all courses selected to fulfill the program requirements. It shall delete courses (or pairs of courses) from the program that no longer seem appropriate to the program and recommend to colleges or departments, through the Associate Provost, such changes as it deems necessary or appropriate.
4. It shall determine the general policies for the teaching and content of the Freshman Seminars.
5. It shall consider and propose methods which will enhance the University Studies Program and assert its centrality to the undergraduate curriculum.
6. Upon the recommendation of the Associate Provost or upon its own initiative, it shall develop and propose changes in the structure of the program or in the requirements necessary to complete it.
7. It shall approve or disapprove recommendations of the Associate Provost for temporary waivers of or temporary substitutions for program requirements for particular categories of students.
8. It shall set policies for the granting of credit to transfer students for courses taken which are equivalent to those in the program and it shall communicate these policies to all undergraduate colleges on campus.
9. The University Studies Committee shall employ the principles and learning objectives approved by the University Senate for evaluating the alternate routes for satisfying the Oral Communication requirement in University Studies [US: 3/10/97]

C Waivers: All waivers of or substitutions for program requirements for particular categories of students, if approved by the Committee, shall be submitted to the Senate Council for its approval. The Senate Council's approval of temporary waivers of or substitutions for program requirements for particular categories of students shall be final. [US: 10/11/99]

Current University Studies Program

The current University Studies Programs consists of ten requirements that are described below.

Mathematics Requirement

The mathematics requirement can be fulfilled in the following ways:

- A score of 26 or above on the mathematics section of the ACT, or

- a score of 540 or above on the mathematics section of the SAT, bypass examination, or MA 109 College Algebra, MA 110 Analytic Geometry and Trigonometry, or any calculus course.

Foreign Language Requirement

The foreign language requirement can be fulfilled in the following ways:

- Two years of a foreign language in secondary school as indicated on transcripts, or Any two-semester sequence (at least six hours) in a single foreign language at the college level.

Logic-Inference Requirement

The logic-inference can be fulfilled in the following ways:

- Any calculus course, or
- STA 200 Statistics: A Force in Human Judgment (Prereq: MA 109), PLUS
PHI 120 Introductory Logic, or PHI 320 Symbolic Logic I
Note: Students must satisfy the math requirement before enrolling in STA 200.

Written Communication Requirement

The written communication requirement was revised in 2003-2004 and can be fulfilled in the following ways:

- First Year Writing Requirement (4 credit hours). Honors Program students satisfy the First Year Writing Requirement through that curriculum.
 1. ENG 104 Writing: An Accelerated Foundational Course OR
 2. Score of 32 or above on the English component of the ACT; score of 700 or above on the SAT I Verbal; or score of 4 or 5 on the AP English Language Exam

The Graduation Writing Requirement is also needed but is not part of the University Studies Program.

Oral Communication Requirement

The oral communication requirement is described below. However, this requirement has been waived for the next three years beginning with the incoming class of first year students (Fall, 2004).

- One of the following courses
COM 181 Basic Public Speaking;
COM 252 Introduction to Interpersonal Communication
COM 281 Communication in Small Groups; COM 287 Persuasive Speaking or
TA 225 Vocal Production for the Stage I
- Bypass examination, OR
- Alternate sequence in the student's major department

Natural Science Requirement

The natural science requirement must be fulfilled by completion of six credits in one natural science discipline.

- 6 credits in approved courses in Biology, Chemistry, Geography, Geology, Physics and Astronomy, or Physics and Geology

Social Science Requirement

The social science requirement may be fulfilled by completion of 2, 3-credit courses in any social sciences.

- 6 credits in approved courses in Economics, Women's Studies, Psychology, Anthropology, Family Studies, Communications, Political Science, Geography, and Sociology (two courses in separate disciplines)

Humanities Requirement

The humanities requirement can be fulfilled in the following ways:

- 6 credits in approved courses in English, Philosophy, Architecture, Art History, History, Classics, French, German, Spanish, Interior Design, Russian and Eastern Studies, Music, Women's Studies, or Theater

Cross-Cultural Requirement

The cross-cultural requirement can be fulfilled in the following ways:

- 1 course in approved courses in African American Studies, Art History, Anthropology, English, Geography, History, French, Japanese Studies, Family Studies, Latin American Studies, Music, Philosophy, Political Science, Russian and Eastern Studies, Music, Spanish, Sociology, Educational Policy Studies and Evaluation, or Merchandising, Apparel, and Textiles

Electives

Students must complete six hours of electives with three of the six hours outside the student's major.

Twenty First Century Studies: Implications for the University Studies Program

In early October 2004, Dr. Ernest Yanarella, Chair of the University Senate met with President Todd to discuss the Senate Council's agenda for the year. During those discussions, Dr. Yanarella mentioned the need to preserve the liberal arts core while dealing with the impact of increased enrollment on undergraduate program. The President requested a proposal and detailed budget to deal with this issue. Dr. Yanarella developed the materials for "Twenty-First Century Studies", a reinvention of general education at UK. In the proposal, Dr. Yanarella discussed the need for a leaner, better integrated model. As part of the "reinvention" of a liberal education program at UK, all colleges would contribute and the campus would seek input from institutions that have successful liberal undergraduate core programs. The end result of the presentation was an approved budget to deal with the liberal arts educational program at UK. So this effort could be coordinated with the self-study process occurring simultaneously through the

USP self-study committee, Dr. Mike Nietzel called together the following individuals to discuss how the review of the current program and the vision for liberal arts at UK could be integrated:

Steve Hoch, Dean of Arts & Sciences

Philip Kraemer, Associate Provost for Undergraduate Education

Ernest Yanarella, Chair of the University Senate

The articulated in “Twenty-First Century Studies” will be infused into the external review process for the University Studies Program since both deal with undergraduate general education at the University of Kentucky.

Committee’s View of General Education

To ensure that the review of USP was as free from bias as possible, the committee thought it would be helpful to provide a summary of their views of general education and UK’s USP program prior to and after the review process. Before coming together as a committee, all members had worked on committees that dealt with the University Studies Program in one way or another. For the group, a collective opinion at the outset of the review was that USP was not necessarily meeting its goals regarding general education. All came with the notion that an integrated curriculum (such as Modern Studies or Expanding Horizons) was the best answer for UK. However, as one committee member stated, “As we’ve gone through this discussion, it has become increasingly obvious that we are good at creating that core (witness both Modern Studies and Expanding Horizons), but have been unable to sustain (Modern Studies) or implement (Expanding Horizons) these attractive initiatives due to financial constraints.” Another came away from the review process with a changed perspective that the University Studies Program in its current form is achieving its goals. It is a fair statement to make that if financial constraints were not such a part of daily life at UK, the committee would support an integrated core curriculum. However, because funding is not available to make an integrated core a reality, the current program may be the next best alternative.

Assessment

One of the clearest messages coming out of the entire process of review of the University Studies program was the need for systemic assessment. When asked if the learner outcomes were being met for any one of the major areas in USP, the most common response was, “we just don’t know.” This lack of data made the task of determining recommendations particularly problematic. This is exacerbated by the diverse views about the quality of the USP held by many on campus and the underlying agendas at play. The clear need to develop an assessment program for any form of undergraduate general education at the outset of the plan is detailed in the recommendations section of this report.

The USP Self-Study Committee set out to determine perceptions of the University Studies Program in several ways. The first was to conduct a short, “snapshot” survey to gauge satisfaction with the program as it currently is implemented. The second was to interview various campus faculty, staff, and administrators who were all very familiar with USP. And

third, the committee reviewed past evaluations provided by various sources. Each of the assessment tasks undertaken by the committee is described below.

I. Survey

A “snapshot” survey was sent to approximately 100 individuals with an interest and knowledge of the University Studies Program throughout the campus community (Appendix E). Deans, Associate Deans for Academic Affairs, faculty advisory, central advising staff, and other were included. Of the 100 surveys distributed, 51 were returned for a return rate of 51%. Survey items included the same series of statements about each of the nine major requirements of the USP and respondents were directed to select one response. Possible responses were:

- Number of credit hours be decreased
- Number of credit hours should be increased
- Requirement should be fulfilled in a new way

Respondents were also asked to provide any additional comments about each of the requirements. A final section of the survey provided a listing of courses that are not currently part of the USP and respondents were asked if they thought the courses should be part of USP.

Results

The majority of respondents in each requirement category supported the statement that the requirement should remain the same. Support of current requirements ranged from a high of 83% for the mathematics and natural science requirements to 49% for the written communication requirement. Clearly the respondents to the snap-shot survey support the current USP requirements. When responses from the Deans (n=8) are considered separately, they are less supportive of keeping all the requirements the same. Specifically, only 38% agreed that the foreign language, the oral communication, and the cross-cultural requirements should remain the same. Only 25% agreed that the written communication requirement should remain the same. A summary of the results may be found in Appendix F.

II. Interviews

The USP Self-Study Committee sought input from numerous people across campus with first-hand knowledge of the program. A listing of individuals interviewed is provided below. The majority of interviewees were seen in small groups. Those who were interviewed individually are designated by an asterisk (*).

College Deans

- James Cibulka, College of Education
- David Johnson, College of Communication & Information Studies
- Devanathan Sudharshan, College of Business & Economics
- Steven Hoch, College of Arts and Sciences *

University Faculty, Staff, & Administrators

- Peter Berres, Assistant Dean for Student Affairs, College of Health Sciences
- Joanna Badagliacco, Director, Discovery Seminars*
- David Durant, Director, The Honors Program
- Richard Greissman, Assistant Provost for Program Support*
- Cindy Iten, Student Affairs Director, College of Arts & Sciences
- Becky Jordan, Director of UK 101*
- Philip Kraemer, Associate Provost for Undergraduate Education*
- Adrienne McMahan, Assistant Dean for Student Affairs, College of Arts & Sciences
- Deborah Moore, Director of Assessment, Office of Institutional Research, Planning & Effectiveness*
- John Pica, Assistant Dean of Enrollment Management & Assessment, College of Arts & Sciences
- Lou Swift, Former Dean of Undergraduate Education*
- Ernest Yanarella, Chair, University Senate*

Office of Central Advising

- Mary Sue Hoskins, Director of Central Advising
- Kelly Crume, Advisor
- Suanne Early, Advisor
- Vicky Schankula, Advisor

Issues raised during these interviews were summarized in question form with opinions listed to illuminate the problems or concerns. This information may be found in the section titled, “Issues Facing the University Studies Program”, which appears later in the document.

III. Review of Existing Evaluation Data

These included: 1) Review of USP Syllabi; 2) Graduating Senior Survey – USP Items; and 3) Focus Group Discussions.

Review of USP Syllabi

The decision to implement a syllabus review project for USP was made in late spring of 2004. The stated goals of the effort were:

- Gain a current snapshot of instructional practices across the entire program
- Gain information about the degree to which USP goals are supported through current course offerings.
- Increase discussion about effectiveness of USP

The strategy for implementing the project involved gathering the syllabi, constructing a checklist for reviewing the syllabi and involving the USP committee in applying the checklist.

In the late spring, Deborah Moore, Director of Assessment in the Office of Institutional Research, Planning & Effectiveness, began crafting a checklist for reviewing syllabi. She

consulted with the Dr. Carolyn Carter at the Center for Teaching and Learning, who provided a number of helpful resources. Articles by Jay Parkes and his colleagues at University of New Mexico were particularly helpful in conceptualizing the checklist that would be used (2002, in press). USP committee members were consulted on the checklist and offered suggestions that were incorporated. The electronic tool that resulted from this effort can be viewed at: <http://www.uky.edu/Assessment/uspsurvey.htm> .

Copies of syllabi were initially requested in May, 2002 at a public meeting sponsored for Directors of Undergraduate Studies by Dr. Philip Kraemer. Follow-up requests were sent to directors during summer and early fall months.

In the fall, USP committee members were provided folders containing syllabi associated with courses that could be used to satisfy one of the USP goals. A team of 2 to 3 members were assigned to review all syllabi for one of the USP goals. The teams did not all use the same strategy for ratings. In some cases, teams read, met and discussed before submitting ratings. On other teams, raters submitted as they read and no discussion occurred within teams.

Of the total number of syllabi reviewed, less than half (40.8%) identified the course as part of USP on the syllabus. For the item that asked reviewers to rate how well the listed course objectives represent the USP goals, the rating with the highest percentages was “very little/not at all”. Across the nine areas, the lowest percentages in the “very little/not at all” occurred in the social sciences (30.2% to 38.8%) in written communication (26.9%) and in cross cultural (29.6%). These findings show that the majority of syllabi for courses in the USP do not define the course as part of USP or provide objectives that represent the goals of USP. Results of the syllabi review may be found in Appendix G.

Graduating Senior Survey – USP Items

Eight items on the Graduating Senior Survey deal with the USP. More than half of the over 2000 students surveyed agreed or strongly agreed with the following items:

- Most of my USP courses have been intellectually challenging (58.38%)
- I understand why USP courses are required (71.28%)
- I understand how the various USP requirements fit together (64.2%)
- I understand the value of USP courses better now than at the time I took them (54.22%)
- The broad range of choices among courses to meet USP requirements was important to me (73.52%)

Items with less than half responding agree or strongly agree are presented below:

- Most of my USP instructors described the goals of the courses (34.76%)
- The quality of instruction in my USP courses was as good as my major courses (48.41%)
- I found USP requirements difficult to understand (16.46%)

Results of the Graduating Senior Survey dealing with the University Studies Program may be found in Appendix H.

Focus Groups

In April 2003, the Office of Institutional Research, Planning, and Effectiveness conducted three focus groups with students in the junior year. The purpose was to gather information about the University Studies Program. The students reported that course instructors had a significant impact on whether or not students valued USP courses. Students stated a preference for smaller classes that allowed for closer interaction between students and faculty. Of particular note was the report that USP was rarely mentioned by instructors. Generally any mention of USP occurred on the first day when reviewing the syllabus. Other references made by instructors about USP tended to be negative. The summary document for these focus groups may be found in Appendix I.

Models of General Education in Research Universities

Liberal arts colleges often have truly impressive configurations of general studies coursework. Such coursework is usually well integrated and seems to be well understood and highly valued by both faculty and students. Unfortunately, most research universities are unable to provide the same sort of general studies program for their undergraduates; in part, this seems to be due to the financial constraints involved as well as to the primacy of the research mission. In any case, we have chosen to focus our investigations of the potential models for general studies to research universities. We have not excluded private research universities; while such institutions operate under very different fiscal support structures, we may still be able to learn something from the ways that they deliver their core liberal arts curricula to their students.

It should be noted also that research universities differ in the nature of the courses they require; for example, an institution may require a physical education course, while another may require separate U.S. and non-Western cross-cultural courses. Such information will be discussed for the examples of the models mentioned under each of the broad categories below.

Several models exist; and there are many variations within each specific type of model. This section will present the models in sequence, with some information about some of the variation within each model. The models uncovered include the following:

- 1) no liberal arts requirement;
- 2) a common University-wide set of courses;
- 3) a flexible University-wide menu, in which each college or undergraduate program may choose to require its students to take specific courses in given categories; and,
- 4) a college-specific set of courses, with modest overlap among requirements of other colleges.

Please note that the examples cited are intended to serve as examples only; this is not a complete listing of all research universities for each of the models discussed.

Category 1: No Liberal Arts requirement

In 1969, **Brown University** adopted a new, open curriculum. Since that time, undergraduate students have worked with their advisors and faculty to design their own liberal arts programs. Brown's curricular philosophy is stated as follows: "The philosophy of the Brown Curriculum is based on the ideas that students need to be active participants in their education, that an education should be responsive to each student's particular intellectual interests and desires, that education is a process of intellectual growth rather than the static transmission of knowledge, and that the development of moral character is as important as the honing of intellectual skills."

A reasonable concern might be that a student would fail to choose the breadth of courses that one generally finds in a general studies program. However, students are provided with ample advising and structural assistance to help them choose appropriate, yet personalized programs. For example, their "Guide to Liberal Education" says that students ". . . should plan an academic program that includes study in the following areas", and then goes on to list:

- World civilization and cultures—both different from U.S. and U.S. itself
- Contemporary world cultures—through language, literature, religion, and other approaches
- Minority cultures within the U.S.
- Social analysis and approaches to social issues
- Science and scientific ways of thinking, including more than one perspective (for example, the natural world, the human organism, and scientific modeling)
- Mathematics and symbolic languages (for example, linguistics, philosophy, calculus, and computer science)
- Creative arts and literature
- Effective written and oral communication skills

Two other structural helps are provided: 1) a "Liberal Learning Courses" program lists most of the courses available to satisfy the above areas of liberal learning, and 2) an American Minority Perspectives program, which lists courses taught about U.S. themes in an inclusive way. So, while students do have extensive choices about how to satisfy Brown's listed liberal arts expectations, Brown does provide them with a good bit of guidance on how to find appropriate courses.

For those who wish to take a more detailed look at Brown's curriculum, you may wish to visit the following website: http://www.brown.edu/Administration/Dean_of_the_College/DOC/s2_brown_curriculum/about.html.

Category 2. Common, University-Wide Set of Courses

The **University of Maryland** and **University of Pennsylvania** provide two interesting examples in this category, and MIT appears to be moving more in this direction. Maryland offers a CORE General Education program, which is required of all of its entering first-year students, along with most transfer students. Interestingly, Maryland requires 9 hours each in categories titled as follows: "Humanities and Arts", "Math and Science", and "Social Science and History." That

makes these requirements considerably higher than many other research universities, including UK. Maryland does offer selections within these categories; however, nearly all students must satisfy this program.

Penn has established a pilot curriculum, in which students satisfy their “General Requirement” by taking one course each in four categories: “Structure and Value in Human Societies”; “Science, Culture and Society”; “Earth, Space and Life”; and “Imagination, Representation and Reality.” Penn states that this program is not intended as a core requirement; that is, they do not believe that four courses can cover all that educated citizens need to know in the 21st century. Instead, Penn wants these four courses to “open up areas of intellectual inquiry” to be pursued by students through their majors and elective courses. By design, the number of courses in each category is limited; the categories include only 1-3 alternatives each. That step helps ensure that students have a common “heritage”, and may serve to help keep participating faculty focused on the liberal arts goals involved, rather than their own disciplinary bents. It should be noted that the faculty directing these Penn courses retain their affiliation with their home departments; they have not been re-assigned to a University College. Finally, MIT is moving toward a more integrative liberal studies program, especially in the humanities. Faculty there have expressed concern over the number of humanities choices (150), as well as the lack of breadth of the humanities requirement (students may choose all 3 of their humanities from a single discipline).

We could not locate a contemporary example of a research university, which provided a centralized core of liberal arts courses through a faculty affiliated with a University College. **Duke University** uses post-docs in a significant way to deliver courses; however, the most extensive experiment with the University College model seems to have been Michigan State. According to Dean of CIS David Johnson, the Michigan State model was discontinued because faculty assigned to their University College were relatively unsuccessful in achieving tenured status. Several of the UK administrators interviewed by this committee expressed their reluctance to create a new college of “second-class citizens”; however, others argued that UK already has relegated some faculty to second-class status by giving them extensive teaching assignments in a research-extensive university.

Category 3: Flexible, University-Wide Menu

This model is by far the most common; of course, this is the model under which UK currently operates its University Studies Program. A review of the benchmark institutions for UK revealed that the majority of these institutions follow this university-wide menu model.

Interestingly, **Harvard** has recently moved more in this direction. Harvard’s new liberal arts program provides more selections, rather than a more focused program; they appear to be trying to meet the wishes of a more “provincial” student body (or faculty?). Further, Harvard has taken some heat from other Ivy League schools for moving in this direction, and has been accused of diluting the strength of its liberal studies requirement by making it more diffuse.

Other potentially examples of this approach are the **University of North Carolina** and **University of Minnesota**. UNC has a new, 42-credit program (approved in March, 2003), which starts from “Foundations”, moves to “Approaches”, and finishes with “Connections.”

Foundations include English composition and rhetoric (6 hours), foreign language (completion of level 3 or 4), quantitative reasoning (3 hours in certain math or statistics courses), and lifetime fitness (1 hour). Approaches include 7 hours in physical and life sciences, 9 hours in social and behavioral sciences, and 9 hours in humanities and fine arts. Finally, Connections build on the Foundations with one course each in communication, language enhancement, and quantitative methods. Students are also required to take one identified Connections course each in six categories (Experiential Education, US Diversity, The North Atlantic World, Beyond the North Atlantic, The World Before 1750, and Global Issues). Amazingly, UNC has found ways to convince undergraduate programs to require all the needed Connections courses within their own programs; that keeps the UNC general education requirement at 42 hours, and seems to provide some integration between the Foundations and Approaches courses and the major courses.

Minnesota also has a University-wide, flexible general education program. The number of selections is extraordinarily high, in order to serve this large-enrollment campus. Students take 5-6 writing-intensive courses (1-2 in their first year, 4 additional such courses sprinkled across their programs). In addition, they take a “Diversified Core” with 8 hours of physical and biological sciences, 9 hours of history and social sciences, and 3 hours of “mathematical thinking” (this category includes math and statistical courses, both within and outside of those two academic departments—for example, geography, philosophy, nursing, and animal sciences all have listed courses in this category). Finally, Minnesota requires all students to take a course each in four “Designated Themes”: environment, cultural diversity, international perspectives, and citizenship and public ethics. As you may imagine, the list of courses in each of those categories is very broad.

Category 4: College-Specific Set of Courses

The **University of Iowa** and **Purdue University** provide examples of this approach. Iowa includes five undergraduate colleges; Education requires its students to satisfy the general education requirements of Liberal Arts & Sciences, while Nursing, Business, and Engineering do not. It appears that the only commonality across all five colleges is 4-8 hours of rhetoric (writing, speaking, and reading). Purdue also has relatively few courses common across all of its undergraduate colleges; its Undergraduate Studies Program (an exploratory program for undeclared first- and second-year students) directs students to a limited number of general requirement courses “such as English composition and mathematics, necessary in most Purdue schools.”

Note: Given that the many Universities in Category 3 allow students a great deal of flexibility in choosing their general studies coursework, and given that colleges and undergraduate programs may require specific choices within the set of possibilities for each category of coursework, Category 3 may not be very different from Category 4. At UK, many programs direct their students to specific University Studies Program selections in several different categories; this approach allows programs to satisfy USP requirements with pre-major and major courses. Some concern has been expressed about the possibility that programs in this model (Category 4) would not honor the highest goals of general education in their selection of courses, but would instead devise general education programs subservient to their own more narrow program goals.

Brief Additional Comments on Examples Cited in the Twenty-First Century Studies Proposal

Recently, President Todd has approved funding for an initiative developed by Senate Council Chair Ernest Yanarella; that initiative indicates plans to visit five campuses to learn about their approaches to general education, and to bring back ideas for the UK discussions on this topic. Those institutions are **Miami** (of Ohio), **Evergreen State**, **Washington State**, **Portland State**, and **Syracuse University**. We felt that our committee should also provide some context on those five examples, since they have been brought up as exemplars of general education.

Miami includes five categories of “Foundation” courses. Those categories are English Composition (6 hours), Fine Arts, Humanities, and Social Science (12 hours), Cultures (6 hours), Natural Sciences (9 hours), and Mathematics, Formal Reasoning, and Technology (3 hours). Within each of the above categories, many selections are available. This program would fall in our “Category 3” above. While these requirements seem fairly conventional, it may be the quality of the instruction that is most appealing. Interestingly, Miami has one of the strongest faculty development centers in the country; that may account for some of its excellence in instruction.

Evergreen State is a non-conventional institution in many ways; for example, all student evaluations are narrative, rather than conventional letter grades. Students take courses in “planning units”; those clusters are in “Culture, Text and Language”; “Environmental Studies”; “Expressive Arts”; “Native American and World Indigenous Peoples”; “Scientific Inquiry”; and “Society, Politics, Behavior and Change.” Culturally, this institution may be so distant from UK that application of its considerable insights into student learning may be constrained by those cultural differences.

The Critical Thinking project at Washington State is something akin to the Writing Across the Curriculum program, which has been quite successful at many institutions across the US. While the WSU’s General Education program is involved in this project, as is the faculty development center on that campus, this project does not represent a new model for general education. Instead, it is an innovative approach to encourage faculty to foster higher order thinking skills among their students. UK’s current USP requires a writing component in all of its courses; one potential approach would be to require all instructors in the new UK general education program to incorporate critical thinking into their courses. (Of course, we would have to completely define “critical thinking”, a task that has proven difficult, even elusive, at other institutions.)

Portland State starts their first-year students with a yearlong course called “Freshman Inquiry”, designed to introduce students to different methods of inquiry and to prepare them for success in their majors. Sophomores select three different “Sophomore Inquiry” courses; each of those three courses leads to a cluster of four thematically linked courses in their junior and senior years. Finally, a capstone experience is required of all students. This program is most like the Category 2 above.

Syracuse has retained a liberal arts core, which includes “Liberal Skills” (3 writing courses and either 1-2 language courses or 2 quantitative skills courses), “Divisional Perspectives” (4 humanities courses, 4 natural sciences and mathematics courses, and 4 social sciences courses),

and “Critical Reflections on Ethical and Social Issues” (2 courses). It appears that students have a high degree of flexibility in the choice of specific courses in each of the above requirement categories. Syracuse would thus appear to fit under our Category 3 above.

Many other institutions have developed attractive approaches to general education. We have chosen to focus primarily on institutions most like UK, on the premise that the fiscal and research-mission constraints under which UK operates may not permit this institution to adopt models favored by smaller, better funded, more teaching-intensive institutions.

Issues Facing the University Studies Program

Before thoughtful recommendations can be developed, it is important to review some fundamental questions that exist concerning the University Studies Program. It is clear from our readings, interviews with members of the campus community, and review of assessment information, there is no one unified voice about the quality of the current USP or the need for change. Indeed, the most marked finding of this self-study is the lack of a clear unified opinion about the current program or about any other programs. This lack of agreement seems to indicate that there should be a campus-wide conversation about the meaning of a liberal education and the learner outcomes of such an education. Following this conversation, the next task would be to determine best models for the University of Kentucky to achieve these outcomes.

The following represents a series of questions that came out of the self-study process, including the interviews, as well as critique of the ideas or statements provided.

Question 1. Should the administration of general education courses be decentralized (i.e., by departments or colleges) or centralized (i.e., by the university as a whole)?

Opinions

Some Deans favor the decentralization of general education requirements, especially if courses are not integrated. Comments from the interviews included:

1. USP is a model that is “totally broken”. “UK should not have a core that is a façade” (e.g., 30 courses under X rubric does not represent a core).
2. Students in each college have a pragmatic view of what type of general education they should receive.

Problems with decentralization

1. Some Deans feel USP is working well (“serves the college well”).
2. It would most likely be necessary to have a Kentucky General Education Transfer Agreement for each set of college requirements.
3. Colleges likely would still have a menu of courses in various areas.
4. It is not clear who would teach the courses required in each college. The question is whether or not the College of Arts & Sciences would be expected to teach most of them.

5. Why decentralize when many departments already constrain students to take specific courses from the list of possible courses? (In colleges with external accreditation, students often have no choices about the courses they select in USP. The USP options are narrowed considerably to serve as pre-requisites to the major.) .

Question 2. Should all or some USP courses be integrative?

Opinions

Some argued for more integrative courses. Such courses were proposed in the Expanding Horizons model (based on the Modern Studies Curriculum of the early 1990s).

1. Integrative courses more clearly represent the nature of interdisciplinary study.
2. Faculty are free to propose integrative courses as part of the current USP.

Problems with integrative courses

1. Faculty appear reticent to propose and teach such courses (exception: Honors Program courses) since they would require additional preparation, often not in one's area of study.
2. Additional funding may be required to coordinate faculty efforts to ensure integration of material.

Question 3. If we continue with an "exposure" model to general education, what exposure should students receive?

Opinions

Some argue that an open debate or campus wide conversation is needed about what should be included in general education

1. It was suggested that a central group of people who know what should be included in general education be gathered together to discuss undergraduate education.
2. The curriculum would then be approved by a campus body, and accreditation groups. It would also need a group to provide oversight.
3. It would be important that the requirements of the various accrediting agencies associated with specific academic programs be considered in any revisions of USP.

Problems with deciding what exposure should be required

1. As history has shown, decisions about what to include in a general education curriculum involve a great deal of politics.
2. There have been many committees who have discussed this problem (i.e., will we continue to keep having new discussions with no changes every few years?)

Question 4. What can be done to remedy the problems of placement exams in both Math and the languages?

Opinions

The use of these placement exams was seen as problematic by some (e.g., validity of scores was questioned), especially in math. It was not clear what the scores on these exams predict.

Question 5. Should all UK students take UK 101 as part of USP?

Opinions

If all freshman took UK 101 in their first semester, it would allow for a common freshman experience. UK 101 could be the context in which the goals of USP are discussed in detail.

Problems with all freshmen taking UK 101

1. The Director of UK 101 (Becky Jordan) has stated that she and others feel that enrollment in 101 should not be mandatory.
2. Having almost half of freshmen taking UK 101 allows information to be communicated to the other half.
3. Alternatives to having all freshmen take UK 101 would be having sections for students with no majors and giving a letter grade.
4. The University doesn't have sufficient number of faculty to offer 101 to all freshmen.

Question 6. Should the Inference and MA requirements be changed so that completion of these requirements does not lead to a 3 (MA 109, Logic, Statistics) vs. 1 problem (Calculus)? For example, should there be a single Quantitative requirement in which students take a course in one of 3 areas (e.g., UCLA)? Or should it be eliminated and dealt with at the college level?

Opinions

Concerns were raised about the current three course versus one math/inference course problem. Students may fulfill the Math & Inference requirements in two ways that would have some students needing three courses to fulfill the requirements while other students can opt to take only one course, calculus, to fulfill the requirements.

1. Students often opt for the relatively easier "3" courses if their major allows for either option.
2. The history of these requirements indicates a great deal of political compromise.
3. It does not appear from the 2001 Report to the Dean of Undergraduate Studies on the Inference requirement that any other benchmark school has a 3 vs. 1 Math/Inference requirement like UK.
4. Other universities have a single Quantitative requirement.

Problem with changing the requirements

1. Faculty in certain disciplines have a vested interest in maintaining the requirements as is.
2. Resources may not be available to follow the recommendation to require 2 courses, e.g., inductive & deductive reasoning, made by the Ad Hoc USP Inference Requirement Subcommittee (Report to the Dean of Undergraduate Studies – See Appendix J).

Question 7. How best to deal with students who need remedial work in Math?

This question was raised, although no clear alternatives were raised, other than to force students to take MA 108 at LCC.

Question 8. From the perspective of the College of Arts & Sciences, how can the burden to teach USP courses be reduced for the College?

Opinions

The College of A & S feels that it needs more resources to teach the large number of USP it currently handles (85%).

1. There was a concern expressed that A&S may not be able to offer all the general education courses it currently teaches (like the Oral Communication requirement), which would be a major problem for departments whose accreditation depends on certain A&S courses.
2. Certain A & S departments are burdened with USP responsibilities.
3. College requirements in A& S add to the burden of teaching and have been characterized as “an expansion of the USP”.

Problems with A & S argument

1. More general education courses should be taught by faculty in other colleges.
2. Some A & S departments probably teach too many USP courses, relative to the size of those departments
3. Currently USP is resource expensive (especially some language courses).

Question 9. Should certain students have priority to register for USP courses (e.g., Honors Program students)?

Opinions

Some made the argument that certain groups of students should be allowed to register early because of schedule constraints (e.g., athletes, Honors Program students).

Problems with having some students register early

1. Allowing some students to register early is viewed as unfair.
2. The increasing size of the student body makes getting into classes more difficult.

3. Some felt that the arguments for athletes makes sense but it is unclear why Honors Program students should receive this perk (e.g., they have many Honors sections offered).

Question 10. Should specific USP requirements be eliminated?

Opinions

The USP Survey (which did not include students) indicated that some respondents thought specific requirements should be eliminated.

1. The highest percentages were for Oral Communication, Foreign Language, Inference, and Cross-Cultural. However, the overall response of those surveyed was to keep the current requirements.

Problems with eliminating requirements

1. The political climate makes it difficult to eliminate requirements. Departments that offer USP courses fear that loss of student FTE could result in a loss of resources. In some cases, the outcome of this fear is that departments continue to support those aspects of USP that most directly benefit them.

Question 11. Should specific USP requirements stay the same or be changed?

Opinions

The majority of respondents to the USP Survey (which did not include students) indicated that the requirements should remain (except for Written Communication).

The USP Survey indicated that some respondents thought specific requirements should be fulfilled in new ways. (See comments in Appendix F)

1. The highest percentages were for Written Communication, Oral Communication, Foreign Language, Inference, Social Science, and Cross-Cultural

Problems with changing requirements

1. See Question 10

Question 12. Should specific USP requirements be added?

Opinions

The USP Survey (which did not include students) indicated that some respondents thought specific requirements should be added.

1. The highest percentages were for Fine Arts, Computer Science, UK 101, Physical Education, Community Service, Freshman Discovery, and additional Cross-Cultural
2. Other suggestions include critical thinking, foreign language, and literacy.

Problems for departments to cover additions

1. UK does not have enough faculty to teach additional USP requirements.
2. Deciding to add requirements would lead to controversy.

Question 13. What can help to make USP a more cohesive program?

Opinions

1. A number of comments revolved around the idea that USP is not cohesive or integrated as a program.
2. Students do not understand what USP is trying to achieve as a program--one suggestion was to change the name from "USP" to "Liberal Education" to clarify the main goal of USP.
3. Goals of different requirements seem at odds. Natural scientists thought there needed to be a depth of knowledge and the social scientists thought there should be a breadth of knowledge.

Question 14. How can teaching in USP be made more attractive to faculty?

Opinions

1. Faculty may like the idea of being part of a "College" that handled only general education.
2. Greater emphasis on teaching in USP should be part of merit ratings.

Problems in having a specific "College"

1. The "general education" college could lead to greater separation between "teachers" and "researchers" and affect promotion cases for the former. Some mentioned concerns about a two-tiered system of faculty.

Question 15. How can USP deal with an increasing number of students?

Opinions

No one seems to know the answer to this question. The increase in the size of the student body, however, was a concern to almost everyone.

1. Fewer resources are directed to undergraduate education.
2. Larger classes were of concern since they may often leading to less writing.
3. UK does not have enough full-time faculty to teach.
4. Students have problems signing-up for courses.

Question 16. Should USP be taken in first two years?

Opinions

Some argue that it is best to have students get a base from which they can be more focused in later years.

1. Taking courses in the first two years allows for a sense of community among freshmen and sophomores.

2. It is important to have students understand the historical role and value of liberal education and how it fits into an educational program.
3. The dynamics of lower-division courses can be disrupted when upper classmen are enrolled.

Arguments against constraining when students take USP courses

1. The majority of respondents in the USP survey felt students should not be constrained.
2. General education does not stop in the later years of college.
3. Some upper classmen are better able to deal with information than lower division students.
4. Upper classmen can serve as mentors and actually facilitate classroom interactions.

Question 17. Are the objectives of USP being met?

Opinions

1. The answer to this is unclear, but the assessment of USP is extremely important.
2. Assessment of USP objectives represents a huge challenge.
3. Also, one Dean noted that there is the tendency to think of USP as a liberal arts model of education, but our students have a very pragmatic view of what they want.
4. One Dean asked: “What really is the university’s role in terms of what education we provide for the US workforce? What role does USP play for this differentiation?”

Recommendations

The following recommendations are made to guide the external review committee as it develops an implementation plan to consider whether the current USP is sufficient or if a different program should be developed. These recommendations are made from the perspective that two things must occur before a decision about what form undergraduate general education should happen at UK: 1) a campus wide discussion of how UK will define general education and a liberal arts education and 2) assessment of the current program or an assessment plan developed for any new program.

1. **Campus- Wide Conversation.** Given that there are such disparate views regarding the current University Studies Program and the role of general education at a research university, it is strongly recommended that the Associate Provost for Undergraduate Education lead a campus-wide conversation about general education. The outcome of the conversation could be a recommendation to revise or replace the current USP, but the initial conversation should be on general education with all members of the campus community invited to participate. While the outcome is important to all at UK, the most important aspect is the process of discussing the national agenda for undergraduate education, the merits of the current

program, and determining the best course of action for our own institution. It is strongly recommended that the process be the focus, with sufficient time to hear from all members of the campus (deans, administrators, professional schools, advisors, students). Speed should not be the target but rather a substantive discussion of the broader issues of undergraduate education followed by the external review process associated with this unit review. A note of caution must be offered. There should be considerable thought given to the mechanism for engaging members of the campus community in this conversation. The campus needs a different approach to this notion of “conversation” than has been used in the past. Failure to find an engaging mechanism will result in increased faculty cynicism and will result in a lost opportunity. This failure will negatively impact any efforts at academic innovation at UK. Unless it is carefully planned with full administrative support, the campus may be better off with the current USP with no changes at all.

2. Membership of the USP Task Force. One of the recurring issues in the self-study was the perception that many approached the review of USP from a narrow perspective rather than considering what is best for students or for the broader UK community. The committee felt that some departments were seeking to keep USP the same because they have become dependent on resources such as teaching assistants that support their graduate missions. Thus, members of the USP Task Force on Undergraduate Education (the external review committee) must be chosen with care. Individuals who can rise above unit needs, whether monetary or personnel, and consider a more global perspective should be chosen. The most important position will be the chair of this effort. This leader should be able to identify when someone on the task force is speaking for self-interests. The leader must strive to continually direct the conversation back to what is best for UK. Fairness, openness, and community must be emphasized. The UK community must come to the realization that a quality undergraduate experience is the responsibility of all the colleges, and each must be willing to contribute.
3. Assessment. Regardless of the form of the University Studies Program, it is essential that a systematic program of assessment be developed. There must be a concerted effort to evaluate the quality of the overall program using metrics other than the course grade for individual courses. The following recommendations have been provided by Deborah L. Moore, Director of Assessment, Office of Institutional Research, Planning & Effectiveness.

Although some of the goals of the University Studies Program were articulated when it was established, an assessment strategy was not. The limited detail about how the campus community can judge the program’s success or failure creates a dilemma for any party wishing to embark on or support such a task.

USP is a complex program from the standpoint of the number and type of goals embedded in it and the extremely large, and ever growing, array of course options through which students can meet credit hour requirements or achieve specific learning outcomes. Further, the program is *owned* by individual course instructors, a number of departments and colleges, and *operated* by all or none. Some policies need to be created to bring some coordination and productivity to this work. Outside of a few isolated efforts, there is almost no systematic student learning outcomes assessment being accomplished. Further, even if data were available, where it should be delivered and who should act on the implications is not clear.

Some of the minimum elements that are needed include:

Revisit USP goals and place them in a broader student learning/development framework to help point toward appropriate assessment checkpoints across the variety options.

Although there are a number of goals, the current goals can be conceptualized as falling in three common groupings: 1) Goals that relate to liberal studies knowledge including interdisciplinary knowledge and understanding of humanities, social science and natural science as involving somewhat distinct methods of inquiry; 2) Common skills or abilities that are developed and enhanced across the curriculum such as advanced/higher level writing, information literacy, computing, speaking/listening and numeric or quantitative skills; and 3) Broad developmental outcomes associated with critical reasoning, problem solving, ethical reasoning, social responsibility/citizenship.

If the current goals are maintained, the next step will be to determine when students will have had sufficient opportunity to develop or advance their skills to the expected standard. Assessment should then be designed for judging progress and outcomes. In addition to determining what type of information would be informative, some initial standard of expected performance needs to be articulated.

In the recent past year, there has been a recognition that writing advances on several dimensions and that an assessment of writing at the end of the first year is inadequate. Although there has been a policy change that is seen as a new circular requirement, a plan for evaluating the impact of this change will be needed. Similar thinking needs to be given to other important outcomes.

An oversight group is needed that has responsibility for directing the process of assessment and directing energy toward improvement should inadequacy in performance be identified.

This group needs to have authority to plan and execute cycles calling for evidence about (a) student learning outcomes and (b) instructional practice associated with the delivery of the program. This group also needs authority to set standards for acceptable evidence and outcomes. This group should also define a cycle so that attention is given to all outcome areas over a span of years in a fashion similar to the program review cycle. Some schools rotate attention on outcomes; other schools rotate reports from units supporting general education work.

- Appointments to such an oversight group should be for multiple years while a new assessment effort is being established. A full program of critical outcomes cannot be realistically achieved in a single year and the need for continuity through the entire cycle is important in order to gain a holistic perspective.
- If departments are asked to provide some level of oversight, they must be provided information about acceptable practice and evidence for that oversight. For example, it is common practice for departments to be involved in ensuring that some types of common learning experiences occur in courses that are offered through multiple sections.

A definition of the types and qualities of assessment information that would be considered credible for decision-making about the program's strengths and areas for which improvements are needed. Decisions about these qualities will influence how and when samples are drawn or whether all students are involved assessment on the various dimensions. What type of information is credible will also influence the formats assessments may take, such as use of objective formats in some instances and performance in others. In defining the qualities of assessment evidence, the goal should be to balance quality and precision of evidence with costs, both human and material. Grade distribution information and student surveys about perceived gains in learning are generally part of the information that is used to make decisions about general education programs. However, it is generally considered inadequate if some direct evidence of performance is not also considered.

Policies and standards of practice with respect to student and faculty participation in assessment activities are needed. Aside from considerations of achieving equity in terms of time and effort, costs can be controlled through willing participation in new methods for collecting evidence. Although some assessment models embed assessment within courses in a highly coordinated fashion, some assessment work can be achieved more efficiently if using means outside the normal classroom structure (i.e. computer assessment labs, assessment day models).

Encourage units to make use of the program review and annual reporting process for reporting on student learning outcomes of general education outcomes. These vehicles represent exiting systems that can accommodate documentation that can be disseminated for use by groups such as the oversight group that is being proposed.

4. Oversight Committee. It is strongly recommended that a faculty oversight group be charged with formulation of the guiding principles for the program. This group would serve as monitors to ensure program standards are being met. They would be responsible for on-going approval of courses in the general education program, regardless of its form. One of the possible problems encountered with an on-going committee is that courses submitted for approval may be evaluated strictly on their own merits. Indeed, that seems to be one of the problems with the current USP committee's approval process. Instead each course should be viewed in the context of the whole. Each course must be scrutinized to determine that the overall goals of the general education program are being met. Further, courses should be recycled through the approval process on a periodic basis to ensure they continue to meet the overall program goals. To assist in the assessment of learner outcomes, it is recommended that the committee rely on The Office of Assessment as a technical support arm for the general education program.
5. Integration of the Twenty-First Century Studies into USP. The proposed plan for the Twenty-First Century Studies program is a thoughtful, forward looking plan that moves the discussion past the idea of questioning whether or not a revision is needed and well past the idea of what sort of revision is needed. The models proposed in the plan outline a new direction for the university. The plan also has the support of the President. Therefore, it is recommended that the general principles of the plan proposed by Dr. Yanarella become part

of the discussion for the USP External Review Team. While the USP self-study was occurring, other groups on campus were recognizing the need to evaluate general education and were making plans for innovative methods. These efforts should be praised and we should all join in the process. By joining together diverse groups with interest in undergraduate education, the final product will be considerably strengthened. Student participation in the process. I'd argue that we include both undergraduates and graduates--the grads could give us some of the longitudinal perspective that our undergrads don't yet have. Of course, our own undergrads ought to be given a primary voice here. It might be that Ernest 's effort could be paralleled by a similar effort to engage students in this discussion--we'd have to be very intentional to get this done well.

6. Faculty development. A common feature of several of the campuses that were mentioned in the Twenty-first Century proposal is that they work hard at faculty development within their general studies programs. Faculty development efforts could include inviting current or potential general studies faculty to targeted training/development workshops and/or team-building efforts. Perhaps the strongest such efforts would place faculty working on similar learning objectives together to develop complementary approaches to getting the job done. Of course, appropriate growth in the use of instructional technologies is one of the areas for faculty development; however, this must be seen as one of several available tools to promote student learning. The committee recommends that one part of the approach to change be to include a strong component of faculty development activities.
7. Supporting local initiatives under USP. Even as we invest efforts campus-wide on revitalizing the University Studies Program, we may also be well-served to continue to support and develop local initiatives. For example, Provost Nietzel is promoting an extension of the Honors Program to science areas--that would expand the proportion of the incoming first-year class with an opportunity to get involved in the Honors Program. Another example would be the implementation of an Expanding Horizons pilot program. This pilot is "ready-to-go" with courses and instructors in the waiting. A test-run of the program could give us a better idea of how it could fit into UK's broader general studies array. The Discovery Seminar Program could also be expanded beyond the first semester and into more than one USP course. That seems to fit very well with several of the Boyer recommendations. The committee believes that we need to take a long look at general education at UK, but that we can't wait to complete that process before moving forward on these local initiatives and innovations.
8. Role of Administration & Faculty Senate. For this effort at "reinventing" undergraduate education at the University of Kentucky, the administrators and campus leaders must believe in the need for such a reinvention and be willing to support it to colleagues and faculty. A clear mandate to faculty coming from Deans, the Provost, and the President will signal the importance of the next steps for undergraduate education at the university. We see this as an amazing opportunity to move to the forefront through innovation and campus wide support. The University should continue to look for ways to do things differently with less rather than always looking to do more with less. We should strive for a quality program that can be established and maintained for many years.

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Appendices

Appendix A: Administrative Regulation AR II-1.0-6

Appendix B: Committee on General Education Final Report 1985

Appendix C: Memorandum from Lou Swift Proposing Revisions of USP 1999

Appendix D: Expanding Horizons: A General Education Program for the 21st Century
Expanding Horizons Grant Proposal

Appendix E: Snap Shot Survey of the University Studies Program – The Survey

Appendix F: Snap Shot Survey of the University Studies Program – Results & Comments

Appendix G: USP Syllabi Review Project

Appendix H: Graduating Senior Survey (2003-2004) – University Studies Program Items

Appendix I: A Brief Summary of University of Kentucky Focus Groups

Appendix J: Report to the Dean of Undergraduate Studies from the ad Hoc USP Inference
Requirement Subcommittee

Appendix A: Administrative Regulation AR II-1.0-6

UNIVERSITY OF KENTUCKY ADMINISTRATIVE REGULATIONS	IDENTIFICATION AR II-1.0-6	PAGE 1
	DATE EFFECTIVE DRAFT	SUPERSEDES REGULATION DATED

PART III

PROGRAM REVIEW: ASSESSMENT OF ACADEMIC, ADMINISTRATIVE, AND EDUCATIONAL SUPPORT UNITS

I. PURPOSE

The purpose of this part of the Administrative Regulation is to set forth definitions, responsibilities, policies, and procedures for the assessment component of the Planning, Budgeting, and Assessment Cycle. Program review serves as the primary vehicle for the assessment of academic, administrative, and educational support units and for the documentation of institutional effectiveness. The purpose of the program review is to improve the quality and effectiveness of teaching and learning, research, public service, and operations. It does so by systematically examining missions, goals, objectives, resources, activities, processes, and outcomes of programs and services.

II. DEFINITIONS

- A. Unit: In this document, the term *unit* is used in an inclusive way and refers to all organizational entities that provide academic, administrative, and/or educational support programs and/or services.
- B. Assessment: Assessment is an ongoing process through which units monitor the effectiveness of programs and/or services to facilitate decision-making and quality enhancement.
- C. Institutional Effectiveness: Institutional effectiveness is a measure of the extent to which an institution or unit accomplishes its mission, vision, and goals.

III. ROLES AND RESPONSIBILITIES

- A. The President will establish university-wide expectations for conducting program reviews and using assessment results in planning and budgeting decisions to facilitate continuous quality enhancement.
- B. The Provost and Senior Vice Presidents will:
 1. facilitate program review activities as described herein to ensure the linkages between assessment results and ongoing planning and budgeting decisions.

2. use program review results in providing executive decision support information to the President.
- C. The Vice Presidents, Associate Provosts, Deans, Department Chairs, Directors, and other Administrative Agents, as appropriate will carry out program review activities as described herein to ensure linkages between assessment results and ongoing planning and budgeting decisions.
- D. The Vice President for Institutional Research, Planning, and Effectiveness will:
1. implement program review activities as described herein to ensure a comprehensive, ongoing institutional effectiveness effort.
 2. consult with appropriate administrative agents to maintain a 5-7 year program review schedule.
 3. work with the Vice President for Fiscal Affairs and Information Technology—Data Administration and with other areas as appropriate to ensure the timely availability and integrity of data on human resources, finances, students, facilities, and programs to meet institutional effectiveness data needs.
 4. maintain and update periodically a data dictionary and an inventory of institutional effectiveness data needs.
 5. maintain and evaluate periodically an institutional research function that works to ensure timely access to accurate, consistent data.
 6. maintain and evaluate periodically an assessment function that provides support and consultation to assist units in developing valid, reliable assessment methods.
 7. serve as a central repository for program review results and for annual progress reports submitted through the web-based strategic planning and reporting system.
- E. The Vice President for Fiscal Affairs and Information Technology will:
1. provide university-wide administrative databases that support institutional research and assessment needs and ensure timely access to institutional data.
 2. develop, in concert with the administrative database custodial officers and the Vice President for Institutional Research, Planning, and Effectiveness, appropriate access policies, census file creation, and educational assistance for each administrative database.
 3. provide appropriate information technology programming support to meet institutional research and assessment needs.

IV. INSTITUTIONAL EFFECTIVENESS CRITERIA

The program review process is designed to facilitate continuous quality enhancement in university programs and services and to enable the University and its units to document institutional effectiveness. To meet institutional effectiveness criteria, the University and its units must have the following:

- A. A current mission statement, which is evaluated and updated during the periodic

program review.

- B. Clear, concise, and measurable statements of unit goals and objectives that are consistent with unit missions. These statements *may* reflect inputs and processes, but they *must* reflect outcomes. Goals and objectives of degree programs, including the University Studies Program, *must* address the quality of student learning by describing expected educational outcomes for students who complete the program. (see *Handbook for Effective Program Review* for examples and additional information.)
- C. A description of assessment methods, including the specific evaluation techniques and criteria used to determine progress.
- D. A process to use assessment results for quality enhancement, including linkages to future planning and budgeting.

V. PROGRAM REVIEW COMPONENTS

The program review process involves four major components: A) an internal review of a self study report; B) a review and report by a team providing an external perspective; C) a plan to implement recommendations; and D) annual progress reports that provide follow-up to the implementation plan and inform planning and budgeting decisions.

- A. Internal review/self-study report. As part of the review process, the unit first prepares a self-study report that covers the last 5-7 year timeframe. The nature of the unit and its programs and/or services and/or any special focus given to the program review may require additional elements in the self study; however, at a minimum, the self-study includes (see Form XXX in the Appendix and the *Handbook for Effective Program Review* for additional information):
 - 1. Program Documents: strategic plan (i.e. mission statement, goals and objectives, and criteria for measuring progress), organizational chart/structure, and annual progress reports since the last self-study.
 - 2. Current Resources: *summaries of information about budget, facilities, equipment, and human resources, including faculty and staff diversity.*
 - 3. Evaluation of Quality and Productivity: *evidence of quality and productivity in instruction, research, public service, and/or operations; evidence of adherence to university policies; evidence of the quality of the collegial environment, including the climate for diversity.*
 - 4. Analysis of Strengths and Recommendations for Quality Enhancement: *a synthesis of self-study findings resulting in a summary of program strengths and recommendations for quality enhancement related to planning and evaluation, current resources, operations, the climate for diversity, and programs and/or services.*
- B. External review/team report. This component of the program review process provides an external perspective regarding the quality and effectiveness of the unit's programs and/or services, resources, processes, and operations. Its purpose is to assure an objective, unbiased assessment of unit programs and/or services. The

external review team:

1. examines the self study report
2. engages in additional information-seeking, as necessary
3. confirms or questions the validity of the conclusions reflected in the self-study recommendations
4. identifies additional strengths and recommendations for quality enhancement
5. prepares a final report on its findings

C. Implementation Plan. In this component the unit uses assessment results and recommendations to develop an implementation plan (see Form XXX) that sets the agenda for change and quality enhancement over the next 5-7 year cycle. The implementation plan results from deliberations among unit faculty, staff, and/or students and in concert with appropriate administrative agents. Approval of the implementation plan by appropriate administrative agents signals an acknowledgement that unit needs will be given due consideration in future resource allocation decisions. It is the responsibility of the unit, however, to use the implementation plan as documentation of future plans and resource needs during appropriate times in the budgeting process. Following approval of the implementation plan, the planning, budgeting, and assessment cycle begins anew, as the unit:

1. evaluates and revises its strategic plan, as necessary
2. *seeks funding, as necessary, through the annual operating budget process or from the Quality Enhancement Fund*
3. develops an assessment plan (see Form XXX) for the next 5-7 year cycle

D. Annual progress reports. This component strengthens the link between program review results and subsequent planning, budgeting, and assessment activities. Each unit prepares an annual progress report (see <https://iweb.uky.edu/AnnualReview/Default.asp>) that:

1. identifies goals and objectives selected for assessment during the year
2. describes assessment methods and criteria for success
3. presents actual results
4. uses results to formulate plans for quality enhancement

By monitoring progress on selected goals and objectives each year, units may take corrective action and seek additional funding, as needed, to ensure success in achieving their strategic plans. Units maintain considerable autonomy in determining which goals and objectives to assess in any given year; however, they must assess systematically all strategic planning and/or student learning goals and objectives over the 5-7 year cycle. In this sense, the annual progress reports serve as building blocks for the next program review and self-study report.

VI. PROCEDURES

A. Schedule. In accordance with Governing Regulation IX-1, the formal, structured

program review is scheduled at least once every 5-7 years. The process for scheduling program reviews will include:

1. Flexibility for administrative agents, with input from unit faculty and/or staff, to negotiate with the Provost or appropriate Sr. Vice Presidents at which level in the organizational structure a meaningful, efficient program review should be conducted. Guidelines for making this determination are as follows:
 - a) A college with fewer than 3 degree-granting departments may be considered one program for review purposes.
 - b) A degree-granting division within a department may be considered one program for review purposes.
 - c) A department offering multiple degree programs may be considered one program for review purposes.
 - d) Administrative and educational support units within a college or department may be considered part of the college or department for review purposes.
 - e) An administrative or educational support entity consisting of several units organized separately, but highly related, may be considered one program for review purposes.
 2. Alignment with external accreditation review schedules as outlined in section D below.
 3. Notification by the Vice President for Institutional Research, Planning, and Effectiveness that the program review process is about to begin. The notification occurs approximately three months prior to the formal appointment of the review team and signals the initial development of the self-study report.
 4. Opportunity to request a change to the regularly scheduled time, not to exceed a delay of two years. The change may be requested by a majority of the members of the unit or an appropriate administrative agent. Such requests must be in writing, include a rationale, and be submitted for approval to the Provost or appropriate Senior Vice President.
 5. Opportunity for an *off-schedule* review, which may be initiated by a majority of the members of the unit or an appropriate administrative agent.
- B. Focus of Review. The focus of the program review, including the resulting self-study and the external team report, shall be the quality of the unit's programs and/or services. Areas of special interest to the unit may be identified at the beginning of the program review by the faculty and/or staff and appropriate administrative agents.
- C. Type of Review. Two types of program review are possible: *focused* or *comprehensive*. The type of review is negotiated with the appropriate administrative agent of the unit. (See *Handbook for Effective Program Review* for additional information.)
1. A *comprehensive* review seeks assessment information about the entire unit and its programs and/or services. At least every other program review must be

comprehensive.

2. A *focused* review is a thorough study of one or more major aspects of a unit and its programs and/or services. For a unit to be eligible to elect a focused review, a comprehensive review must have been successfully completed in the previous program review schedule. If the focused review option is elected, the unit must be prepared to (1) demonstrate adequate performance in all its activities, and (2) address unresolved recommendations agreed upon in earlier reviews.

D. **Accreditation Review Substitutions.** Accreditation review reports for external accreditation can be substituted for the program review, if approved by the Provost or appropriate Senior Vice President, and if the Vice President for Institutional Research, Planning, and Effectiveness has certified that the following conditions are met.

The accreditation review must:

1. *Occur at least once every 5-7 years. A program that is accredited every 10 years may schedule a program review every 5 years and use the accreditation report every other review period.*
2. *Address all mission areas. If all mission areas are not addressed in the accreditation report, the unit may submit an addendum in order to complete a comprehensive review of the unit's programs and/or services.*
3. *Include outcomes assessment. Especially in academic programs, the assessment of student learning outcomes is essential and may be included in an addendum, if necessary.*
4. *Require broad-based involvement of faculty, staff, and/or students.*

If the above conditions are met, the unit must:

5. Use the accreditation self-study and accreditation team report in addition to the addendum to complete the program review self-study.
6. Be examined by a university-appointed external review team that focuses attention on the addendum and elements of quality not addressed by the external accrediting agency.
7. Develop an implementation plan as described in section V-C.

E. Preparation of the Self-Study. The unit's administrative agent assigns responsibility for preparing the self-study to appropriate faculty, staff, and/or students and ensures broad-based involvement in the review of the self-study and the identification of strengths and recommendations for quality enhancement. A copy of the completed self-study, including results of the internal review, is forwarded to the appropriate administrative agents. (See Appendix XXX)

F. Appointment of the External Review Teams. After consultation with the unit head, the administrative agent to which the unit head reports will appoint and charge an ad hoc External Review Team, as follows:

1. The college dean will appoint review teams for academic departments after

consultation with the appropriate college council. The Provost or Sr. Vice President will consult with the Senate Council to seek nominations prior to appointment of review teams for colleges. The appropriate dean(s) will also be consulted prior to appointment of the review team for colleges. The review team for instructional units will be composed of faculty members external to the unit, ideally including one faculty member in the discipline, but external to the university. One faculty member within the unit may be included as support to the review team in conducting its activities and deliberations; however, the internal faculty member should not participate in discussions that may prevent members of the review team from being candid. The team will also include undergraduate and graduate student representation as appropriate and may include alumni and practicing professionals. The review team for research units will include faculty members in the field and may include researchers knowledgeable in the field from outside the University.

2. The appropriate Associate Provost, Vice President, or Director will appoint the review team for administrative and educational support units, after consultation with the unit head. The review team will be composed of faculty, staff, and students from outside the unit being reviewed and will represent the stakeholders and constituencies affected by the programs and/or services of the unit. One individual from the unit may be included as support to the review team in conducting its activities and deliberations; however, the internal individual should not participate in discussions that may prevent members of the review team from being candid.
- G. Distribution of Findings. Upon completion of the external review team report, the review team should meet with the unit faculty, staff, and/or administrative agent, and with the unit's immediate administrative supervisor, to discuss the findings. The substance of the review team's report is to be shared with the administrative agent of the unit being evaluated, and the full report is to be forwarded to the next levels of administration, including the Provost and/or appropriate Sr. Vice President. An executive summary of the report is to be prepared by the Vice President for Institutional Research, Planning, and Effectiveness and forwarded to the President.

In the case of academic department or division reviews, the department chair or division head will receive the review team's report and will provide a preliminary copy of it to each faculty and professional staff member in the unit. Upon request, a preliminary copy may be made available to students and other staff. Before distribution, the preliminary report must be edited by the administrative agent to whom the report is submitted to eliminate material clearly invasive of personal privacy and material that may be libelous.

In the case of college reviews, the Provost or Sr. Vice President will provide each faculty and professional staff member in the college with a summary of the review team's final report. This summary will include all major findings and conclusions and all recommendations. In addition, copies of the full, final report will be distributed to each department/division in the college and to the University Library for access by

faculty, staff, and students. Before providing access, copies of the final report may be edited by the Provost or Sr. Vice President to whom the report is submitted to eliminate material clearly invasive of personal privacy and material that may be libelous.

In the case of administrative and educational support unit reviews,.....

In the case of both reviews, the administrative officer receiving the reports will work cooperatively with the unit leadership to address issues and recommendations raised throughout the review process. A brief report addressing the activities planned to respond to the recommendations will be prepared by the administrative officer, filed with the unit evaluated, and forwarded through appropriate administrative channels to the chancellor/vice president.

H. Quality Enhancement Fund. The purpose of the university-wide Quality Enhancement Fund is to provide incentives for programs to pursue focused efforts to enhance quality based on meaningful assessment results. Upon the recommendation of the Quality Enhancement Advisory Committee, the President may award recurring and/or nonrecurring funds to programs that have met eligibility criteria and submitted a formal proposal. To be eligible for Quality Enhancement Funding (QEF), a program must have in place an assessment plan approved by the Office of the Vice President for Institutional Research, Planning, and Effectiveness, and must have obtained assessment results that:

1. *indicate a need to improve existing programs and/or services; or*
2. *demonstrate successful attainment of goals and objectives, indicating the program is well-positioned to enhance quality by expanding programs and/or services.*

Programs that meet the above criteria may submit proposals at any time during an academic year to the Quality Enhancement Advisory Committee. The membership of this committee is composed of.....

I. Availability of Forms. All forms referenced herein, instructions, and completed examples will be maintained and readily available at the assessment website of the Vice President for Institutional Research, Planning, and Effectiveness.

Appendix B: Committee on General Education Final Report 1985

Presented to University Senate April, 1985
Adopted with amendments by Senate
February 3, 1986.

COMMITTEE ON GENERAL EDUCATION
UNIVERSITY OF KENTUCKY
FINAL REPORT

The Committee on General Education was jointly appointed by the Chancellor of the Lexington Campus and the Senate Council in September 1982. It was charged with responsibility "for reviewing our current General Studies Program and, after study of current national trends and institutional opportunities and constraints, recommending modifications and improvements in the content and delivery of general education at the University of Kentucky." As indicated in the progress report issued by the Committee's initial chairman, Professor John Stephenson (University Senate Minutes, April 6, 1984), a considerable amount of time was spent in the first two years studying national trends and assessing the present state of general education at the University of Kentucky through interviews with deans and chairmen and through public hearings open to the entire academic community.

The process of re-examining general education at this institution is part of a nationwide trend in which we are neither pioneers nor the last in line. Indeed, within the last six months no less than three major reports have been issued on the current status of higher education in this country.* All of these reports are critical of recent developments in undergraduate instruction but not all make the same diagnosis of the problem, nor do they all prescribe the same cure. One argues for a stronger focus on traditional content or subject matter; another suggests that more attention be given to the "methods and processes, modes of access to understanding, and judgment that should inform all study." What is obvious to everyone is that no one curriculum, however wisely and imaginatively structured, is appropriate for all institutions. Differences in student body, faculty, institutional resources, and institutional missions necessarily affect the type of program that is most desirable, and the Committee has attempted to keep such factors in mind.

Professor Stephenson's progress report outlined some assumptions and concerns which preoccupied the Committee in its deliberations. It seems superfluous to repeat all of them here, but it might not be out of place to list those which loomed rather large as we developed specific recommendations for changes in the general education program at the University of Kentucky.

*"Involvement in Learning: Realizing the Potential of American Higher Education" by the study Group on Conditions in Higher Education, (The Chronicle of Higher Education, October 24, 1984, 35-49); "To Reclaim a Legacy" by W. C. Bennett (Chronicle, November 28, 1984, 16-21); "Integrity in the College Curriculum; A Report to the Academic Community" by the Association of American Colleges (Chronicle, February 13, 1985, 12-30).

These concerns were fairly widespread both among Committee members and among faculty, students and administrators who took part in the hearings and interviews. They include the following:

1. The need for greater coherence in the General Education Program. The present system of allowing individuals to choose five out of eight areas and to select a wide variety of courses in each discipline says little to students about the connected character of human knowledge and provides little insight into what kinds of knowledge an educated person ought to have. Under such conditions the rationale for course selection becomes a matter of personal bent or is dictated by the requirements of one's major department. The Committee believes that although students should not be committed to a lock-step education, there are certain skills and certain educational experiences which are appropriate for all undergraduates.
2. The need for deepening all students' awareness both of their own cultural heritage and of non-western traditions. The shortcomings of our present general education program in this area were a frequent subject of criticism in our hearings and interviews, and many other institutions of higher learning are struggling with similar problems. The Committee feels strongly that the study of Western civilization should have a central place in the undergraduate curriculum for all undergraduates. It also seems clear that, amid the growing interdependence of nations and cultures, all students should be aware that the western way of structuring reality or manipulating symbolic forms is not the only way. Some experience with non-western traditions or with traditions that include non-western perspectives is a necessity.
3. The need for integrative thinking across disciplinary lines. For very solid academic reasons, individual disciplines have traditionally been a most effective and efficient mechanism for developing and transmitting knowledge. The Committee feels that blurring disciplinary lines in all areas of instruction is neither possible nor educationally desirable. At the same time, however, we believe that much benefit would accrue to students and faculty alike from seeing that these divisions of knowledge are the product of human invention and that what is learned in and through the disciplines is necessarily limited in scope. Much is to be gained by paying attention to the interconnections of human knowledge and to the ways in which one area of knowledge impinges on another.
4. The need for ongoing development of writing skills. The nature of the problem here has been discussed at length on this campus, and the recent decision of the University Senate to strengthen the University writing requirement is one important step in alleviating the difficulty. However, if our students are to continue to mature intellectually, writing must be integrated into the learning process. For this reason we believe that all general education courses should include a writing component.

5. The need for placing a high value on general education within university priorities. The conflicting demands of career education and general education are well known. However, even in practical terms general education is an extremely valuable component of the students' undergraduate experience. In the rapidly changing world of work, specific training for a career or a profession quickly loses its usefulness, and the skills needed to meet new challenges (e.g. reasoning, writing, speaking) are precisely the ones promoted by the general education program. More importantly, if the University is to be faithful to its stated aim of producing "men and women of intellectual interest and achievement, men and women possessing character, ideas, ingenuity, moral responsibility and general competence" (University Bulletin, p. 11), the program in general education must occupy a more prominent position in institutional priorities than it now does. As citizens of the Commonwealth seeking to enrich their own personal lives and to become responsible members of the community, our students have a right to expect that we will provide them with the very best curriculum, the very best faculty and the very best resources in general education that we can muster. To do this will require both a change in outlook on the part of faculty and administrators and a reward system that reflects our seriousness of purpose in this regard.
6. The need for ongoing oversight of the General Education Program. If Ernest Boyer's metaphor of general education as a spare room which everyone wants to use but no one wants to take care of is apt, the Committee feels that a good "straightening up," however thorough or well executed such a reorganization might be, is not enough. A general educational program needs both to change and to remain the same; it needs to meet new exigencies and preserve essential values. This goal can be attained only through continual scrutiny and supervision by individuals who are charged with the authority and responsibility to maintain good academic standards in the program and to respond to new circumstances.

Over the past seven months the Committee has attempted to articulate the above concerns and assumptions in the form of specific recommendations for changes in the general education program at the University of Kentucky. In doing so we wrestled not only with the problem of existing and potential resources but with the role of the University as a very complex institution with multiple responsibilities and constituents. As is evident in the recommendations listed below, we struck a middle course between retaining the present system and suggesting a revision that would radically orient the institution's resources to general education. In the conviction both that the present program is inadequate to the current needs of undergraduate students and that the University will and should continue a very strong commitment to such functions as graduate education, research, and service, we opted for a series of changes which we believe is a substantial and significant improvement over the present system and which is consonant with the University's complex mission.

The existing program of general education is the product of about two decades of development, some of it through planned change and some through haphazard accretion, deletion, or revision. Working to alter such a system will take time and will involve rethinking many of the things we have taken for granted in general education over the years. We believe, however, that such a process must begin if we wish to provide students with a stronger, more coherent, and more timely undergraduate experience at the University of Kentucky.

In making recommendations for change, the Committee might have presented a list of existing or potential courses which could be used to satisfy the general studies requirements outlined below. However, except in the areas of basic skills - writing and mathematics - we chose to present a more general format for two reasons. The usefulness of a specific course list is predicated on the acceptance by the University community of the proposed revisions in general education. Prior to that decision the lengthy study required to establish such a list is premature. Furthermore, we believe that the selection of such courses is a task better left to a representative group of faculty and students who have been vested with the authority to make decisions on the basis of the goals of the general education program and a careful scrutiny of the courses themselves. If the selection of courses is a matter of public debate, we think the result will be endless frustration for all concerned. Thus, the Committee foresees that if the proposed changes are adopted, there will be need for a committee to evaluate individual course offerings as appropriate or inappropriate to the new general studies program. To assist that committee's work we have set forth in Appendix A our conception of the criteria which should distinguish general education courses from other offerings in the curriculum.

One last but not insignificant point about the recommendations listed below: The Committee believes that the term "general education" has become a pejorative or, at least, an inadequate term for designating an important dimension of the University's responsibility. "University Studies" is, we think, a better title for conveying the idea that general education is an integral part of all students' academic experience and that the program, calling as it does upon the resources of more than one college or academic unit, represents a fundamental commitment of the entire institution.

THE UNIVERSITY STUDIES PROGRAM

The University Studies Program is designed to provide undergraduates with a broad liberal arts education in the expectation that such education will assist them in defining and pursuing goals which are important to themselves personally and which contribute to the well-being of society as a whole. The Program entails the development of certain skills, knowledge, and perspectives which will at once aid individuals in becoming both more self-confident and more self-critical, open to new developments in all areas of human experience, and sufficiently trained to evaluate these developments in an intelligent fashion.

More specifically, the intellectual skills which should be enhanced in the University Studies Program include the following:

- a) To communicate effectively in both spoken and written languages.
- b) To deal with data and with mathematical symbols.
- c) To think critically--to abstract, analyze, synthesize and evaluate, and to understand the nature of thought.
- d) To learn on one's own.
- e) To employ the scientific method.
- f) To create and to express creativity.
- g) To adapt to new circumstances (that is, to apply learning).

The Program seeks to introduce students to the traditional areas of the Humanities, the Sciences and the Fine Arts and to help them develop a perspective on their own culture and on that of others, on the issues and responsibilities of citizenship, on systems of personal and social values, and on time itself through study of the past and through analysis of possible futures. In all of these pursuits the most pervasive goal is the development of intellectual habits which will prepare students for the future and will promote lifelong learning.

In light of these aims, the requirements of the University Studies Program are as follows:

OUTLINE

- I. Basic Skills
 - A. Mathematics (College Algebra, or exam, or ACT 25, or Calculus)
 - B. Foreign Language (Two years of high school or one year of college)
- II. Inference and Communicative Skills
 - A. Calculus or Logic and Statistics 3-6 hrs.
 - B. University Writing Requirement (English) 6 hrs.
 - C. Oral Communication Requirement 3 hrs.

III. Disciplinary Requirements

- A. Natural Sciences (Two-semester sequence in one discipline) 6 hrs.
- B. Social Sciences (Single course in each of two separate disciplines) 6 hrs.
- C. Humanities
 - a. Survey from Greece to the Present or
 - b. Two courses in a single humanistic discipline, or
 - c. Freshman Seminars (two) 6 hrs.

IV. Cross-disciplinary Requirement

Each student must take a pair of complementary courses which are designed to demonstrate the interrelationship of the disciplines. These courses may be from different departments in a single area (i.e. humanities, social sciences, natural sciences) or may couple two different areas. 6 hrs.

V. Cross-cultural Requirement

Each student must take one course which deals primarily with the Third World or with a non-Western civilization. 3 hrs.

39-42 hrs.

NOTE: A course taken to satisfy a requirement in one area of general studies cannot be used to satisfy a requirement in another area of general studies, except that calculus may be used to satisfy both I-A and II-A.

DESCRIPTION AND RATIONALE

I. Basic Skills

- A. Mathematics: The University Studies requirement in this area may be satisfied through one of the following options:
 - a) Completing one course in College Algebra and Analytic Geometry,
or
 - b) Passing a competency examination (without University credit),
or
 - c) Passing a course in calculus.

Rationale: The aim of this requirement is to ensure that all students possess some skill in symbol manipulation and graphic presentation of data. Frequently this skill is acquired in secondary school programs, and the Committee expects that before long all entering students will have achieved this level of competency before they come to the University.

- B. Foreign Language: The University Studies requirement in this area may be satisfied through one of the following options:
- a) Completion of two years of a foreign language (modern or ancient) at the secondary school level, or
 - b) Completion of two semesters of a foreign language (modern or ancient) at the university level.

Rationale: Since language is the principal medium through which a culture is transmitted, the Committee feels that competency in a foreign language is one of the most useful means of increasing students' awareness of the diversity in human society and broadening their understanding of a complex world. What the Committee has in mind here is the ability to read a foreign language at a level that will provide access to a foreign culture (i.e. the ability to read newspapers, magazines, etc.). We are under no illusion that the above requirement constitutes adequate preparation for this purpose. But within the constraints of other pressing needs and of our resources, it is a step toward that goal and an affirmation of the role that language study should play in a university education. We anticipate that as this requirement becomes widely disseminated, more and more of the responsibility for elementary language instruction will be assumed by the secondary schools and that more and more entering students will be prepared to pursue additional language study in this area with confidence and for personal satisfaction. Satisfactory completion of secondary school courses will be accepted as automatic fulfillment of the requirement in the University Studies Program. Competency examinations of incoming freshmen may be administered and the results used to assist the secondary schools, wherever necessary, in strengthening their foreign language programs. Foreign students, whose native language is not English, are not required to take an additional foreign language.

II. Inference and Communicative Skills

- A. Calculus or Logic and Statistics: The University Studies requirement in this area may be satisfied through one of the following options:

Option 1: Completion of a course in calculus.

Option 2: Completion of a course in formal logic, plus a course in statistics where the goal is to help students reach an understanding of the modes of reasoning in statistics and the uses and misuses of statistics in everyday life, and to acquire the ability to deal critically with numerical arguments, rather than to gain a knowledge of specific methodological procedures.

Rationale: For many students a knowledge of calculus is, if not mandatory, at least useful in the pursuit of their major discipline. Calculus is also essential for understanding a great deal of modern technical thought. For these reasons the Committee believes it ought to be part of the required curriculum for a large segment of the undergraduate student body. Other students, however, who have little need of calculus, will be better served through training in logical argument and statistical analysis.

- B. University Writing Requirement (English): This requirement may be satisfied through completion of the stipulations outlined in the Writing Requirement endorsed by the University Senate in the Fall of 1984 (Senate Minutes, November 12, 1984, pp. 8-11).
- C. Oral Communication: This requirement may be satisfied through completion of a course or a series of courses in oral communication skills.

Rationale: It is widely believed that students need improvement in their oral communication skills as much as in their writing ability. Such a requirement is being added to the general education curricula in many universities today and was recently incorporated in the University of Kentucky Community College general education curriculum.

III. Disciplinary Requirements

- A. Natural Sciences: The University Studies requirement in this area may be satisfied through completion of a two-semester sequence (totaling no less than 6 hours) in any of the physical or biological sciences.
- B. Social and Behavioral Sciences: The University Studies requirement in this area may be satisfied by completion of one three-hour course in each of two separate departments in the social and behavioral sciences (e.g. Anthropology, Economics, Geography, Political Science, Psychology, Sociology).

- C. Humanities: The University Studies requirement in this area may be fulfilled by choosing one of the following:
- a. A two-semester survey in one of the humanistic disciplines e.g. English, Philosophy, History, Foreign Language in Translation, Art History, Theatre, Musicology) spanning the period from classical Greece to the twentieth century.
 - b. Two courses in a single humanistic discipline.
 - c. Freshman Seminars (two)

Rationale: The Committee believes that the traditional division of learning into three distinct areas (natural sciences, social sciences, and humanities) retains its usefulness, and we are convinced that mandatory exposure to all three branches is essential if the students' undergraduate experience is to have adequate breadth. In the natural sciences we feel that a two-semester sequence in a single science is the only way to provide a proper introduction to the methods of scientific inquiry. In view of the diversity of social science methodologies, we believe that a single course in two different disciplines would provide a better introduction than two semesters in one discipline.

In the humanities our aim is to provide an introduction to some of the major intellectual, social, political, ethical and aesthetic traditions and institutions of the Western world in order that students may better understand their own cultural heritage. Students choosing option a. will take a sequence of courses, not unlike many of those presently offered in general studies, which extends from Classical times to the twentieth century. In option b. the two courses may be narrower in scope but must encompass more than a single author, genre, or monument or time period. Option c. is a special new program, which is described in Appendix B.

IV. Cross-disciplinary Requirement.

The University Studies requirement in this area may be fulfilled by the completion of two courses which have been specifically designated as paired offerings. Such courses may be within single a broad area of study (i.e. humanities, social sciences, natural sciences) or may cross over these areas. However, to be included within cross-disciplinary studies such courses, in addition to following the guidelines for University Studies courses, must meet the following criteria:

- 1) The courses must involve more than one discipline.
- 2) The content of cross-disciplinary courses must be broad in scope and must deal with such matters as philosophical dimensions, disciplinary assumptions, historical perspectives and issues of value rather than with technical or professional information.
- 3) The syllabi of these courses must reflect joint planning on the part of the participating departments and must indicate the nature of the overlap between the two courses (i.e. the assumptions, principles, goals, source materials, methodologies, etc. which will be compared and/or contrasted in the two offerings).
- 4) The paired courses must have some common readings.

Rationale: The major portion of general education at the University of Kentucky has been and will continue to be centered around individual disciplines. This arrangement has proved to be an effective and efficient method over the years. With such a system, however, we easily create the impression that knowledge can be nicely categorized and that what is learned in one discipline has little to do with what is learned in another. To counter this misconception the Committee feels that students should have some experience with courses which go beyond disciplinary distinctions and which seek to demonstrate the interrelated character of human knowledge. It is anticipated that, with only a modicum of revision, large numbers of courses already being taught at the University will serve this purpose. Many current offerings in literature, philosophy, history, and fine arts, as well as some in the social and natural sciences, will lend themselves to this kind of pairing. We wish also to encourage departments to develop new offerings which will effectively relate one area of study to another.

We suggest that these courses be taken within two consecutive semesters, and for this reason, only courses which are offered on a fairly regular basis should be included in the University Studies Program. Because we believe that general education courses should be spread throughout the four years of undergraduate study, a significant number of upper division offerings will be included in Cross-disciplinary studies as well as in the Cross-cultural component.

It is particularly important that the director have the necessary authority and ability to encourage and subject to the approval of the appropriate Vice-Chancellor for Academic Affairs, even require the initiation and development of the Cross Disciplinary courses.

V. Cross-cultural Requirement.

The University Studies requirement in this area may be fulfilled by the completion of a three-hour course which deals primarily with the Third World or with a non-Western civilization (i.e. a civilization outside the Judaeo-Christian tradition).

Rationale: The Committee views this requirement as a natural counterpart to its earlier recommendation (i.e. in the Humanities Requirement) that all students take a sequence of courses dealing with the traditions and institutions of the Western world. It is highly important that our undergraduates develop some appreciation for cultural heritages which are not part of the Western tradition but which nonetheless have impressive histories of their own. We concur with a suggestion made by the American Association of Colleges in its recent report on higher education that "colleges must create a curriculum in which the insights and understandings, the lives and aspirations of the distant and foreign, the different and the neglected, are more widely comprehended by their graduates." Such understanding, we believe, is valuable not only in its own right but as a way in which students can acquire a larger perspective on their own heritage. The ideal here is for all students to have experience with a culture outside the Judaeo-Christian tradition, and there are currently a good number of offerings in History, Geography, and Anthropology which meet this standard. However, the Committee recognizes that this ideal may be achieved only over a period of years, and in the interim some offerings within that tradition may be accepted as satisfying the Cross-Cultural component. If so, we recommend that courses included in this component meet the following criteria:

- 1) Courses dealing with cultures or sub-cultures that are markedly different from the students' experience are to be preferred to courses which are close to that experience.
- 2) Every effort should be made to emphasize those aspects of a culture or sub-culture which differentiate it from the traditional western outlook.
- 3) Where possible attention should be focused on different aspects of a culture including folk as well as elite traditions.

What must be remembered in the selection of courses for this requirement is that the benefit to students will be in direct proportion to the amount of "culture shock" involved, i.e. the degree to which students must initially struggle to comprehend how it is that people can think and act in different

ways. For a discussion of the type of courses the Committee has in mind see Appendix C. The Committee feels that departments should be encouraged to design and submit new courses which will come closer to achieving the ideal than do most offerings which are currently on the books.

ADDENDA

Writing: There are several dimensions to the University Studies program which the Committee would like to underscore in its recommendations. The first of these has to do with writing skills. If our undergraduates are to continue to mature intellectually, writing must be integrated into the learning process; it must be a presence in the students' total educational experience. As a way of ensuring this presence, the Committee recommends that all University Studies courses, except for those in Basic Skills, include a writing component. The nature and extent of this component will vary from course to course, but we believe that writing is the single most effective means of developing an individual's critical, synthetic, and expressive abilities. It is worth noting in this connection that formal writing assignments (e.g. term papers and research reports) are by no means the only kind of writing that can be used to advantage. Summaries, syntheses, critiques, and exercises which compel students to write in response to what they read and hear can all contribute to the art of learning.

Ethical Dimension: The Committee recommends that the ethical dimension of education be an integral part of the University Studies program. Instructors should be encouraged to raise ethical issues wherever appropriate and to explore with their classes the moral arguments, criticisms, ideals, and consequences which are inevitably bound up with human decisions. The purpose here should not be to indoctrinate or to argue a particular point of view but to assist students in defining for themselves what is entailed in such concepts as valor, temperance, justice, and the like, and what it means to act responsibly in the public and private spheres.

Computer Literacy: It is a truism that in the future all students will have to possess some degree of computer literacy. However, the Committee feels that individual needs in this area are so diverse that it is inappropriate for us to establish a universal requirement. Individual departments should establish suitable levels of competency for their majors and should see to it that their students gain the necessary experience.

Active Learning: Finally, we believe that a special effort should be made in University Studies courses to promote active student engagement in the learning process. On this matter the Mortimer Committee ("Involvement in Learning...") has expressed the point very well: "To do a discipline means to speak it, to work with its primary methods, to follow its processes, and to adapt its perspectives. Active modes of teaching require that students be inquirers -- creators, as well as receivers, of knowledge." Through a variety of techniques, such as discussions, debates, simulations, oral presentations, and individual learning projects, instructors should assist students in developing intellectual initiative and creative habits of learning.

RESOURCES

At every stage of drafting its recommendations for changes in general education at the University of Kentucky, the Committee considered the problem of resources. It is our best estimate that through the reallocation of

existing resources and new monies the cost of implementing the University Studies Program will be approximately \$400,000. This estimate, which is based on enrollment figures for 1984/85 and on the class profile of 1982/83, can be affected by several factors which are difficult to assess at the present time. These include the total enrollment at the University, which has been declining in recent years; the principle of double counting (i.e. using a course to apply both to one's major and to University Studies), which will decrease under the new system; and student interest, which is affected by many things. Amid all these considerations it is important to remember that some resources will be made available through the changes that are involved in the new program, and in the area of Basic Skills the need for additional resources will decline as students come to the University better prepared to bypass these requirements. Most importantly, however, we should be mindful that we are discussing changes that will significantly improve the education of the entire undergraduate student body for years to come. In that light the Committee believes that the estimated additional costs are most reasonable, and we are convinced that with sufficient lead time the University can initiate the proposed revisions without inordinately taxing the system as a whole.

Implementation and Oversight: Implementing the University Studies Program will require a considerable amount of planning, and for this reason the Committee recommends the Fall 1988 as a target date for initiating the new requirements. Other implementation and oversight arrangements will be adopted by the Senate late in the Spring 1986.

AFTERWORD

The Committee believes that the proposed changes in the structure and content of general education at the University of Kentucky represent a substantial and significant improvement over what we have in the present system. The new program is more coherent and comprehensive, and it will, we are convinced, better prepare our students to meet the challenges they face in the coming decades. In that connection we would like to conclude with two reminders about what we all know. The first is that no format or structure is a guarantee of quality in instruction or learning. Quality comes from people, that is, from our faculty and students, not from structures. The success of University Studies will depend on the dedication and performance of those engaged in the process, not on the distribution of courses or the number of hours required in the program. For this reason we wish to reiterate the point made earlier about using our best faculty in University Studies courses and about promoting excellence in this area through an appropriate reward system.

Secondly, adequate time will be needed to implement and to evaluate the new system. In the initial stages there will inevitably be false starts, shortcomings, and perhaps some major blunders. That fact should not be surprising. It will be a time for initiative and forbearance, for vision and for criticism, for individual energy and joint action. We think that the process of putting the new program into effect can be as stimulating and productive for the faculty as for the students. Here is an opportunity, not just a task. After the University Studies Program has been firmly in place for some time, it will be appropriate to stop and take stock once again. The business of general education, like every other academic pursuit, should always be the object of periodic revision and timely new beginnings. We think the present moment is a time for such a beginning.

Courses selected for the General Studies curriculum once approved shall be subject to review as to the suitability of their continued inclusion at least once every six years.

Appendix A University Studies Courses

Although University Studies courses may sometimes function as an introduction to particular disciplines, their primary purpose is quite different from that of the usual departmental offerings. Their principal aim is to help students to become familiar with the broad dimensions of human knowledge, to develop an appreciation for the great diversity of approaches in human inquiry, and to experience some of the satisfactions of the intellectual life. Since this aim should be pursued at every level of undergraduate education, upper division courses in University Studies are most desirable. Within the disciplinary areas, as well as the cross-disciplinary and the cross-cultural components of University Studies, courses should be designed with the following criteria in mind:

- A. They should provide a reasonably comprehensive coverage of the basic principles, concepts, and current state of knowledge of the area described in the course title and description.
- B. Without becoming bogged down in detail, they should provide a general understanding of the methods of study that are germane to a particular area of study.
- C. They should provide some sense of the historical developments that have led to the current body of knowledge in a particular field.
- D. They should demonstrate how a particular body of knowledge fits into the larger body of human knowledge as developed in related disciplines.
- E. They should indicate how the content or skills imparted in a particular course might be useful or important in the students' own life.
- F. They should be taught in language that is free of jargon and (except in the case of basic skills and sequential courses) should normally assume no prior knowledge of the subject.
- G. Through a judicious selection of illustrative material and through the presentation of differing viewpoints they should seek to develop the students' spirit of inquiry and an appreciation of the joys of intellectual pursuits.
- H. Wherever appropriate they should raise questions of value and should explore the philosophical, ethical, and aesthetic consequences which are entailed in all human decisions.
- I. They should contain a writing component.

- J. Through a variety of teaching methods they should seek to promote active student involvement in the learning process.
- K. They should involve methods of evaluation that go beyond the objective (e.g., multiple choice) examination. Among the options here are shorter, written examinations or quizzes, essays within or outside the classroom, and oral presentations.

Appendix B Freshmen Seminars

The Freshmen Seminars are a two-semester sequence of courses focusing on some of the major intellectual, social, political, ethical, and aesthetic traditions and institutions of the Western world from Classical times to the twentieth century. In addition to introducing students to a substantial number of issues and answers that have shaped the Western tradition, these courses are designed to provide a stimulating environment in which individuals can develop an appreciation for the challenges and satisfactions of intellectual inquiry. The courses will be taught in sections of 20 students by experienced faculty, and the material will be organized around a theme, a principle, or a set of issues established beforehand by the individual instructor. Emphasis will be placed on the relevance of problems and issues in the western tradition to twentieth century culture.

Rationale: One common criticism of education at large universities is that students frequently do not have an opportunity to participate in a small class with experienced faculty until they become juniors or seniors. At a critical stage in their university career when they are just beginning to develop academic skills and are establishing their attitude toward learning, they have little opportunity to engage in extended classroom discussion, to share ideas with their peers and to experience in a personal way the challenges and satisfactions of intellectual pursuits. The Freshmen Seminars are designed to alleviate this problem in a limited way. Their purpose is threefold: a) to introduce students to some of the issues and answers which have shaped the western tradition and which have had an impact on modern ways of thought; b) to pursue this goal through integration of materials from a variety of disciplines; c) to stimulate the students' spirit of inquiry and to assist them in developing an appreciation for the values of the intellectual life. Though the Committee believes that this kind of academic experience is desirable for all students, it seems impractical at this time to make it a universal requirement. We recommend that such a program be initiated for approximately 400 students (20 sections) and that after a period of trial and evaluation a decision be made about expanding it.

Appendix C Cross-cultural Courses

The following is suggested as a scale of priorities for courses to meet the cross-cultural requirement. It must be borne in mind that (1) represents the minimum standard and (5) the ideal. The committee which initially certifies courses in this area may be obliged to accept any course that falls within priority (1); later the committee may be able to insist that courses satisfy some higher standard.

- (1) The culture studied should be one that is markedly different from that of the students and preferably outside the Western or Judaeo-Christian tradition. There are many Anthropology courses and a number of Geography, History, and Political Science courses that would meet this criterion.
- (2) The content of the course should be devoted largely to the study of culture, rather than of politics, economics, or historical events. There are Anthropology and probably some History courses that would satisfy this criterion.
- (3) The course should expose students to many different aspects of a "foreign" culture, including folk as well as elite traditions, in order to make them aware of the interrelatedness of the different aspects of culture. For the time being this criterion seems to be most nearly met by Anthropology courses and possibly some Geography courses.
- (4) The course should expose students to a non-Western culture that has or had a significant recorded history and a well developed philosophical tradition of its own, to dispel any idea that ours is the only "civilized" mode of thought. For the time being there are no courses on the books that adequately satisfy this criterion, except for occasionally-taught Anthropology courses on Egyptian or Maya civilization.
- (5) The course should expose students to a cultural tradition that is still alive and viable in the present-day world; in other words, a culture that they are quite likely to meet face-to-face at some point in their future lives. For the time being there are no courses that meet this requirement.

1026C

Respectfully submitted,

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**Appendix C: Memorandum from Lou Swift Proposing Revisions of USP
1999**

MEMORANDUM

TO: Senate Council

FROM: Louis J. Swift

DATE: March 24, 1999

RE: Revisions in University Studies

For more than a year and a half the USP Committee has been studying possible revisions in the general education program here at the University of Kentucky. During the fall and early spring terms of this academic year, the committee met regularly and considered each of the requirements. In several cases we invited relevant departments to discuss the rationale for a particular component of the USP and the nature of the courses included within that component. In other cases we investigated what is being done at other institutions in order to broaden our perspective and gather ideas for possible changes in University Studies.

It goes without saying that our discussions were spirited and lengthy, our viewpoints very diverse, and our path to consensus marked with many detours. The committee examined each requirement, considered possible revisions, and made its best judgment in light of academic quality, current and potential resources, and the prospect of obtaining endorsement from the faculty and students across campus. After many weeks of debate, we were able to arrive at a consensus regarding ways to simplify and improve University Studies in some areas; in others we thought it best to retain the present structure, at least for the immediate future.

With respect to the **Basic Skills** requirement in writing and speaking, we are aware of concurrent developments which are related to our deliberations. The Committee on the President's Initiative on Undergraduate Education

proposes an integrated approach to helping students develop their written and oral communication skills through coordinated offerings in these areas. We applaud this effort, and only wish to encourage that there be no decrease in the amount of attention devoted to instruction in writing and speaking English.

With respect to the **Foreign Language** requirement, we see no need at present to suggest changes. Both because a large portion of our entering students satisfy this requirement through the secondary schools and because the international dimension of undergraduate education will increase over the years, we believe that a retreat from this requirement is inimical to the best interests of undergraduates.

With respect to changes in both the **Basic Skills** requirement and the **Inference** requirement in mathematics, the Task Force chaired by Dr. William Bush and Dr. Donald Sands will be making recommendations by the end of the spring term. We look forward to this development, and we think it premature to suggest revisions in these areas of University Studies until the report of the Task Force has been submitted and carefully studied. However, since the skills acquired in the areas of Basic Skills and in Inference are very useful for subsequent study, the Committee recommends that students be strongly encouraged to satisfy these requirements within the first two years of instruction.

With respect to the **Disciplinary** requirement, the **Cross-Disciplinary** requirement and the **Cross-Cultural** requirement, we believe that substantial changes are in order. What follows is a series of recommendations together with a supporting rationale for each proposal.

Recommendation 1: Change the disciplinary requirements in humanities and natural sciences to allow students to satisfy this portion of University Studies by taking any two courses on the current list in humanities and natural sciences. Thus, an undergraduate might take, for example, one course in literature and one in history for the humanities requirement, and one course in chemistry and one in biology for the natural science requirement. Students will retain the option of taking two courses within the same discipline if they so choose.

Rationale.

Several considerations argue in favor of this change.

- a. The selection of USP courses in the social science category currently follows the recommended pattern for humanities and natural sciences. In fact, students satisfying the social science requirement must select courses from different departments.
- b. The change would make our requirements in humanities and social sciences consonant with the stipulations of the Statewide Transfer Agreement. Currently, for example, students at Eastern who take a biology course and a chemistry course and thereby satisfy the natural science requirement at Eastern have satisfied the natural science requirement in the USP if they transfer to UK. Consequently, students who are presently enrolled at UK (i.e., native students and transfers) are fulfilling the same USP requirements in different ways.
- c. Students taking an initial course in a particular discipline may find the discipline not at all to their liking or not at all suited to their talents. Under the current rules, they must take another course in the same discipline to satisfy the disciplinary area in USP. This tack seems not to be the best one for helping undergraduates appreciate the value of humanities or natural sciences.
- d. The availability of courses in the disciplinary requirement has been a problem. Students sometimes have been forced to delay taking the second course in the sequence after completing the first. This problem has created difficulties for some students in their effort to move toward graduation in a timely manner.
- e. In some disciplines it is not uncommon for students to take the two courses out of order, thereby losing much of the advantage of the sequencing.
- f. Some committee members have argued that breaking up the sequence in humanities and natural sciences actually offers students greater breadth of experience than does the current system. Under the present system undergraduates become acquainted with only one discipline; under the proposed change they would have experience in two.

In order to make the recommended change more beneficial to undergraduates, particularly non-majors, the committee encourages departments to make their

USP offerings as self-contained as possible. In this way individuals choosing to take only one course in a particular area will obtain a more coherent understanding of the discipline.

Recommendation 2: Abandon the **Cross-Disciplinary** requirement and allow students to choose six hours of free electives at the 200-level or above which are outside the department.¹

Rationale.

The Cross-Disciplinary requirement has been the most controversial portion of University Studies. Difficulty in maintaining links between the paired courses has meant that in many instances the connections between one discipline and another have been muted or totally lost. Furthermore, in the minds of many, the long list of paired courses in the schedule book has made advising more difficult and more time-consuming than is warranted.

A very significant problem connected with the Cross-Disciplinary requirement is the availability of offerings. Because paired courses often have different enrollments and are not always offered when needed, students have been forced to wait a long time to complete the requirement or, in some cases, have had to select a second pair of offerings in order to graduate in a timely manner. For this reason the Cross-Disciplinary requirement seems to be adversely affecting the graduation rates of the University of Kentucky.

Recommendation 3: Expand the definition of the **Cross-Cultural** requirement to include courses which focus on diversity within the United States.

Rationale.

It has been demonstrated that the Cross-Cultural requirement has broadened our undergraduates' appreciation of people and cultures different from their own. At the same time, the committee is convinced that students have much

¹In the College of Business & Economics departments are defined as areas.

to gain from examining in a critical way the many diverse aspects of American culture. On that account, we propose that courses which reflect those differences be included in this component of the USP. We recommend that diversity be defined in terms of the University's non-discrimination policy as enunciated in the University of Kentucky *Bulletin* and that the USP committee follow this policy in reviewing new courses to be included in this part of University Studies.

The committee debated the prospect of using one of the proposed electives in University Studies to add a second required cross-cultural course (focusing on the United States) to the existing non-western and third world requirement. Not knowing whether this change would significantly add to the problem of "bottleneck courses" (*i.e.*, courses which pose difficulties for students because of inadequate sections), we opted first to expand the list of acceptable offerings within the current Cross-Cultural requirement in hopes that over time it might be possible to incorporate within general education six hours of cross-cultural studies, including one required course focused on non-western or third-world cultures and another focused on cultural diversity within the United States.

Clearly, the proposed changes in University Studies do not constitute a major overhaul. Through surveys, interviews, and conversations with many faculty, staff, and students over the past two years, it did not appear to us that there is a groundswell for such a comprehensive undertaking. However, we believe that the Committee's recommendations represent a significant step toward the goal (set forth in the current Five Year Plan) "to simplify and improve the University Studies Program."

We will be happy to discuss this proposal with the Senate Council if the members so desire.

Thank you for you kind consideration.

**Appendix D: Expanding Horizons: A General Education Program
for the 21st Century**

&

Expanding Horizons Grant Proposal

Expanding Horizons: A General Education Program for the 21st Century

Mission Statement

Expanding Horizons, the University's general education program, aims to provide students with the means for acquiring a broad and enriching liberal arts education appropriate to the twenty-first century. Its educational goals accordingly are ambitious. Expanding Horizons intends to broaden students' understanding of the environmental, social, and cultural context of their lives, as well as to promote an appreciation for cultures other than their own. It also seeks to enable students to obtain a solid foundation in the knowledge, scope, and methods of a single discipline of the student's choice as a major, and to enhance a student's appreciation for the value, approach, and boundaries of other disciplines. These disciplinary and multidisciplinary objectives carry with them a concern to inculcate in students: (1) the ability to produce work that conforms to the governing standards of scholarship in the sciences, social sciences, or humanities; and (2) the means to communicate that work orally and in writing in a clear, concise, and persuasive manner.

Because students who explore the expanding horizons of the twenty-first century university must be well-prepared to meet the varied expectations and demands of an increasingly information-based world, such an education has clear practical benefits. These vocational dividends will be founded upon the intrinsic benefits of a broad and well-rounded general education: curiosity, wonder, open-mindedness, and intellectual rigor. These values are the enduring qualities of mind and character that stem from grasping the process of learning as a lifelong exercise and are instilled by a broad, liberal education; such qualities characterize an educated citizen who is truly engaged in the commonly shared world and its shaping forces, ideas, and controversies.

Program Structure

Expanding Horizons constitutes a hybrid general education model that combines elements of a core experience with distribution requirements and academic skills development. The Core consists of two components: Core I consists of a common course to be completed by all first-year students, and Core II consists of a set of options from which students must choose one course. The Core II options share foundational characteristics but differ in terms of topics. The distribution requirement is satisfied by completing one additional course in each of three cognate areas: humanities and arts; social sciences, and natural sciences. The academic skills requirements of the program are outlined below in relationship to current USP requirements.

The Core

Change, in its many manifestations (e.g., transformation, growth, atrophy, evolution, revolution, progress, degeneration, etc.), serves as a common framework for the organization of each Core Course. Although different in content, the various Core options share a set of goals: increase knowledge, alter perspectives, shape attitudes, and build cognitive skills. Each

of these goals is essential to the development of cosmopolitan citizens who are capable of enriching society at all levels.

Core Course Principles

- Students will complete Core Course I and one of the three Core Course II options
- Core courses emphasize process over content; feature multicultural, interdisciplinary perspectives; and use multimedia pedagogy in a seminar format
- Each Core course is communication intensive (oral and written), emphasizes inquiry-based learning, and is reading extensive over a variety of genre
- Course content will combine prescribed topics and source materials with discretion of individual instructors
- Core instructors will be selected from a variety of departments and colleges across the University and will be supported by a substantial faculty development program that includes explicit collaboration among instructors
- Instructors will intentionally seek connections between core courses, other program requirements, and first-year experiences
- Each Core course will reference knowledge, perspectives, and methodologies of various disciplines in the social sciences, humanities, and natural science as well as successful interdisciplinary approaches

Core Course Descriptions

Core Course I

Core Course I offers a thematic, historical, and comparative exploration of how natural science, social science, the arts and humanities, culture, and religion guide human beings in the quest for knowledge, meaning, and values. The course will examine the scope and limits of different approaches to knowledge, the underlying assumptions of disciplinary inquiry, and multidisciplinary perspectives.

Core Course II Options

Communities pursues a historical and topical survey of the evolution of human communities from antiquity to the present with an emphasis on changing culture and social characteristics of various kinds of communities ranging from utopian collectives to modern cities. Relying on empirical and theoretical perspectives, this course will speculate on the future of the community and human habitat in response to transformative forces (e.g., politics, economics, technology, knowledge) that will shape social interactions on local and global scales.

Ecology presents a thematic and historical treatment of changing perceptions, knowledge and relationships between humankind and the natural environment from ancient myth to modern science. The broad meaning of human ecology will be considered by examining scientific, social, economic, and spiritual dimensions to the question of humankind's proper relation to the global ecosystem and implications of economic competition and ecological limits.

Journeys considers the broad spectrum of changes that influence and shape individuals in the context of a variety of journeys that include intellectual and spiritual discovery; physical, cognitive, and social development; group social assimilation and exile; participation in and impact of social change (revolution and evolution); travel versus quest; the search for origins and destiny; the discovery of place; and the meaning of home.

APPLICANT

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AMOUNT REQUESTED

Year I - \$112,000 Year II - \$146,000
Total - \$258,000

EXECUTIVE SUMMARY

The proposal is to assist the University of Kentucky (UK) in implementing a creative general education program that exploits the character and strengths of a large research university. The program consists of a cohesive set of interdisciplinary courses, a structure that forges strong connections across courses and among instructors, and advanced pedagogy that emphasizes creative learning. With these attributes, the program is one of the best representations of the ideals of undergraduate education at research universities as set forth in the recent Boyer Commission Report of 1998. Funds are requested to support an aggressive implementation plan designed to establish this program as a permanent alternative to general education for first-year students at UK. The implementation plan includes the following: 1.) program and course development, 2.) implementation of a one-year pilot program that includes a comprehensive assessment of student learning, 3.) one year of full implementation of the program including additional assessment, and 4.) an explicit strategy to produce administrative changes that will affect the transition of the program from experimental to permanent status. The program outlined here and the proposed implementation plan can serve as models for other research universities interested in improving general education.

RATIONALE

Despite being heralded as the envy of the world, American higher education continues to suffer pervasive and steady criticism. At the core of this discontent is concern with what graduates do not know, can not do, and have not learned. Targets of condemnation vary over a broad range from flawed and irresponsible instructional techniques to the more contentious philosophical disputes over curriculum and purpose. One particularly area under persistent assault is general education. What do we want all our graduates to know and what should they be able to do regardless of their speciality? Nowhere is this concern more conspicuous than in large research universities; institutions routinely accused of sacrificing broad, liberal education to the veneration of research and growing deference to disciplines and professions. Most graduates do not go beyond the baccalaureate degree, and so it is reasonable to ensure that general education serves to enrich individuals and contributes to the betterment of society. Research universities have struggled for years to affect positive change that allows these institutions to succeed in producing well educated undergraduates while also meeting their obligations to create knowledge and train the next generation of scholars and college teachers. To solve this large problem is perhaps more than any one university can expect, but any significant progress will be applauded. The humble proposal presented here pursues that lofty aspiration. By finding a way to improve general education at UK, we hope to discover a path to reform that can be followed by others.

BACKGROUND

In 1993 the University of Kentucky (UK) began a creative experiment in general education called the Modern Studies Curriculum (MSC). This innovative program was initiated by the College of Arts & Sciences and supported by a grant from NEH. Although the College of Arts & Sciences has primary responsibility for general education at UK, other colleges do participate. Consequently, it was a large and diverse group of faculty from many departments and several colleges that actually developed the program. The central objective was to pursue curriculum reform that would address problems that continue to undermine general education at research universities. These problems include the arbitrary nature of distribution requirements; the incoherent structure of many general studies curricula; the absence of meaningful interconnections among components of the curriculum; inadequate preparation of students in core skill areas such as writing, oral communication, analytical problem solving, and creative thinking; the reluctance of faculty to invest their time and effort on general studies courses; and, perhaps most unfortunate of all, the failure to inspire students to become lifelong learners who appreciate the virtues of a broad liberal education.

MSC offered a way to address these problems. The program was legitimately regarded as a unique approach to general education at a research university. It embraced a visionary curriculum, creative approaches to pedagogy, and meaningful extracurricular support that served as a living-learning community. It offered students a rich intellectual experience; one designed to be vastly superior to the alternative general education curriculum at UK. It offered faculty and

graduate teaching assistants an unparalleled opportunity to engage in inspired teaching and to promote professional development.

Was MSC successful? The answer is yes and no. The undergraduates, faculty, and graduate students who participated in the program expressed equivocal adulation; these zealots were convinced of its success. So too were other faculty who knew about the program. There was growing sentiment that a program like MSC could revolutionize general education not only at UK but at any large research university. This optimism was further inspired by growing dissatisfaction with the existing curriculum. Opinions, inference, and speculation, however, are but weak surrogates for empirical evidence. Yet even here there was reason for optimism. As the data in Table 1 illustrate, MSC was profoundly successful with respect to retention; a concern that continues to challenge most public research universities.

Table 1: Graduation Rates for Students Completing MSC and Non-MSc Students Who First Enrolled at UK in Fall 1993

<u>Group</u>	<u>Graduated in 4 Years</u>	<u>Graduated in 6 Years</u>
MSC	51%	87%
1993 non-MSc	19%	51%

Despite the judgement of faculty, despite the program's profound impact on retention, despite the enthusiastic endorsement of students, and despite growing admiration of some administrators, MSC failed in the most conspicuous fashion: It ended!

There was no single reason for the demise of MSC nor any one individual to blame. A careful retrospective analysis has revealed a number of contributing factors. Among the salient causes are the nature of the overall institutional context in which MSC emerged, the ambiguous goals and long-term objectives of the program, the overly ambitious structure of MSC that proved to be excessively expensive and unduly burdensome, and the insular character of the program that isolated it from other vital elements of the University. Fortunately, it is now possible to avoid these mistakes and to take advantage of dramatic changes that have occurred at UK recently. Within this new environment, it is possible to establish an exciting new alternative to general education that can persevere.

Our optimism emanates from two key considerations. First, UK is in a period of unprecedented reform. There now exists an institutional context that is fundamentally different from the environment in which MSC struggled. Many of the old contextual problems that undermined MSC have disappeared. More important, the current climate at UK is not only conducive to reform, but it actually demands it. Second, we have the advantage of having engaged in a comprehensive analysis of the plight of MSC. Experiences and insights gained from an extensive postmortem study of why MSC failed provide valuable lessons with which to guide implementation of a new general education program.

How has UK changed? The University has embarked upon such a remarkable period of change that it seems as if we were reinventing the institution. Several factors are particularly

important here. First, in 1997 the Governor of Kentucky proclaimed higher education to be his number one priority. He and the Legislature developed a bold and comprehensive plan for higher education in Kentucky. A major part of that plan, which is now formalized in state legislation, is a challenge to UK to become one of the Top 20 Public Research Universities by the year 2020. The Legislature provided significant increased funding to support this transformation, and the University developed a strategic plan to realize this lofty aspiration. As a result, new faculty positions have been created, including endowed chairs and professorships, more support is available for faculty research and graduate education, and investment in the research infrastructure has increased precipitously.

Although UK's Top-20 aspiration implies an emphasis on research and graduate education, the leadership and faculty of the University clearly recognize that raising the stature of the University requires an uncompromising commitment to improving undergraduate education as well. Consequently, *The President's Initiative on Undergraduate Education* (see appendix i.) outlined a range of recommendations in 1999 for improving undergraduate education. An action plan has recently been devised to prioritize and implement these recommendations. The main thrust of the current reform effort is to realize the ideals for undergraduate education at a research university as articulated by the Boyer Report of 1998. The general goal is to shift the emphasis from teaching to creative learning. Some of the ways that UK intends to realize that goal include the following:

- More opportunities for undergraduates to engage in research and to work closely with faculty and graduate student mentors
- implementation of discovery seminars in which leading faculty scholars expose first-year students to their scholarship in a small seminar setting
- greater reliance on problem-solving based instruction and peer mentors
- expanded use of information technology to affect course redesign and enhance course delivery in cognitive skill areas (e.g., math, writing, oral communication)
- stronger connections between academic affairs and student life through the development of living learning communities
- enriched training of graduate teaching assistants

For each of these innovations there is a precedent found among the nation's leading research universities. To implement one or two of these innovations at the same time, as has occurred at other universities, is impressive. To pursue an array of changes all at once is truly bold and courageous. Yet, that is exactly what UK has begun. This new and exciting institutional passion for educational reform reflects an attitude unprecedented at UK; one that was clearly absent during the MSC years.

An especially important component of the *President's Initiative* is the mandate to improve the general education curriculum. This objective is inspired by both a commitment to reform and the cumulative dissatisfaction with the current curriculum. This impetus to reform general education at UK is in striking contrast to the prevailing apathy toward general education that existed during MSC, which undermined its success.

A second important difference in the environment at UK today is that the University has begun its first ever capitol campaign. Optimism for the success of this campaign is justifiably high. As a part of the state's contribution to the Top-20 challenge, it provide a matching opportunity whereby 66 million dollars would be provided to UK if an equal amount could be obtained through private donations. The goal was to meet the state's match after a year of fund raising, but it took only three months to raise the money! The state has recently announced a second matching grant, which UK will again pursue through its overall capitol campaign. Pertinent to the present proposal, a significant portion of future funds generated through the capitol campaign will be available to support undergraduate education. The strategy for investing those funds, however, will be to expand existing experimental programs, rather than to fund new experiments. Thus, support from the Hewlett Foundation is critical in order to establish a rudimentary program that can then be sustained and expanded through a permanent commitment from the University.

A final point to emphasize is that concern for educational reform has been energized at the national level by two influential reports critical of the performance of research universities. Beyond the analysis of problems and deficiencies of general education at these institutions, both the Boyer Commission and the Kellogg Commission offer a variety of potential solutions. These reports have captured the attention of leaders at most research universities, and we can expect to see these institutions respond. Research universities are not known, however, for their institutional flexibility; these institutions seldom embrace dramatic or pervasive change. (Ants crawling through molasses is an apt metaphor for the process of reform at large research universities.) UK is in a unique position, however. By virtue of the level of the University's commitment to reform, the amount of new resources available to support such reform, and a cadre of new inspired leaders who embrace bold aspirations that depend on reform, UK may be best positioned among all research universities to realize meaningful change.

What lessons have been learned?

Beyond the much improved context in which to foster reform of general education, the present proposal exploits insights from a careful analysis of why MSC failed. The following constitutes a nonprioritized list of factors that will promote the success of this proposal.

1. Strategy for Implementation. It was as if MSC suddenly appeared, and then its sanguine advocates began to consider how the program might grow and perhaps even replace the extant general education program. Its impassioned apostles focused their attention on the program itself and failed to consider that the inherent virtues of MSC might not be sufficient to sustain it. The "sell itself mentality" precluded strategizing and planning necessary to secure a sustained institutional commitment for the program. That MSC was initiated by the Dean of Arts & Sciences seemed to create a false security. There was little or no effort to garner the broader institutional support needed to preserve the program should the program's founding father depart, which did indeed occur. Upon the departure of the Dean, MSC was without an administrative advocate. Last minute efforts to elicit such support was understandably futile.

The main thrust of the present proposal is to pursue an explicit strategy with which to collect and solidify the level of support necessary to institutionalize a new general education program.

2. Program Identity. MSC was always regarded as a College of Arts & Sciences program. This characterization evoked indifference from higher-level administrators, other deans, and faculty in other colleges.

The current plan is to place the new program under the Dean of Undergraduate Studies; a cross-campus dean who has direct responsibility for General Education at UK. From the outset, the program will be advertized as university-wide curricular alternative to the existing general education program. An aggressive effort will be made to enlist support and participation from all members of the university community.

3. Institutional Goal. The ultimate goal of MSC was ambiguous. Some envisioned it as a program for all students at UK, but others wanted to constrain its growth and maintain a very small, yet special program in the College of Arts & Sciences. The former was overly ambitious and unrealistic, especially given the cost of the program in terms of resources and effort. The latter raised the legitimate criticism that too much was invested in a program that served too few. This inconsistent and extemporaneously generated vision was profoundly irresponsible. With an ambiguous goal, administrators were unable to appreciate how the program fit into the University's overall strategic plan. When the Dean of the College of Arts & Sciences departed, this vulnerability proved lethal.

The current plan obviates these deficits by establishing an explicit target size for the program and institutional objective. The program will be implemented at a size that is sufficient to justify the investment, but not so large as to be unrealistic. It is not the goal to have this program substitute for the prevailing general education program. Perhaps in due time such a change will be warranted. The vision for now, however, is to implement a general education program that will serve approximately one-third of entering first-year students, and we do not expect the size of the program to change for at least five years.

4. Program Scope and Structure. MSC was excessive in scope and unduly burdensome in structure. The two-year duration of the program, and excessive dependence on graduate TAs made the program very expensive. The five-credit hour structure used for MSC courses required classes to meet five days each week. This feature was very unappealing to faculty and graduate students who might otherwise have been willing to participate in the program. Recruitment of new faculty was, indeed, a salient problem. The impact of the unusual pedagogical demands of MSC was especially apparent among those who did participate. A common refrain of these faculty was that they enjoyed the concept, but the program was too demanding.

The program proposed here will avoid these difficulties by (1) limiting the scope of the program to one-year, (2) being less dependent on TAs, and (3) relying on the more conventional 3-credit hour class format and conventional University class schedule.

5. Program Insularity. A profound weakness of MSC was that it did not connect to any of the other academic enrichment programs extant at UK, nor did its structure allow for that possibility. Thus, it would have been impossible to establish connections to other innovations

that have recently emerged at UK. For example, UK has a very successful first-year transition program consisting of a one-credit orientation course. More recently, a first-year discover seminar program has been established, and an undergraduate research program is expected to be in place by Fall 2000. The former involves small classes taught by leading scholars who discuss topics that stimulate student interest in the knowledge creation function of a research university. Examples of seminar topics from last semester include "Growing Old Today", "The American Jury", "Dinosaurs & Disasters", and "Kansas City Jazz." The new research program will be fashioned after the highly successful program at the University of Michigan. It allows first-year students to earn general education credit by working on faculty supervised research. These students also complete a one-credit seminar designed to introduce basic topics and issues pertinent to the research enterprise, such as research safety, ethics of scholarship, scientific communication, and intellectual property.

The structure of the program described in this proposal will not only enable students to participate in these programs, but it will actually require such participation. This change will enrich the quality of the new program, but it will also prevent it from being seen as isolated, which is critical to the long-term survival of the program.

There are also a few new features that will strengthen the quality and institutional viability of the program. For example, there will be greater flexibility to allow individual colleges to add curricular elements and support dimensions such as living learning communities. There will also be less reliance on graduate student TAs, which will reduce costs. As part of the Planning Component of this proposal, we will pursue additional mechanisms of this kind.

PROPOSAL

Implementation of an Integrative General Studies Program for First-Year Students at a Research University

"Everyone at a university should be a discoverer, a learner. That shared mission binds together all that happens on a campus. The teaching responsibility of the university is to make all its students participants in the mission. Those students must undergird their engagement in research with the strong 'general' education that creates a unity with their peers, their professors, and the rest of society." (The Boyer Commission, April 1998)

The implementation plan consists of three components: (1) development of a new general education program, (2) experimental implementation of this program, and (3) a strategy to affect the transition from an experimental program to one permanently assimilated into the University.

The Program

The 20-credit hour program, termed "Expanding Horizons" is designed to be completed during the student's first year. It will satisfy the majority but not all general education requirements. Students will earn credit for one of the two courses required in each of three disciplinary areas (natural science, humanities, social science). Successful completion of the

program will also fulfill the writing, oral communication, cross cultural, and cross-disciplinary requirements of USP. The main attributes of the program include the following:

- interdisciplinary courses that integrate disciplines in social science, humanities and fine arts, and natural science
- exploration of intra- and extra-cultural diversity as a component of each course
- a coherent curriculum that fosters strong connections between courses and collaboration among instructors
- an enhanced social and intellectual community for 1st-year students
- an emphasis on problem-solving based learning
- promotion of professional teacher development of faculty and graduate students
- inquiry-based learning in all courses
- attention to writing and oral communication in all courses
- rich connections between students and instructors
- creative professional connections between graduate TAs and faculty

These features, many of which were included in MSC, reflect creative ideas about general education that have recently attained national attention. Specifically, the proposed program addresses many of the recommendations of the Boyer Commission report (Reinventing Undergraduate Education: A Blueprint for America's Research Universities., 1998).

Curriculum.

"The freshman experience needs to be an intellectually integrated one, so that the students will not learn to think of the academic program as a set of disparate and unconnected requirements... Undergraduates must explore diverse fields to complement and contrast with their major fields; the freshman and sophomore years need to open intellectual avenues that will stimulate original thought and independent effort, and reveal the relationships among sciences, social sciences, and humanities" (Boyer Report, 1998)

The Expanding Horizons curriculum is composed of two parts--a "Core" and a "University Engagement" component as follows:

CORE

<u>Fall</u>	<u>Spring</u>
"Ways of Knowing" (3 hours)	"Communities" (3 hours)
"Journeys" (3 hours)	"Ecology" (3 hours)
Theme-based integrative seminar (1 hour)	Theme-based integrative seminar (1 hour)

UNIVERSITY ENGAGEMENT

<u>Fall</u>	<u>Spring</u>
First-Year Discovery Seminar (3 hours)	Independent Research (3 hours)

Core Courses. Each 3-credit course in the Core will be taught by full-time faculty with TA assistance. The 1-credit integrative seminars will be team-taught by the TAs assigned to Core courses with faculty supervision. The three courses taught within the same

semester will be integrated so that readings, major assignments, and field experiences are coordinated with respect to scheduling and substance. Faculty and graduate students will meet on a weekly basis to maintain this integration.

The courses bring together texts, perspectives, and questions from three broad disciplinary categories: the humanities and fine arts, the social sciences, and the natural sciences. Equally important is that each course pursues the complementary goal of cultural and individual diversity. The interdisciplinary nature of each course is manifest on several dimensions. First, the content of each course is structured to expose comparisons among the disciplinary perspectives. Second, types of readings and source materials reflect disciplinary differences. For example, course assignments will include reading literature, poetry, biographies, nonfiction, scientific essays, empirical research papers, speeches, etc. Third, interdisciplinarity is reflected in pedagogy and ancillary course materials. For example, students will not only read but will also watch films, view art displays, and listen to music and oral presentations. While highlighting the content conveyed through each medium, instructors will also emphasize the relationship between that content and the medium itself.

Faced with the complexity of the world and our place in it, the program seeks to recognize limits and expand boundaries of students and faculty while seeking the enlightenment offered by the wisdom of diverse disciplines and cultures. Thus, individual and cultural diversity will be woven into the content of each course and emphasized where appropriate. With attention appropriately balanced between the present, the past, and the future, these courses ask students and faculty to consider where we have been in order to understand where we are, and to use that perspective in contemplating the future. The integrating theme for the program is the idea that to understand the world and our place in it one must approach the human condition as a continuous journey. The goal is not merely to provide knowledge and provoke thinking, but also to inculcate the values and limits of scholarship. As important as anything else, we want our students to learn the value of learning and to aspire to become lifelong learners.

As for course content, in the first semester the program follows a parallel between the intellectual journey of the new college student and "journey" as a symbol of human growth and discovery. "Ways of Knowing" makes knowing problematic and examines the virtues and limits of various disciplines (e.g., art history, biology, neuropsychology, literature) in making sense of a complex world, not as discrete alternatives (as they would be in the "menu" of traditional departmental courses) but as part of a comprehensive understanding; the goal is to break down disciplinary barriers as well as provide a broad intellectual toolkit for college work and beyond. Concurrently, "Journeys" begins with the journey of each individual setting forth to encounter the world, or to find "home," a process which we pursue in various directions: biological, psychological, geographical, historical, mythic, and social. In the second semester, students join a course in human communities with a course in the community of life on the earth through time. "Communities" looks at the way individuals come together to form groups, at how these groups work, at the variety of physical structures they generate (such as cities), and at the prospects for various forms of organization and connection. In "Ecology," students consider the place of the individual human being, of human culture(s), and of the human species in the system of the earth.

as a whole, as well as how at various times and places (including the present) people and cultures have imagined this connection. The course, and indeed the program as a whole, is about our history over geologic and pre-historic as well as more recent time, about where we're going as well as where we've been, about limits and responsibilities, about the material and spiritual implications of various ways of knowing and relating to our environment and our fellow creatures (human and otherwise), and about thinking connectedly, or "ecologically," in an attempt to achieve some sense of wholeness and unity.

Each course has its own particular emphasis with respect to the main disciplinary categories and specific disciplines within these categories. For example, "Ecology" will contact natural science with respect to specific information pertaining to geology and biology, whereas "Journeys" will emphasize political science, sociology, psychology, geography and biology. The broader notion of science, however, will be emphasized in "Ways of Knowing" where science will be discussed, indeed, as a way of knowing. Other disciplines within each category will be similarly represented in the content of the various courses. Much of the richness of these courses can be appreciated by viewing examples of course syllabi that were used in MSC (See appendix ii). Please note, however, revisions are expected in each course as part of this proposal.

The one-credit-hour theme-based integrative seminars (one each semester) are designed to further connect the other courses to each other, to engage the students very specifically in discovering and making such connections, to foster certain college "survival skills," to strengthen the students' sense of community, and to provide a pointedly inquiry-based, problem-solving component for the program. The seminars would have no additional readings but would bring the readings, materials and classroom discussions of the three-credit courses to bear on the seminar's chosen theme, which would change every year. (Examples of themes: the possibility of men and women coming from different planets, racism and the fear of difference, ethical dilemmas raised by modern science and technology, the role of memory in life, viruses, the making of modern mythology, and the effects of mass media in modern life.)

University Engagement. This component of the curriculum links Expanding Horizons to other innovative programs at UK in order to enrich the overall academic experience of our students. The goal is to link the virtue of a first-year experience (e.g., activities designed to connect students to the institution—M. Lee Upcraft & J. N. Gardner: The freshman Year Experience) with the Boyer recommendation that we strive to develop a kind of education available only at a Research University. During the Fall Semester, each student will enroll in one of the Discovery Seminars based on their interest. The topics and instructors of these seminars change each year, but a concerted effort will be made to connect activities in the Core to activities in these seminars. Minimally, each instructor of a Core course will have copies of the syllabus of each Discovery Seminary. Additional ways to connect these seminars to the Core will be pursued as part of the activities to be supported through this proposal. During the Spring Semester, each student will enroll for credit in one of several research opportunities available to students at UK. We will need to design a way for these experiences to connect in a meaningful way to the Core courses, which is another task to be accomplished as part of the planning component of this proposal.

Learning Community.

"Research universities should foster a community of learners. Large universities must find ways to create a sense of place and to help students develop small communities within the larger whole.... We believe that faculty time is best invested in classes in which interaction with students is normal and integral."
(Boyer Report, 1998)

The program offers rich opportunities for interchange among faculty, graduate students, and undergraduates. Meaningful interchange occurs not only in each class meeting but also in the planning sessions conducted by faculty and TAs and in collaborative written and oral projects completed by students. In addition to exchanging multiple views of the topics and texts and their interconnections, the graduate students and faculty learn pedagogy from each other by virtue of a team teaching model in which a faculty member and a TA are present in each class. The bond that develops among the students in a program of this sort (sometimes called a "mini-college") can counteract the sense of isolation and alienation often experienced by first-year students away from home for the first time attending large research universities. In order to supplement and embellish the sense of learning community the program embraces, we will develop a cohort residence life dimension as part of the activities supported through the grant.

Our emphasis on interdisciplinary teaching by a diverse corps of instructors finds rewards in professional research, both for faculty and for graduate students. Graduate student TAs, who will become the next generation of teachers, benefit from the extraordinary interaction they have with faculty and undergraduates of diverse backgrounds, from the mentoring and training they receive, from the diversity of texts and topics that are covered, and from the range of skills they exercise (including written, oral, and visual communication).

Pedagogy.

"Undergraduates who enter research universities should understand the unique quality of the institution and the concomitant opportunities to enter a world of discovery in which they are active participants, not passive receivers. " (Boyer Report, 1998)

Each course involves considerable reliance on discovery learning, through projects and assignments that force students to find their own way, discover their own answers, and develop their own voice and perspective. Through projects that require information technology, students learn skills and problem solving techniques early in their careers that will serve them as life long learners. A main emphasis of the program is on "research", defined as a rigorous intellectual process that yields knowledge or creative products. Assignments and projects are structured so that students learn how to organize and integrate facts and ideas selected from a wide range of information obtained through a variety of techniques and resources. The pedagogy is intentionally designed to foster the development of analytical thinking, creative problem solving, effective communication skills, and, perhaps most important of all, judgment.

Implementation Plan

The Implementation plan is designed to establish Expanding Horizons as a permanent general education program at UK by Fall 2002. It consists of the four components listed below with corresponding dates of action:

Program Development	Summer 2000
Pilot Program	Fall - Spring 2000
Institutionalization Strategy	Summer 2000 - Spring 2001
First-Year Implementation	Fall 2001 - Spring 2002

Program Development. The extinct MSC program provides the framework for Expanding Horizons, but course revisions and program refinement are required. Each of the Core courses will retain the basic conceptual structure that these courses had in MSC; a structure that is apparent in the syllabi in Appendix ii. Each course will be modified in several ways in order to improve its quality and to enhance the appeal of teaching these courses. Each course must be reconfigured to conform to a 3-credit structure rather than the five-credit system used with MSC. Part of the reconfiguration will involve finding ways to give instructors discretion to add their own individuality to the content of each course. The challenge here is to construct courses that remain for the most part constant over time, but with the flexibility to individualize a small portion of each course. This strategy reflects the strong recommendation of former MSC faculty. Part of the appeal of teaching these courses is that sufficient levels of structure and organization preexist so that faculty new to the program need not create an entire course on their own. The challenge of teaching out of one's own discipline is by itself formidable. To require new recruits to design and construct interdisciplinary courses would undermine the important goal of having a roster of participants that continually changes. Faculty must be drawn to participate from the desire to engage in an exciting new teaching opportunity, but to make that experience unduly burdensome would undermine the attractiveness of the program. Similarly, faculty recruitment will be enhanced by allowing each faculty member to bring in to the course a personal piece.

The MSC versions of these courses were dominated by content and perspectives of the humanities and social sciences. The natural sciences and fine arts were only nominally represented. Accordingly, another task is to achieve equal representation of the humanities, social sciences, and natural sciences and to increase the representation of fine arts beyond what it was in MSC. All of this must be accomplished in specific terms; syllabi need to be assembled that include reading lists, media presentations, assignments, program events, schedules, etc.

Beyond course redesign, the structure of the entire program will need to be redefined. Expanding Horizons differs from MSC with respect to being a one- rather than two-year program, but it also includes new elements. For example, the Engagement Component must be integrated into the program and the 1-hr integrative seminars must be developed as well.

This phase of the implementation Plan will begin with the assignment of a Program Director and the creation of a University-wide Advisory Committee responsible for developing the Pilot Program during the Summer of 2000. The Director will be appointed by the Dean of

Undergraduate Studies and will coordinate all phases of the Implementation Plan. The Director and the Dean will solicit volunteers to work on program development. The committee will be composed of 10-12 faculty, at least 1 professional advisor (engaging these staff from the outset reflects another lesson learned from MSC), and 1-2 graduate students who have interest or experience in interdisciplinary issues. The Director will arrange and conduct regular meetings of this group over the summer. It is expected that subcommittee assignments will supplement meetings of the entire group. By August 15, a Pilot Program will be ready for implementation for the Fall 2000 and Spring 2001 semesters.

Pilot Program. A cohort of 25-30 students will be recruited by the Advisory Committee during summer-2000 advising conferences held at UK prior to the start of the Fall Semester. Students will be told that they are participating in a pilot program designed as an alternative to the traditional general education program. They will be informed about course credits earned by completing this year-long program, told how credits will be assigned if they fail to complete all courses (as determined by program policies designed by the Advisory Committee), and they will be assigned a professional advisor. Advisors will contact students regularly throughout the academic year as part of the assessment activities. The Pilot Program will be conducted by a set of four faculty and two graduate teaching assistants assigned by the director. This group will meet regularly with the Program Director over the course of both semesters. Note, that although only some of these individuals will be teaching during each semester, the entire group will meet.

The Advisory Committee will also continue to meet throughout the Fall and Spring Semesters. One purpose of these meetings is to create and execute a plan with which to publicize the program to the University community; a strategy that was not used with MSC. A second more important task is to develop a sophisticated assessment procedure with which to evaluate all pertinent aspects of the Pilot Program. A major part of the overall strategy to institutionalize Expanding Horizons is to validate the success of the program and to communicate that information to all members of the University. Based on the cursory evaluation of MSC, we are confident that student learning outcomes in Expanding Horizons will be profoundly superior to those of students enrolled in the traditional general education program.

The University has launched a comprehensive effort to assess learning outcomes for the existing general education curriculum. The procedures developed for that purpose will be extended as appropriate to Expanding Horizons. Learning outcomes from both programs will be compared. In addition, a variety of other assessment tools will be developed by the Advisory Committee who will work with faculty consultants at UK who have expertise and experience in assessment research. Especially important are qualitative measures of student performance and information obtained through personal interviews conducted by the professional advisors throughout the duration of the Pilot Program. The Advisory Committee will begin to develop the assessment plan during the summer and will have procedures in place by the middle of the Fall Semester.

The Advisory Committee will then supervise the analysis and evaluation of the Pilot Program. Again, various faculty and staff at UK who have expertise in educational assessment will be enlisted to assist in this effort. A detailed evaluation report summarizing all aspects of the

Pilot Program will be examined by the Advisory Committee during Summer 2001. The Advisory Committee will then change and modify the program where appropriate.

Institutionalization Strategy. The institutionalization strategy seeks to begin the process of achieving a permanent status for Expanding Horizons. The strategy is to pursue two objectives concurrently. First, administrative policies and regulations must be altered to maintain the long-term viability of the program. Second, we must accrue a commitment to support this program from key individuals who have administrative control over general education at UK. The importance of this aspect of the proposal is reflected all too well in the demise of MSC. Despite the program's shortcomings, had appropriate administrators wanted to maintain the program it would still be functioning!

This important lesson is critical to the success of Expanding Horizons. Although procurement of administrative commitment seems like a tall order, there are several factors that contribute to our rational confidence that we can achieve this goal. First, as described above, there has been a fundamental change in the climate at UK. Reform and innovation are now salient features of the University's operation and planning. As mentioned previously, the Top-20 aspiration has caused a passionate desire at all administrative levels to pursue positive change; an attitude especially conspicuous at the Presidential level as exemplified by *The President's Initiative on Undergraduate Education* (Appendix ii). There was no such passion for reform when MSC was introduced.

Nowhere is the willingness to embrace reform stronger than in the University's commitment to improve general education. Planning and budgeting at UK are guided by an explicit Strategic Plan. Progress in meeting the objectives of the Strategic Plan are measured yearly with respect to a list of specific Strategic Indicators. Directly relevant to this proposal, one of those indicators measures improvement in the quality of USP (see Appendix iii for an outline of USP), which is the extant general education curriculum. By virtue of being represented as part of the University's Strategic Plan, reform of general education at UK is a must not a desire. It is no longer a question of *do we need to do this?* Rather, it has become *how can we do this?*

Equally important to the success of Expanding Horizons is that as author of this proposal, I am designated as the administrative leader for general education reform at UK. It is my responsibility, as Dean of Undergraduate Studies and Director of General Education, to ensure that we meet our strategic goal of improving the general education experience. Beyond the public leadership role I exercise with respect to general education, my office also controls funding mechanisms that can be utilized to facilitate the transition of Expanding Horizons from experimental to permanent status. This administrative advantage was not available to MSC. It was a college dean who initiated MSC; a viability that contributed to the program's institutional uncertainty and eventual extinction. Deans in other colleges were unwilling to support necessary funding to sustain and expand MSC in part because they failed to perceive the program as an alternative to general education. It was always seen, instead, as a College of Arts & Science program.

Another important factor is that the new Dean of the college of Arts and Sciences has implemented administrative changes that are conducive to the administration of Expanding

Horizons. Part of the Dean's new policy is to allow department chairs greater flexibility in determining faculty teaching assignments. During MSC, administrative policy required that teaching assignments outside of a faculty member's department be compensated through an expensive course release policy that dramatically escalated the costs of the program. With this new flexible workload system being implemented for the first time within the College of Arts & Sciences, which is the major contributor of faculty for general education courses, we expect this approach to gain acceptance across the University. This policy change will make staffing of Expanding Horizons easier and less expensive.

In order to realize this expectation, two events must occur. First, The Dean of the college of Arts & Sciences must be convinced that Expanding Horizons is a valid alternative to the existing general education curriculum. Second, other Colleges that can provide faculty for the program must implement a similar workload policy as that now used in the college of Arts & Sciences. A major consideration that will facilitate the latter is that the Chancellor has expressed a desire to achieve that goal. The Chancellor is the academic leader of UK and has ultimate administrative control over the Colleges as well as general education. As Dean of Undergraduate Studies, I work closely with the Chancellor on all matters pertinent to undergraduate education. Given the objectives of Expanding Horizons and the administrative obstacles that currently preclude institutionalizing this program, I am confident that we can make the administrative changes necessary to support the program.

We do not intend, however, to passively await these changes. The Institutionalization Strategy includes formation of an Implementation Committee. This committee will be composed of two faculty from the Advisory Board, one professional advisor working with Expanding Horizon students, Associate Deans responsible for high-level administrative policy in the colleges of Arts & Sciences, Fine Arts, Communications, Education, and Business and Economics. These colleges currently provide faculty who teach courses in the traditional general education program. This group will deliberate during the Pilot Program period of the project. The goal of the committee will be to develop the administrative mechanism to achieve two goals: (1) to develop a method of staffing Expanding Horizons that does not require additional expenditures by departments or colleges beyond that currently required to staff courses in the existing general education program; (2) to establish a mechanism to ensure that faculty receive credit and rewards for participating in Expanding Horizons comparable to those provided for participating in the existing general education program. The point here is to avoid treating faculty involved in Expanding Horizons as if they were involved in nonessential, experimental activities peripheral to the central missions of the University. Unfortunately, just such an attitude did exist with MSC participants, and faculty never received the respect, credit, nor rewards deserving of their efforts. The Implementation Committee, to be chaired by the Dean of Undergraduate Studies, will create processes and mechanism that will obviate these problems.

One part of the plan is to hold a summer Administrative Workshop. This meeting will be arranged and conducted by the Implementation Committee, but the important attendees will be the Deans of Colleges pertinent to the functioning of Expanding Horizons, the Chancellor, Vice Chancellors responsible for academic affairs, and relevant members of the President's staff. This

event represents a concerted effort to communicate the opportunities that Expanding Horizons affords, to document its educational merits through reviewing results of the comprehensive assessment activity, and to create the administrative mechanism that will ensure the permanent success of the program.

This strategy is a bold and novel approach to program reform. It departs from the traditional approach, one that was true of MSC, in which small cadres of enthusiasts initiate creative programs and then attempt to gain support to sustain these programs through indirect communication with higher ranking administrators. In contrast to that approach, we will invite at the outset all pertinent administrators to participate in a collective effort intended to implement general education reform. The Administrative Workshop will be held during the summer after First Year Implementation phase of the project. Its purpose will be to develop the necessary administrative mechanism required to transfer funding of Expanding Horizons to the University.

At this point it is reasonable to ask why we do not simply implement the program on our own at this time; why do we need the support of the Hewlett Foundation? The answer is that the general operational strategy guiding all of the University's improvement efforts is to invest in documented success rather than dreams. New academic programs must earn the support and endorsement of faculty and administrators through *demonstrated success*, and only successful experiments will receive support. Support of the Hewlett Foundation will enable us to pursue such an experiment to an extent that would be otherwise impossible. The Pilot Program and the First-Year Implementation Plan, along with detailed and comprehensive assessment results, are needed to validate Expanding Horizons. We need to supplement descriptions of the inherent virtues of Expanding Horizons with hands-on experience in implementing the program at UK; evidence that we can gather only through the generous support of the Hewlett Foundation. It should also be appreciated that the support of the Hewlett Foundation is not only necessary to animate Expanding Horizons, but that very support itself affirms the credibility of Expanding Horizons.

First Year Implementation. The final piece of the proposal consists of one year of full implementation of the program. This phase is designed to accomplish three goals. First, the coherence and programmatic nature of Expanding Horizons depends on a team approach. The plan is to maintain regular meetings of faculty and TAs assigned to different sections of the same course, in addition to meetings of all faculty participating in the program during the same semester. Instructors will meet no more than once each week. These meetings will alternate weekly between those involving faculty teaching different sections of the same course and those involving the full complement of instructors active in the program during a given semester. Note, this format is obviously different from that of the more limited Pilot Program because of the limited scope of the latter. An important point to be emphasized is that these meetings not only benefit the quality of the program, they also contribute to the teacher development dimension of Expanding Horizons. Discussions among instructors provide valuable opportunities for faculty and graduate TAs to interact with colleagues outside of their disciplines. Such opportunities are all too rare at research universities where disciplinary isolation disrupts valuable interaction among faculty.

Second, this phase of the project will provide the opportunity to obtain yet more assessment data on the effectiveness of the program. Again, the goal is not to implement a program based merely on speculation, but rather our goal is to institutionalize a successful experimental program. The full implementation year will serve to "test drive" the program, and this experience can then be used to modify and improve the program before it is institutionalized. Third, this important year of the project will affect the transition of Expanding Horizons from an experimental program supported through the generous wisdom of the Hewlett Foundation to a University program that will be sustained, nurtured, and perhaps expanded, as part of the institutions commitment to undergraduate education.

During the First-Year Implementation phase of the project, multiple sections of each course will be offered. Half of the staffing for these courses will be supported by funds from the Hewlett Foundation, and the residual funding will be provided by the University. Although the ultimate goal is to staff the program through administrative changes that obviate the need to rely on course-releases, we will continue to use course releases during this critical phase. The University's portion of funds required for that purpose will be provided through the Office of Undergraduate Studies, which is managed by the author of this proposal.

WEBSITE POSTING

Research Universities continue to struggle to provide quality general education. Questions of philosophy--what do we want all our graduates to know and what should they be able to do--preoccupy all of American higher education, but the unique character and responsibilities of the research university make the challenge especially difficult. The adverse implications of disciplinary structure, the need to balance resources across the demands of multiple missions, and the asymmetrical enthusiasm of faculty for research and graduate training over teaching threaten all undergraduate education. These forces are especially pernicious, however, when it comes to general education; a responsibility that is often in the shadow of other missions of the research university. With the support of the Hewlett Foundation, the University of Kentucky (UK) will attempt to address this problem. The project seeks to exploit the University's recent experience with an experimental interdisciplinary general education program. A modified version of that program will be piloted, assessed, revised, and then implemented in a way that establishes the program as permanent alternative to the standard menu driven curriculum currently in place at UK and many other research universities. The program exploits the character and strengths of a large research university. It consists of a cohesive set of interdisciplinary courses, a structure that relies on collaborative teaching that forges strong connections across courses and among instructors, and advanced pedagogy that emphasizes creative learning. Core cognitive skills and diversity are incorporated into each course. The core curriculum is enriched through two engagement experiences also required of students: a Freshman Discovery Seminar and a first-year research experience. The latter programs are becoming common at research universities, but these programs are not typically integrated into the general education curriculum. The implementation plan to affect the transition from experimental to permanent status relies on an

aggressive combination of detailed planning, creative administrative mechanisms to staff and reward faculty, comprehensive assessment of the success of the program in terms of student learning outcomes, and a novel partnership among key individuals at all levels of the administrative hierarchy.

GOVERNANCE & STAFF

The Office of Undergraduate Studies will be the administrative sector responsible for this project. The PI for this project is the Dean of Undergraduate Studies who has explicit responsibility for general education at UK. Currently the general education curriculum (USP) is governed through a University Senate Committee, chaired by the Dean of Undergraduate Studies. This committee, which meets monthly during the academic year, is responsible for constant review of USP, which includes recommendations to add or delete course, development of learning objectives for each requirement, and supervision of the assessment of each requirement and the program as a whole. The Office includes two full-time and one ½ time staff assistants. The Dean of Undergraduate studies also has administrative responsibility for several other units including the Teaching and Learning Center, Central Advising and Transfer Center (12 professional advisors who serve over 2,500 undergraduates who have not yet declared a major), and the Gaines Center for the Humanities (an endowed program that supports exceptional undergraduates interested in the humanities and provides intellectual opportunities that embellish those available at the University). The Dean is also the designated leader for reform efforts undertaken by the University and works closely with faculty and administrators in Admissions, Financial Aid, the Honors Program, Office of Student Affairs, Office of Minority Students, institutional research units, Directors of Undergraduate Study for each degree program, and college deans. The Dean's authority and responsibility extend to students in 11 colleges on the Lexington Campus and 2 colleges on the Medical Campus of the University.

BUDGET**Year 1**

Director	\$20,000	
Advisory Board Summer Planning 2000	\$18,000	(12 Faculty Stipends, \$1,500 ea.)
Pilot Program		
Faculty	\$28,000	(4 Faculty course releases, \$7,000 ea.)
TAs	\$24,000	(2 Graduate Students, \$12,000 ea.)
Staff Assistant	\$10,000	(½ time professional staff assistant)
Assessment	<u>\$12,000</u>	(materials, \$5000; Personnel, \$7,000)
Year Total	\$112,000	

Year 2

Director	\$20,000	(Same as Year 1)
Staff Assistant	\$10,000	(Same as Year 1)
Implementation		
Faculty	\$56,000	(8 Faculty course releases, \$7,000 ea.)
TAs	\$48,000	(4 Graduate students, \$12,000 ea.)
Administrative Workshop	<u>\$2,000</u>	(materials, facilities, speakers)
Year Total	\$146,000	
Project Total	\$258,000	

Appendix E: Snap Shot Survey of the University Studies Program

The Survey

Undergraduate Studies Program: Snapshot Survey Summer 2004

List your position (Example, dean, advisor, faculty, etc): _____

1. Provide feedback regarding the USP Requirements by selecting an alternative below for each requirement.

Mathematics Requirement

Can be fulfilled in the following ways:

- A score of 26 or above on the mathematics section of the ACT, or
- a score of 540 or above on the mathematics section of the SAT, bypass examination, or
- MA 109 College Algebra, MA 110 Analytic Geometry and Trigonometry, or any calculus course.

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.
Specify number of credit hours _____

Number of Credit hours should be **Increased**.
Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.
Specify new ways: _____

Foreign Language Requirement

Can be fulfilled in the following ways:

- Two years of a foreign language in secondary school as indicated on transcripts, or
- Any two-semester sequence (at least six hours) in a single foreign language at the college level.

Please check the one alternative that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.
Specify number of credit hours _____

Number of Credit hours should be **Increased**.
Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Logic-Inference Requirement

Can be fulfilled in the following ways:

- Any calculus course, or
- STA 200 Statistics: A Force in Human Judgment (Prereq: MA 109), PLUS
PHI 120 Introductory Logic, or PHI 320 Symbolic Logic I

Note: Students must satisfy the math requirement before enrolling in STA 200.

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Written Communication Requirement

Can be fulfilled in the following ways:

- First Year Writing Requirement (4 credit hours). Honors Program students satisfy the First Year Writing Requirement through that curriculum.
 1. ENG 104 Writing: An Accelerated Foundational Course OR
 2. Score of 32 or above on the English component of the ACT; score of 700 or above on the SAT I Verbal; or score of 4 or 5 on the AP English Language Exam
- The Graduation Writing Requirement is also needed but is not part of the University Studies Program.

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Oral Communication Requirement

Can be fulfilled in the following ways:

- One of the following courses
COM 181 Basic Public Speaking; COM 252 Introduction to Interpersonal Communication
COM 281 Communication in Small Groups; COM 287 Persuasive Speaking or
TA 225 Vocal Production for the Stage I
- Bypass examination, OR
- Alternate sequence in the student's major department

Note: This requirement will be waived for the next three years beginning with the incoming class of first year students (Fall, 2004). Please respond based on the requirement prior to the suspension.

Please check the one alternative listed below that best describes your feeling about the requirement **prior to the suspension**.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Natural Science Requirement

Can be fulfilled in the following ways:

- 6 credits in approved courses in Biology, Chemistry, Geography, Geology, Physics and Astronomy, or Physics and Geology

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Social Science Requirement

Can be fulfilled in the following ways:

- 6 credits in approved courses in Economics, Women's Studies, Psychology, Anthropology, Family Studies, Communications, Political Science, Geography, and Sociology (two courses in separate disciplines)

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Humanities Requirement

Can be fulfilled in the following ways:

- 6 credits in approved courses in English, Philosophy, Architecture, Art History, History, Classics, French, German, Spanish, Interior Design, Russian and Eastern Studies, Music, Women's Studies, or Theater

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

Cross-Cultural Requirement

Can be fulfilled in the following ways:

- 1 course in approved courses in African American Studies, Art History, Anthropology, English, Geography, History, French, Japanese Studies, Family Studies, Latin American Studies, Music, Philosophy, Political Science, Russian and Eastern Studies, Music, Spanish, Sociology, Educational Policy Studies and Evaluation, or Merchandising, Apparel, and Textiles

Please check the one alternative listed below that best describes your feeling about the requirement.

Requirement should **Remain** as it is.

Requirement should be **Eliminated**.

Number of credit hours should be **Decreased**.

Specify number of credit hours _____

Number of Credit hours should be **Increased**.

Specify number of credit hours: _____

Requirement should be fulfilled in a **New Way**.

Specify new ways: _____

2. Do you favor limits on the number of USP courses taken in the Junior or Senior Year?

Yes _____

No _____

Why?

3. Indicate below any of the following areas that you think should be added as USP requirements?

Area	Check below if should be offered	Number of Credits
Fine Arts*		
Physical Education		
Business*		

Cross-Cultural Course
(based on cultures in the U.S.)

Computer Science

Community Service
(Volunteer Activity)

Freshman Discovery

UK 101

Service Learning
(Instructor-Directed community activity as
part of a course)

Note: courses in Fine Arts & Business may be counted toward USP requirements, but this refers to a separate required course in each of these areas.

4. Please add any additional comments to the back page of the survey. Thank you for your time.

Appendix F: Snap Shot Survey of the University Studies Program

The Results & Comments

Undergraduate Studies Program: Snapshot Survey Results from All Respondents

Requirement Results

Requirements	Overall			Requirement Should Remain the Same		Should be Eliminated		# of Credit Hours Should be Decreased		# of Credit Hours Should be Increased		Should be fulfilled in a New Way		Other		Data Missing	
	N	Mean	SD	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Mathematics	50	1.4	1.2	41	82	0	0	0	0	1	2	5	10	1	2	2	4
Foreign Language	50	1.8	1.4	32	64	5	10	0	0	5	10	5	10	1	2	2	4
Logic – Inference	49	1.8	1.4	30	61	6	12	2	4	0	0	6	12	2	4	3	6
Written	51	2.5	1.8	25	49	9	0	3	6	4	8	13	25	1	2	5	10
Communication Oral	49	2.1	1.6	26	53	6	16	0	0	1	2	11	22	1	2	2	4
Communication Natural Science	50	1.4	1.1	41	82	0	0	2	4	1	2	6	6	1	2	2	4
Social Science	49	1.8	1.4	31	63	1	2	5	10	3	6	6	12	1	2	2	4
Humanities	50	1.6	1.3	35	70	1	2	4	8	3	6	4	8	1	2	2	4
Cross-Cultural	49	1.8	1.4	31	63	5	10	0	0	4	8	5	10	1	2	3	6

Undergraduate Studies Program: Snapshot Survey Results from Deans Only

Requirement Results

Requirements	Overall			Requirement Should Remain the Same		Should be Eliminated		# of Credit Hours Should be Decreased		# of Credit Hours Should be Increased		Should be fulfilled in a New Way		Other		Data Missing	
	N	Mean	SD	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Mathematics	8	1.7	1.6	5	63	0	0	0	0	0	0	1	13	0	0	2	25
Foreign Language	8	2.4	1.9	3	38	0	0	0	0	1	13	1	13	0	0	3	38
Logic – Inference	8	1.2	0.4	5	63	1	13	0	0	0	0	0	0	0	0	2	25
Written	8	3.3	2.0	2	25	0	0	1	13	0	0	3	38	0	0	2	25
Communication Oral	8	2.5	2.0	3	38	1	13	0	0	0	0	2	25	0	0	2	25
Communication Natural Science	8	1.6	1.5	6	75	0	0	0	0	0	0	1	13	0	0	1	13
Social Science	8	2.0	1.7	5	63	0	0	0	0	1	13	1	13	0	0	1	13
Humanities	8	1.9	1.6	5	63	0	0	1	13	0	0	1	13	0	0	1	13
Cross-Cultural	8	2.4	1.9	3	38	0	0	0	0	1	13	1	13	0	0	3	38

**Undergraduate Studies Program: Snapshot Survey
Summer 2004
Comments**

Question 1. Provide feedback regarding the USP Requirements by selecting an alternative below for each requirement.

Mathematics Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

NO RESPONSES

Number of credit hours should be Increased

Specify number of credit hours:

1. Placement of students in math classes, based on ACT scores is problematic! Placement guidelines should be re-evaluated!

Requirement should be fulfilled in a New Way

Specify new ways:

1. Lower the ACT/SAT score to 25/530 respectively. (* Note: MA 111 also fulfills this requirement.).
2. Check ACT/SAT concordant scores to make sure the 26/540 is accurate.
3. Suggest reviewing equivalency of ACT/SAT scores. Saw lots of discrepancies in scores this summer – low ACT scores and high SAT scores.
4. I believe that admission to UK should have a minimum of 3 yrs. of HS math (alg., geometry and adv. alg. / trig., then add 1 yr. of math!
5. As above plus new course not as “rigorous” (e.g. MA 100) for students who need it.

Additional Mathematics Comments *(not presented as a comment question on the survey)*

1. Requirement should Remain as it is – Students should not be admitted to UK where do not qualify to take MA 109 (ACT Math of 19).
2. Requirement should Remain as it is – What about MA III?
3. Requirement should Remain as it is – MA III also counts toward the Math Requirement currently.
4. Requirement should Remain as it is – Was MA III inadvertently left off the above listing? I strongly support this course and its inclusion as a means to fulfill the USP Math requirement.
5. Requirement should Remain as it is – MA III Contemporary Math is also included.
6. Requirement should Remain as it is – 3 hrs

Foreign Language Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

No Responses

Number of credit hours should be Increased

Specify number of credit hours:

1. Same as Arts & Sciences – lang. through 202. In addition – more encouragement of study abroad options – should be mandatory w/in 5 years.
2. Minimum of 4 college semesters
3. Recommend students be required to take a For. Lang. at the college level or at least test out of 2nd level of F.L. Many students w/ 2 years of HS F.L. do not qualify for anything beyond the first level.
4. 12 (including HS)
5. 12 overall (2 HS + 2 sem. UK) or 4 UK

Requirement should be fulfilled in a New Way

Specify new ways:

1. I favor a test (passing score) or taking classes at UK similar to the math requirement.
2. All students should complete 4 semesters of language or the equivalent. Necessary to beef up language requirements in a global economy. Two yrs. of h.s. only scratches the surface.
3. 2 semester sequence or placement test establishing proficiency to second semester level.
4. Completion of 2 semesters of the same FL at the college level. Students could place out of these but HS should not automatically count as equivalent to 2 semesters in college.
5. I believe that 2 yrs in H.S. should be a requirement for admissions to UK. And then 1 year of a new language at the intro level OR one year of adv. language built on the HS base of 2 yrs.

Additional Foreign Language Comments *(not presented as a comment question on the survey)*

1. Requirement should be Eliminated – 2 yrs. of foreign lang. in HS is now an admissions requirement.
2. Requirement should be Eliminated – is now fulfilled by all 1st time freshman because it is part of Ky. pre-college curriculum.
3. Requirement should be Eliminated – (High School equivalency)

Logic-Inference Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

1. 3 – Cal, or Stats or Phil.
2. 3 – either/or STA 200 or PHI 120.

Number of credit hours should be Increased

Specify number of credit hours:

No Responses

Requirement should be fulfilled in a New Way

Specify new ways:

1. Students should be required to take STA 200 and PHI 120 or a philosophical ethics class. Calc. should not meet this req.

2. Students who transfer in rarely have any course equivalent to STA 200. Create a more standardized option instead of STA 200 – substitute computer science class.
3. Consider allowing STA 291 as well. We see students that take STA 291 w/o calculus.
4. Calculus or a combined reality based reasoning course – 3 credit hours instead of requiring both STA 200 and PHI 120.
5. Other math-based courses should be considered by the USP committee.

Additional Logic-Inference Comments *(not presented as a comment question on the survey)*

1. Requirement should be Eliminated – move to program if it required by the program.
2. Requirement should be Eliminated – Logic-inference is a peculiar term & must be covered in other courses.
3. Requirement should be fulfilled in a New Way – Put PHI 120 in Humanities possibly delete MA 123.

Written Communication Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

1. 3 – ENG 104 should be 3 hrs., not 4. 4-hr. meeting pattern creates havoc trying to schedule this class.
2. 3 – 4 credit hours for new ENG 104 was a logistical nightmare for scheduling freshman classes. It remains to be seen what the actual benefit will be. Because of this 4 hour class, many freshmen ended up with either 13 or 17 hour schedules – neither are desirable.
3. 3 for ENG 104 – 3 for 200+ course.

Number of credit hours should be Increased

Specify number of credit hours:

1. 9
2. 6 total

Requirement should be fulfilled in a New Way

Specify new ways:

1. I favor more “non-English” course to fulfill the upper division writing-intensive course requirement. We need to stress that written communication is important in all areas.
2. 2nd tier writing course choices should be expanded to include more writing courses vs. lit. courses.
3. As specified in Janet Eldred’s proposed model of writing instruction in the disciplines.
4. Two semesters of English composition – Don’t know if this is new.
5. ENG 104 should be required for Frosh w/ an ENG ACT score below 25 (or another score as determined by the ENG dept.).
6. Gamesmanship of calling 200 level Eng courses "2nd tier" requirements should be eliminated. Calling these courses "graduation requirements" is confusing to students. Waiting for other departments to add additional "2nd tiers" without any monitoring of same will only dilute course content. Other departments are loath to institute courses heavy in writing and the evaluation thereof.
7. I believe writing should be expanded across the curriculum. Students need more than 2

- writing courses in college to be successful in the workforce or further schooling.
8. This should be “writing across the curr.” Have writing requirements in the major.
 9. Consider writing across curriculum. Something has to be done!
 10. All students should take a basic writing course including how to write a research paper.
 11. Not sure about sophomore requirement yet.
 12. The written communication requirement should address specific writing needs, e.g. technical writing, business writing, etc., not a list of subjects.
 13. 4 or more (8 ?) incorporate into 1st year or in combination.

Additional Written Communication Comments (*not presented as a comment question on the survey*)

1. Requirement should Remain as it is – (nothing listed, but I assume the intention was to list the new requirements)
2. Requirement should Remain as it is – Please – no more changes until we learn the ramifications of this one.
3. Requirement should Remain as it is – 104 & 2nd tier (grad. req.)
4. This new requirement needs to be given an opportunity to be evaluated as a way of satisfying the writing requirement.

Oral Communication Requirement

Number of credit hours should be Remain as it is

1. More resources need to be provided to make this requirement stronger.

Number of credit hours should be Decreased

Specify number of credit hours:

Number of credit hours should be Increased

Specify number of credit hours:

1. 4 – (2 hours – required COM course; 2 hours – dept. – see below #1: Requirement should be fulfilled in a New Way).
2. Recommend: 1 speech class, + one ‘Theory of Communications’ class....See also below #2: Requirement should be fulfilled in a New Way).
3. Reinstate this requirement.
4. There should be oral communication required w/I the major.

Requirement should be fulfilled in a New Way

Specify new ways:

1. “Communications” across the curriculum – integrate 2 hours of COM into upper level courses, as specified by letter designation – must take 2 such courses to graduate.
2. Could be fulfilled in other courses – but too few courses require oral presentations.
3. Require students to take two speaking-intensive classes. These might include seminars and capstone courses.
4. Alternate sequence in major dept. ONLY
5. This is an important area that needs to be addressed differently. The mechanics of public speaking are part of the issue - stage presence, eye contact, posture, etc. But the bigger issue is what a person says. Students need practice constructing meaningful presentations

that they care about, not just performing in a speech class.

I know from first-hand experience how tenaciously the COM faculty hold onto the notion that they are the most qualified to teach COM skills. Is what they are teaching what students need? Perhaps a more effective course would combine elements of COM 101, 181, 252 & 281. COM 101 does not meet the USP requirement - the other three do, but it seems short-sighted to make students choose only one. The reality of their lives is that they will need skills in all three areas.

Some colleges should be exempt just by virtue of what they teach - education comes to mind. The need for skill practice could be met easily by taping and assessing a student in a practice teaching (long before student teaching).

The issue of resources comes up continually with COM. If the class crossed more of the areas, perhaps more faculty could teach. This is one USP that students need in the first or second semester to use the full benefit - juniors and seniors would never be taking COM requirements, and it's even a stretch for sophomores.

With the shift to email & cell phones as primary contacts, students are losing the ability to speak face to face - or are never learning. Somehow we need to take the elements of the old and blend with the new. With so many electronic options for communication (conference calls, video and computer cameras) what has "always been" needs a make-over.

6. No by pass should be permitted.
7. ?????????????? suspension needs to be strengthened! Every student needs COM 181 or COM 252 – but components could be integrated into major coursework as long as they are not so watered down as to be unrecognizable.
8. Should be required to take course dealing with interpersonal communication.
9. into new 1st year experience requirement.

Additional Oral Communication Comments (*not presented as a comment question on the survey*)

1. Requirement should be Eliminated – UNLESS: Course addresses practical communication skills required in today's marketplace. MUST NOT FALL BEYOND SOPHOMORE YR. BECAUSE OF + RESOURCES.
2. Concerning the footnote: *Note: This requirement will be waived for the next three years beginning with the incoming class of first year students (Fall, 2004). Please respond based on the requirement prior to the suspension.*
Comment – This should never have happened! Requirement is too important to be used to “make a statement” about lack of funding for increased enrollments.
3. Requirement should Remain as it is, -- but funding needs to be provided so enough sections are taught to meet demand.
4. Requirement should Remain as it is – as it was before it was eliminated.
5. Requirement should Remain as it is – Oral comm. should be required within the first 4 semesters—it's very helpful to students!
6. Requirement should Remain as it is – The university should remain committed to this

requirement.

7. Requirement should Remain as it is – This should not go away!! Our students need to have good communication skills to ensure their readiness for the workforce or future educational pursuits.
8. Requirement should Remain as it is – Definitely
9. Requirement should be fulfilled in a New Way – Drop bypass & alternate sequence.

Natural Science Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

1. 3 – See below #1: Requirement should be fulfilled in a New Way.
2. 3-4

Number of credit hours should be Increased

Specify number of credit hours:

1. 3

Requirement should be fulfilled in a New Way

Specify new ways:

1. Requirement should be fulfilled through a new core course that focuses on scientific way of thinking & seeing.
2. Class size should not exceed 300 students. I think one science class would be sufficient, esp. for non-science majors.
3. work on new ideas, courses OR make new courses interdisciplinary as most science tends to be.

Additional Natural Science Comments *(not presented as a comment question on the survey)*

1. Requirement should Remain as it is – Health Science majors have many pre-reqs. No opinion on general requirements.

Social Science Requirement

Requirement should Remain as it is

1. To make the requirements uniform possibly permit two of the same

Number of credit hours should be Decreased

Specify number of credit hours:

1. 3 – See below #1: Requirement should be fulfilled in a New Way.
2. 3

Number of credit hours should be Increased

Specify number of credit hours:

1. 9-12 – 3-4 courses
2. 12
3. 9 – 3 hours must be in economics or create separate 3 hr. economics requirement.

Requirement should be fulfilled in a New Way

Specify new ways:

1. New course – soc-scientific ways of thinking.
2. 6 hrs. from any (list) but not require two depts.
3. Just add more sections of the more popular classes & eliminate ones such as ECO 101, AEC 101, ANT 241, 242, GEO 210.
4. Same as current, but allow students to use 2 courses in the same discipline.
5. 6 hours from the listed courses but should not have to be from separate disciplines.
6. Should be expanded to include courses from other colleges and departments. e.g., fam. Studies, social work, edu., comm.

Additional Social Science Comments *(not presented as a comment question on the survey)*

1. Requirement should Remain as it is – would like to understand significance of separate disciplines here vs. Nat. Sci. or Humanities.

Humanities Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

1. 3 – See below #1: Requirement should be fulfilled in a New Way.
2. 3
3. 3
4. 3

Number of credit hours should be Increased

Specify number of credit hours:

1. 9-12 – 3-4 courses
2. 12
3. 12

Requirement should be fulfilled in a New Way

Specify new ways:

1. New core course – Humanistic way of thinking.
2. Again – add more sections of popular courses & eliminate least (under enrolled?) popular.
3. Omit Women's Studies from list, otherwise OK.
4. Should be expanded to include courses from other colleges and departments. e.g., fine arts & design.

Additional Humanities Comments *(not presented as a comment question on the survey)*

1. Requirement should Remain as it is – but don't allow writing courses to count here

Cross-Cultural Requirement

Number of credit hours should be Decreased

Specify number of credit hours:

Number of credit hours should be Increased

Specify number of credit hours:

1. 6-9 – 2-3 courses
2. 6 – Additional hours in non-western studies are important to students' understanding & appreciation of the world today.
3. 6

Requirement should be fulfilled in a New Way

Specify new ways:

1. No credit for Merchandising, Apparel, or Textiles – they are too “applied”.
2. Requirement should be waived for international students.
3. Could be tied to a specific foreign language.
4. Consider dropping some of these above, e.g., textiles!!
5. Broaden concept of cross culture & eliminate the existing high number courses.

Additional Cross-Cultural Comments (*not presented as a comment question on the survey*)

1. Requirement should be Eliminated – Seems useless-esp. for the array of classes – students stick with a cluster of about 5-7 most popular. Don't seem to gain much though.
2. Requirement should Remain as it is – Perhaps consider alternative path for international students from non-western countries?
3. Requirement should Remain as it is – Rethink this idea!

Question 2. Do you favor limits on the number of USP courses taken in the Junior or Senior Year?

Yes or No...Why?

1. Yes – Writing & COM courses need to be taken early; same with USP related to major.
2. No – There's no reason for this kind of restriction.
3. No – When I was a senior I had completed nearly all of my requirements. During that year I took 12 hours of electives in courses like anthropology & history. I learned a lot & would not like to prevent that possibility to others.
4. No – Students should be allowed to take a balance of major & USP courses each semester they wish.
5. No – The courses that are foundation or pre-reqs will be taken early enough naturally. It helps to have courses outside the major in jr. & sr. years to keep perspective on the rest of the world.
6. No – unrealistic, unwise, inflexible.
7. No – USP courses are graduation requirements. Students should be permitted to spread them throughout the 4 (to 6!) years, in any way that works with their major.
8. No – Gen Ed. should across the career.
9. Yes – So more is available when students need them during freshmen/soph. year. But more electives should be added to schedule of classes.
10. Yes – USP should be largely complete prior to Sr. year – IF resources are available. These are foundations, not roofs!
11. Yes – If part of their function is to prepare students for coursework to follow.
12. Maybe take a different approach – an exception that 50% be completed by 60 hrs.?

13. Yes – They should be filled in yrs. 1 & 2.
14. No – limits flexibility for majors.
15. Yes – Student should be concentrating on major at that point.
16. No – As currently done OK but most often courses are difficult to enroll in at any level.
17. Yes – Only in the case of math & English.

Question 4. Please add any additional comments to the back of the survey.

1. USP has been gutted & needs to be strengthened to meet its stated goals, which are ideal. But we need to do it in a way that doesn't create backlogs for certain courses, such as COM. That's why designating courses w/ letters (for COM, writing, service learning, etc.) improves the # of offerings in those areas. Good Luck!
2. I. Given the globalization of economics, politics, environmental issues, as well as issues of war and peace, we should have much more emphasis, for professional and personnel skills, knowledge + perceptions on cross cultural/multi-cultural knowledge and awareness. In that regard, to champion and support our stated goal of preparing students for a diverse world, we should expect more effort in foreign language and multi-cultural studies. (Most students seem to expect more F.L. requirements and appear to be very surprised when told, by most majors, that they do not require any more than two years of HS language.)
 II. A course on "general education" or a convocation or series of explaining the value, place, role of general education in the education of the "total person" would be helpful!
3. A cross-disciplinary req. should be re-instituted.
4. With increasing enrollments, it appears unlikely that major changes in USP will be possible. If anything, we will face eliminating requirements as a result of tightening budgets and limited resources - e.g., oral communications. I'm not optimistic.
5. We don't offer enough courses for our incoming freshmen. When a first semester student has to take French Lit at the 200-level or Russian culture at the 200-level b/c there is nothing else to choose from, then we have some problems. Again, sticking to more popular courses & trying to add sections to those, instead of more choices, seems like it would benefit freshmen better.
6. If requirements remain as they have been, then resources must be made available to adequately staff, with REGULAR faculty lines, the courses in ENG, MATH, COMM, CHEM, BIO, etc. so that students can take these courses in FR or SO year. I fear that we are becoming not a university, but rather a loose affiliation of independent colleges each responsible for their own USP needs. The suspension of COM for 3 years is an embarrassing statement about priorities as a university.
7. My responses do not fit your format – I do not believe we should have a one size fits all curriculum for all undergraduate students. Each college should separately define a USP structure that most closely meets the needs of their students.
8. As undergraduate enrollment has grown out of control over the past several years, it has become apparent to me that a “one size fits all” approach to USP simply is no longer tenable. Resources are insufficient to support common requirements, and unfounded mandates put extremely unfair burdens on “service” departments, and result in students being unable to complete degree requirements in a timely manner.

At this point, I think the university-wide program should be eliminated, and that individual colleges should be allowed to determine which requirements their students

should meet.

9. Re. current cross-cultural requirement – course offerings need to be re-evaluated:
 - i) Eliminate courses that are rarely offered
 - ii) Expand RAE, JAP, LAT and other offerings particularly pertinent to today’s world – especially if university were to offer companion “U.S.A./American”-cross-cultured USP requirement.

Expansion of USP Requirements would eliminate “Electives” – possibly raising strong objectives from some majors. However, students need to be prepared to be “citizens of the world” especially in a fast-paced society when they are likely to change careers several times.

10. From my perspective, the biggest problem w/ the USP program is the inability of students to get into many of the courses due to the limited # of sections offered & the frequency offered.
11. The survey should be considered a beginning finding because I fear the results will not help the committee think beyond structure & into the content of a high quality liberal arts education. Maybe that’s all that is to be expected but I don’t think so. How do we get at the “mindedness”, we want students to achieve? Kay Hoffman
12. My plan offers a range of – 32* to 38* (not counting 2 tier English though I don’t know why it can’t be included here.). 32* is w/ high school language; 38* is w/o high school language + 2 sem. At UK. Note * -- plus 2 cr. P.E.
Add: free electives: 3 or 6; 35-41 OR 38-43
Get rid of the “so-called” electives area which is the default cross-discip. category.
13. Comments for the Self-Study Committee for the University Studies Program – From the College of Education –

National accreditation requires that students in educator preparation programs have strong preparation in general education. Candidates must demonstrate that they have attained breadth and especially depth of knowledge in the disciplines covered in the University Studies Program. The following comments are offered with these requirements in mind:

- 1) Mathematics Requirement: This requirement should remain as is; however, the intent of the MA 111 course should be clarified. As understood in the College of Education, MA 111 does not fulfill prerequisite requirements for either STA 200 *Statistics* or Calculus. If MA 111 is to be a viable USP mathematics course, it needs to be designed in such a way as to fulfill the Inference and Logic USP component.
- 2) Oral Communication Requirement: We are especially concerned about the temporary suspension through 2007 of the Oral Communication requirement. Students in professional education programs are required to document proficiency in public speaking and have used the Oral Communication requirement in the past to satisfy this requirement. We look forward to the reinstatement of this requirement.
- 3) We believe the following requirements should remain as they are currently designed:

Logic-Inference Requirement
Written Communication Requirement
Social Science Requirement
Humanities Requirement
Cross-Cultural Requirement

The College of Education does not favor limiting the number of USP courses taken in the junior or senior year. Programs in the College of Education require specific courses in the USP to fulfill requirements. Currently, there are insufficient courses available during the first two years, and students are required to delay these courses until their junior and senior years. If the numbers of USP courses are limited during these years, students in the College of Education will encounter even more problems enrolling in the courses.

Additional Comments: The College of Education believes that a thorough review of current USP courses be undertaken. Courses that are not consistently offered at least once each year and courses that are regularly restricted to specific majors or for specific groups of students should be dropped as requirements.

As we reviewed the questionnaire, we noticed that there was no mention of the UK Graduation Agreement or the Kentucky General Education Transfer Agreement. Before changes are proposed to the USP in response to these two agreements, the College would like to have an opportunity to review and respond to any proposed revisions.

In summary, we are concerned that the USP has already been weakened with the elimination of the cross-disciplinary requirement, the requirement to have two courses within a single discipline, and the cluster courses. We would like to reaffirm the importance of UK having a strong general education program.

14. I have a strong interest in UK101. We currently include a small library intro. And tour in UK101. While we don't expect to teach info. Literacy, this tour gives us a chance to be sure that UK101 students know where the library(s) is and that we're here to help. I'd like to see UK101 become mandatory for all freshmen. We tested an expanded UK101 which included a major information literacy component – it didn't work. We don't have the librarian staff resources to provide it but more importantly, we don't think it works to teach library skills apart from a contextual assignment that is meaningful. In other words, they learn about libraries when they have a class assignment that demands it.
15. The program is valid – ideally it could be made more like an integrated system of topics of arts, humanities and sciences and hopefully made less diverse – without increasing credit hour total.

Appendix G: USP Syllabi Review Project

Checklist for Review of USP Syllabi

Item Frequencies for All Raters

Prepared by Deborah L. Moore

What is the length of the syllabus?

	%	<i>N</i>
1 page	4.0	276
2 pages	31.5	
3 pages	37.0	
4 pages	27.5	

Does the syllabus

	Yes %	No %	<i>N</i>
contain a course calendar (i.e., dates, topics, assignment due dates)?	82.6	17.4	305
communicate information about the relevance/importance of the course to the learner beyond a list of objectives or assignments?	61.2	38.8	304
identify the course as part of the USP program?	40.8	59.2	306
contain a description and rationale for the instructional methods?	51.0	49.0	306
contain a list of goals and objectives?	49.8	50.2	305

How well do the listed course goals/objectives represent the USP goals? (Please consider all USP goals, not just those associated with a specific segment of USP.)

	Very Well %	Some- what %	Very Little/ Not at all %	<i>N</i>
(Math) Demonstrate skills in use and interpretation of definitions, notations, and theorems that employ words and numbers to represent and solve problems.	5.9	3.9	90.2	51
(Math) Use and interpret principles of mathematical reasoning.	5.9	2.0	92.2	51
(Foreign Language) Communicate orally in simple terms using the language.	21.3	4.9	73.8	61
(Foreign Language) Read, write, and translate simple passages in the language	19.7	6.6	73.8	61
(Foreign Language) Describe some ways in which language is reflected in the culture in which it is used and also ways in which culture is reflected in its language	8.2	16.4	75.4	61

(Inference-Logic) Draw reasonable inferences from data, observations, and logical premises.	20.7	34.5	44.8	58
(Inference-Logic) Evaluate the quality of an argument or solution.	5.6	48.1	46.3	54
(Inference-Logic) Use principles of formal reasoning to solve problems.	17.5	38.1	44.4	63
(Written communication) Effectively communicate ideas through written work for various audiences.	37.3	35.8	26.9	67
(Oral Communication) Effectively communicate ideas through oral communication for various audiences.	21.0	22.6	56.5	62
(Natural Sciences) Demonstrate knowledge of major theories and phenomena associated with a field or discipline of natural science.	22.7	12.1	65.2	66
(Natural Sciences) Demonstrate an understanding of scientific reasoning.	21.5	10.8	67.7	65
(Natural Sciences) Identify the methods and practices of inquiry associated with theoretical advances in a natural science discipline.	19.7	12.1	68.2	66
(Social Sciences) Demonstrate knowledge of major theories and phenomena associated a field or discipline of social science.	37.5	32.3	30.2	96
(Social Sciences) Demonstrate an understanding of scientific reasoning.	22.4	38.8	38.8	98
(Social Sciences) Identify the methods and practices of inquiry associated with theoretical advances in a social science discipline.	33.0	34.0	33.0	97
(Humanities) Demonstrate knowledge of major developments in Western culture, particularly the interrelationships between historical, aesthetic, and literary perspectives.	24.2	13.6	62.1	66
(Humanities) Explain how cultural, historical, and intellectual forces are represented in artistic and literary works from the past and present.	22.7	13.6	63.6	66
(Humanities) Identify the methods and practices of inquiry associated with theoretical advances in a humanities discipline.	22.2	7.9	69.8	63
(Cross-Cultural) Describe some of the major developments in at least one non-Western culture.	40.7	16.9	42.4	59
(Cross-Cultural) Demonstrate an understanding of the impact of cultural differences on social interactions.	51.9	18.5	29.6	54

Would you rate this course as demanding or intensive with respect to

	Yes %	No %	N
Writing?	40.5	59.5	301
Critical reading?	46.0	54.0	302
Critical thinking/reasoning?	56.5	43.5	301

Identify assessment formats listed on the syllabus:

	Yes %	No %	N
Exams	93.5	6.5	306
Quizzes	55.7	44.3	307
Homework assignments	53.0	47.0	304
Class participation	62.7	37.3	303
Group projects/products	13.2	86.8	303

Individual projects	65.9	34.1	305
Individual oral presentations/speeches	13.4	86.6	305
Group oral presentations	10.7	89.3	299
Lead discussion	2.3	97.7	303
Critical reviews	10.2	89.8	305
Journals	5.1	94.9	296
In-class exercises	34.5	65.5	304
Peer evaluation	0.7	99.3	304
Readings	70.4	29.6	304
Group work	13.4	86.6	305
Notebooks/lab books	3.9	96.1	304
Service learning		100.0	304
Self-evaluation/self-assessment	3.0	97.0	303
Field trips	2.0	98.0	304
Lab reports	5.0	95.0	300
Posters		100.0	302
Other: <i>(see separate summary for specific assessment strategies)</i>	18.1	81.9	156

Does the syllabus provide information about the following policies?

	Yes %	No %	N
Grading scale and standards	78.0	22.0	304
Criteria/weight for graded assignments	93.8	6.3	304
Attendance	78.8	21.2	306
Late assignments	51.3	48.7	302
Make-up exams	58.6	41.4	302
Assignment revisions	13.5	86.5	303
Academic dishonesty	49.7	50.3	302
Classroom conduct	37.3	62.7	306
Accommodation of disabilities	6.0	94.0	302
Credit hours earned	7.2	92.8	306
USP requirement met	43.1	56.9	304
Prerequisite courses	7.5	92.5	305
Required text/s	91.8	8.2	304

Appendix H: Graduating Senior Survey (2003-2004)

University Studies Program Items

Graduating Senior Survey - Graduated in 2003-2004 Academic Year
Results for UK Overall

4. Indicate how much you agree or disagree with the following statements about: UNIVERSITY STUDIES PROGRAM:	Number of Responses	Percentage of Responses					Mean	StDev
		Strongly disagree	Disagree	Not sure	Agree	Strongly agree		
Question								
a. Most of my USP courses have been intellectually challenging	2,040	3.48	25.83	12.30	55.59	2.79	3.28	0.99
b. I understand why USP courses are required	2,043	4.01	11.85	13.02	62.75	8.37	3.60	0.94
c. I understand how the various USP requirements fit together	2,042	3.23	13.52	19.05	57.59	6.61	3.51	0.92
d. Most of my USP instructors described the goals of the courses	2,037	7.81	35.79	21.65	31.57	3.19	2.87	1.05
e. The quality of instruction in my USP courses was as good as my major courses	2,039	9.12	29.23	13.24	42.82	5.59	3.07	1.14
f. I understand the value of USP courses better now than at the time I took them	2,033	3.98	20.27	21.20	49.04	5.51	3.32	0.99
g. The broad range of choices among courses to meet USP requirements was important to me	2,039	3.29	10.25	12.95	56.65	16.87	3.74	0.97
h. I found USP requirements difficult to understand	2,036	12.33	57.76	13.46	14.00	2.46	2.36	0.95

*Note: When items appeared on the old and new survey forms using different scales, results are reported on two separated tables. Items on tables depicting results for the old survey form are noted with a double asterisk (**). Items on tables listing the findings for the new survey form are noted with a single asterisk (*).*

Appendix I: A Brief Summary of University of Kentucky Focus Groups

**A Brief Summary of
University Studies Program
Focus Groups**

April 2003

**University of Kentucky
Office of Institutional Research, Planning and Effectiveness
Deborah L. Moore, Director of Assessment
and
JoLynn Noe, Planning and Effectiveness Specialist**

EXECUTIVE SUMMARY:

- This report provides a summary of the findings from three focus groups with junior status students enrolled at the University of Kentucky in April 2003. The purpose of this study was to gather information for the University of Kentucky University Studies Program for use in making future decisions about the curriculum of the program.
- The opinions and experiences of the respondents seemed to be very different for those students who entered the university with a declared major and those who were undeclared. Students who had already chosen a major as freshmen reported that they did not feel as though they needed to take as many USP courses. Students who were undeclared stated that the USP courses helped them to make decisions about what they would like to major in.
- Some respondents embraced the USP experience and felt as though an attendance policy should be put in place so that all freshmen would be more likely to attend their USP classes. Other respondents disagreed strongly and felt that students should not be made to “suffer through” courses they did not enjoy, especially when they are paying for their classes. These respondents also felt that if they could learn the material on their own, they did not need to attend classes.
- There was an overall consensus that the teacher made the difference in whether or not the respondents valued their USP courses. Many respondents reported that teachers who were passionate about the subject matter or who had interesting life experiences to relate made the class more interesting and valuable. The respondents also preferred small class settings, including labs and night and evening classes, where they could have closer personal interaction with both their professors and other students.
- Many respondents reported that their USP instructors rarely, if ever, mentioned USP. The respondents recalled USP being discussed while covering the course syllabus on the first day of class and at the course-end evaluations. Some respondents mentioned that their professors discussed USP in a negative manner with comments such as, “You have to take this course because it is a USP requirement,” or “we are forced to include writing on our exams to meet the USP writing requirement.”
- The respondents reported an overall dissatisfaction with student advising, with the exception of a few students who found their advisors to be helpful. Some noted that their advisors seemed hurried, confused about which courses they need to take, and/or uncaring about the needs of the students.

METHODOLOGY:

- Three separate two-hour long focus group sessions were conducted with small groups of University of Kentucky juniors to discuss the University Studies Program.
- The students were asked to respond to a series of thirteen questions regarding their experiences and opinions of education and USP.
- The students were also asked to complete portions of two surveys and give feedback about the content and format of those surveys.
- 19 students participated in the focus groups. 10 of the participants were male, 9 female. 17 listed Caucasian as their race, 2 Asian. The age range of the participants was 20 to 45 with 16 of them being 20 to 21 years of age.

1. Opening question: Let's start by finding out everyone's hometown and major?

- The majority of the students were from the Lexington/Louisville area with a few being from out-of-state.
- Their majors included: 2 Integrated Strategic Communications, 2 Elementary Education, 2 Economics, 2 Civil Engineering, and 1 each of Psychology, Political Science & Economics, Agricultural Biotechnology, Broadcast Journalism, Decision Science & Information Systems, Pre-pharmacy, Finance, Art Education & Art Studio, Management, Finance & Management and Social Work.

2. Most of the questions I'm going to ask will be about USP specifically, but first I want to know a bit about your ideas about the purposes of a college education. Let's start with this. I'd like you to finish this statement: To me, being an educated person means _____.

COMMON THEMES:

- There is a difference between formal education (i.e. going to school) and having knowledge.
- It involves having life experiences.
- It means having job skills and being prepared to do your job. It is a stepping stone to obtaining a higher income.
- It is about possessing the ability to learn.
- It means being a well-rounded person.

UNIQUE IDEAS & COMMENTS:

- Being educated involves being open-minded.

- It's about being of value to society.

3. Now, I want to ask a similar question but from a different angle? What do you think employers in Kentucky and other states expect in terms of skills and knowledge from college graduates that they hire?

COMMON THEMES:

- They expect you to have skills in your job field.
- They are more likely to hire well-rounded people who have the ability to learn.
- Flexibility, including the ability to adapt to different situations and being open-minded is important.
- Communications, computer skills and the ability to multi-task were all specific skills that were mentioned.

UNIQUE IDEAS & COMMENTS:

- There was discussion about whether hands-on experience such as internships and practicums is a good or bad thing.

4. How was the purpose of USP described to you? Who were the people that described the purpose of USP to you?

COMMON THEMES:

- It was never explained to me.
- My advisor may have mentioned it in freshman advising.
- My peers explained it to me – either they described USP as a good thing (to help me choose a major) or as a bad thing (courses you just have to “get through”).

- It was explained to me as general requirements I had to take but not as USP specifically.

UNIQUE IDEAS & COMMENTS:

- USP was explained in more detail to those students who attended the Freshman summer seminar or were part of cohort groups.

5. In choosing your USP courses, how did you go about making your choices among the various options? Who, if anyone, helped you make your choices?

COMMON THEMES:

- My peers helped.
- I used course catalog sheet.
- I used the checklist from my major sheet of course requirements.
- I had little help from my advisor, so I chose them on my own, basing my choices mostly on personal interest.

6. How difficult or easy was it to understand what you needed to satisfy the USP requirements? (Probes: What did you find complex about it, if anything? What made it easy? What made it difficult?)

COMMON THEMES:

- It was pretty easy, I just used the list in the UK Bulletin or major sheet.
- The cross-cultural/cross-disciplinary requirement was confusing.
- Scheduling/time constraint issues made it difficult to choose courses.
- The Humanities series requirement was confusing.

UNIQUE IDEAS & COMMENTS:

- Students were confused about certain courses being able to meet more than

one USP requirement, such as Honors courses.

7. What does it mean to be “academically engaged” in your studies? How can you tell whether a student is academically engaged or not? Whether you are academically engaged?

COMMON THEMES:

- It means doing the work because you want to, not because you have to.
- It means actually attending class.

UNIQUE IDEAS & COMMENTS:

- Students tended to describe more about what being academically engaged is not, rather than what it is.

8. With respect to your USP courses and experiences, which were the most academically engaging for you? And how about your classmates?

COMMON THEMES:

- Calculus and foreign languages because I had to stay “with it” and not miss any classes or I’d fall too far behind.
- Psychology because of labs, experiments and small group interaction.
- Sociology and Anthropology
- Smaller class sizes and teachers who are “into it” make a big difference, no matter what the course is.

UNIQUE IDEAS & COMMENTS:

- Students reported that they preferred taking USP classes at LCC or during summer or night school because of the smaller class sizes.

9. **Think about the instructors in your USP courses. What types of in-class and out-of-class experiences and assignments did they design that were academically engaging for you?**

COMMON THEMES:

- Students enjoyed events that were unusual or unique where instructors used teaching techniques other than just lecturing.
- Specific activities mentioned included: asking students to attend a religious service outside of their religion, bringing a person into class who had a transgender operation, using board games to stimulate communications and using videos.

10. **How did your USP instructors convey the goals of your USP courses?**

COMMON THEMES:

- It was mentioned on the first day of class when the instructors went over the syllabus.

UNIQUE IDEAS & COMMENTS:

- Students seemed to confuse the USP goals with course descriptions – they did not understand the difference between the two.

11. **How often did your USP instructors convey information about goals of the course in relationship to the whole program? That is, how the course fit into the program as a whole?**

COMMON THEMES:

- It was mentioned on the first day when we went over the syllabus.
- It was mentioned at the course-end evaluations.
- It was never brought up.

UNIQUE IDEAS & COMMENTS:

- One student noted that her science professors only mentioned USP (with a negative connotation) when explaining to the students why they had to complete a writing requirement.

12. **Which of your USP courses or experiences have added the most value to you becoming an educated person, as we talked about at the beginning of this conversation? (Probe: What about meeting employer expectations?)**

COMMON THEMES:

- All of the courses helped students to become well-rounded individuals.
- English and Foreign Language courses were mentioned specifically as courses that were useful.
- Students who entered the university as undeclared majors seemed to find USP more helpful than those students who already knew their major as freshmen.

13. **Here's the last specific question, what one specific recommendation do you have for improving the USP program?**

COMMON THEMES:

- USP should be made optional or scaled back for those students who have already chosen a major.

- The university should choose advisors and teachers more carefully.
- More options/class times should be added due to scheduling/time constraints.
- USP should consist of a very simple core of required courses; choices beyond that should be guided by the student's major.

14. Any last comments? (Invite individual comments to be sent to me by email.)

**OTHER INTERESTING
IDEAS/COMMENTS NOT
SPECIFICALLY RELATED TO
THE QUESTIONS:**

- Students who transferred in or were late in registering at the university need different orientation and advising than true freshmen.
- Students really seemed to enjoy and value the Freshman Discovery Seminars.

**Appendix J: Report to the Dean of Undergraduate Studies
from the
ad Hoc USP Inference Requirement Subcommittee**

**Report to the Dean of Undergraduate Studies
Ad Hoc USP Inference Requirement Subcommittee**

This report is submitted to Dr. Phil Kraemer, Dean of Undergraduate Studies, from the Ad Hoc USP Inference Requirement Committee. The Committee, appointed by the Dean, includes

Bill Bush, Curriculum and Instruction, Committee Co-Chair
Carl Lee, Mathematics, Committee Co-Chair
John Christopher, Physics
Lillie Crowley, Mathematics, Lexington Community College
David Durant, English
Sandy Goldberg, Philosophy
Judy Goldsmith, Computer Science
Keith Johnson, Finance
Mary Marchant, Agricultural Economics
Bill Rayens, Statistics

The Committee was asked to review the current USP Inference requirement and make recommendations on whether and how it might be changed to better serve the needs of students at the University of Kentucky. The Committee met seven times between October 1, 2000 and February 1, 2001. Committee members reviewed the following national, state, and campus reports, which provided background information on research and experiences of various professional and academic institutions.

- *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*, by the Boyer Commission
- *Shaping the Future: New Expectations for Undergraduate Education in Science, Mathematics, Engineering, and Technology*, by the National Science Foundation
- *Quantitative Reasoning for College Graduates: A Supplement to the Standards*, by the Mathematics Association of America
- *Mathematical Preparation of Teachers Project*, by the Conference Board of Mathematical Sciences
- *The ASA Undergraduate Statistics Education Initiative*, by the American Statistical Association
- *Undergraduate Education and the Future of Academic Statistics*, by David Moore
- *Best Practices in Introductory Statistics*, by Garfield, Hogg, Schau, and Whittinghill
- *The Case for Undergraduate Statistics*, by Scheaffer and Lee
- *The Teaching of Philosophy*, by the American Philosophical Association
- *Standards for Transition: Descriptions of the Skills and Knowledge Associated with PLAN and ACT Assessment Scores*, by ACT, Inc.
- *Recommendations to the Kentucky P-16 Council*, by the Mathematics Alignment Team (Draft)
- *The President's Initiative on Undergraduate Education in Kentucky's Comprehensive Research University*

- *Report to the Vice President for Research and Graduate Studies and to the Chancellor of the Lexington Campus*, by the UK Task Force on Mathematics, Science, and Technology Education
- External Review of the UK Department of Mathematics

In addition, Committee members also reviewed the following:

- The quantitative, inference, and mathematics basic skills and general studies requirements of 19 benchmark institutions (see Appendix C for a summary).
- Representative class syllabi and assessments from UK courses MA 109, MA 123, PHI 120, PHI 320, STA 200, CS 275, CS 375, and a University of Louisville course entitled Contemporary Mathematics.
- Data from a survey and grade analysis of students who completed MA 108R, MA 109, MA 123, and STA 200 conducted by the UK Task Force on Mathematics, Science and Technology Education
- A summary of mathematics, statistics, and philosophy course requirements beyond the USP requirements for all majors at UK (see Appendix B for the summary).
- High school and college mathematics textbooks

Goal of the USP Inference Requirement

After considerable analysis and discussion, the Committee decided that the USP Inference requirement should provide students with the necessary inductive and deductive reasoning skills to succeed in their majors and in life beyond the university. In fulfilling of this requirement, all UK students should work with numerical data and computation, solve challenging problems, apply reasoning to "real-world" problems, and communicate their reasoning as well as the results of their reasoning. A brief explanation of deductive and inductive reasoning is provided in Appendix A.

Recommendations for Changing the Inference and Basic Skills Requirements

To ensure that all students have appropriate inferential experiences, the Committee offers the following recommendations for improving the current USP Inference and Basic Skills Requirements:

Inference Requirement

- 1. All students must complete two three-semester-hour courses (or equivalent), one focusing on induction and one focusing on deduction, to meet the USP Inference Requirement.**

Discussion: The Committee felt that both inductive reasoning and deductive reasoning were necessary for every student in higher education. Few single courses, however, are able to provide adequate opportunities for students to develop both types of reasoning. The Committee identified two sets of existing courses that have the potential to develop students' inductive and deductive reasoning skills sufficiently:

Deductive

MA 113 Calculus I
MA 123 Elementary Calculus and its Applications
MA 162 Finite Mathematics and its Applications
MA 202 Mathematical Problem Solving for Elementary School Teachers
PHI 120 Introductory Logic
PHI 320 Symbolic Logic I

Inductive

PSY 216 Applications of Statistics in Psychology
STA 200 Statistics: A Force in Human Judgment
STA 281 Probability and Statistics using Interactive Computer Techniques
STA 291 Statistical Methods
STA 321 Basic Statistical Theory I
STA 381 Introduction to Engineering Statistics

2. **Courses that are selected to fulfill the Inference Requirement must meet the following three criteria: (a) inductive or deductive reasoning must be a central focus; (b) problem-solving skills must be developed and real-life situations and problems must be explored; and (c) assessments must include written and perhaps oral communication of reasoning and results of reasoning. For these three criteria to be met effectively, active participation of students during classes is essential.**

Discussion: The Committee felt that both content and delivery were important in determining whether or not a course would be included to fulfill the Inference requirement. The development of inductive and deductive thinking requires appropriate content with which to reason and appropriate teaching approaches to ensure that students are given the opportunity to develop their reasoning skills sufficiently. Therefore, the primary focus of these courses should be on the development of reasoning skills, and students should have ample opportunity to develop these skills and to demonstrate that they have developed them during the course. The Committee felt that it is also important, for sake of relevance and motivation, that beyond the formal development of deductive and inductive reasoning skills, students should have the opportunity to apply these reasoning and problem-solving skills within the context of real situations. Finally, for practical purposes students must learn to communicate their reasoning with others. The ability to reason without the ability to communicate reasoning is not particularly useful.

3. **A new mathematics course should be developed as one choice to meet the deductive requirement. In the spirit of the survey course proposed by the recent external review of the Department of Mathematics, this new course might be based on a text similar to *For All Practical Purposes*.**

Discussion: The Mathematics Association of America recommends that college courses build quantitative literacy; that is, courses that help students build and use mathematical models to develop important reasoning skills and illustrate to students how mathematics is useful. The courses have been particularly popular with students who major in fields that require little formal mathematics (e.g., fine arts, humanities, foreign languages). Although such quantitative literacy courses are offered at other Kentucky universities and at

benchmark institutions around the country, the University of Kentucky currently does not have such a course available to students.

- 4. Conduct an impact analysis on the consequences of these changes and supply the necessary resources (faculty, staff, graduate student support, graders, technology) to ensure that students have adequate access to the courses. In particular, a cursory analysis indicates that the Statistics Department will be affected most by these changes.**

Discussion: Changing USP requirements has an impact on Colleges and Departments. Some units will require fewer resources; others will require more. An initial analysis of the impact of these changes, by examining previous course-taking patterns, is necessary. Subsequently, data should be gathered over several semesters to determine what new patterns emerge once the changes are implemented. Both analyses should reveal how resources ought to be provided or shifted to ensure that units can deliver courses to meet student demands. Experience from a similar change in general studies requirements at Ohio State University indicates that additional resources beyond new faculty and graduate students should be considered. Departments may need additional secretarial staff, graders, classroom space, and technology to support the changes in course offerings.

- 5. Provide professional development for graduate students and faculty who would teach these courses to ensure that they teach the courses in a manner consistent with the criteria defined previously.**

Discussion: The Committee discussed the struggles that many graduate students and faculty have in teaching courses that develop reasoning skills, include real-world problems, and encourage written and oral communication. These students and faculty members are largely products of their experiences. Their courses in logic, mathematics, and statistics often did not place strong emphases on these important criteria. As a result, their approach to teaching may tend to focus more on lecture while their students' learning may tend to rely more on memorization. Professional development will be needed to assist these instructors in changing their teaching methods to ensure that students reason, work with real problems, and have opportunities to communicate both orally and in writing.

- 6. Establish an Inference Oversight Committee (perhaps a subset of the USP Committee) to ensure that course content and delivery continue to meet the criteria defined previously and to evaluate courses that are to be included in the lists.**

Discussion: Some of the courses presented in this recommendation do not fully meet all three criteria for inclusion in the lists to fulfill the Inference Requirement, and they will require some revision. Some courses currently offered at UK may clearly meet the three criteria for inclusion. Finally, courses, and the teaching approaches used to deliver them, change over time. For these reasons, an Inference Oversight Committee is needed to ensure that all courses taught within the Requirements adhere to the criteria, and continue to adhere to the criteria over time. This committee would also establish appropriate criteria for fulfilling any part of the Inference Requirement by ACT scores, by-pass exams, or AP credit.

Basic Skills Mathematics Requirement

It became evident that changes in the Requirement would also require changes in the mathematics component of the Basic Skills Requirement. Upon careful review of high school and college textbooks, ACT recommendations, and student performance data, we offer the following recommendations regarding the Basic Skills Mathematics Requirement:

- 7. Develop a new Basic Skills mathematics course at the level of MA 109 but covering a broader range of mathematical topics such as geometry, probability, statistics, and discrete mathematics. This course would serve as a logical prerequisite for STA 200 and the course identified in recommendation #3 for those students who do not meet the ACT mathematics requirement.**

Discussion: MA 109 is focused exclusively on the development of algebraic proficiency and reasoning. Courses like STA 200 and the new proposed course will require proven proficiency in other areas of mathematics. Students in majors that do not require calculus would benefit from exposure to a broader range of mathematical topics, and such a course is in greater agreement with the current NCTM high school standards. MA 109 should continue to serve as a prerequisite for calculus courses.

- 8. Establish an ACT mathematics score of 21 or higher as an entrance requirement for MA 109 and the new course identified in Recommendation 7. Students with an ACT mathematics score less than 21 should take non-credit remedial courses.**

Discussion: ACT's *Standards for Transition* (www.act.org/standard/planact/math.html) indicate that scores of 24-27 reflect mastery of topics typically found in Algebra I (a course usually taken in the 8th or 9th grade). Scores of 28 or higher reflect mastery of topics typically found in Algebra II. (But one should be aware that topics from geometry, probability, statistics, and data analysis are also tested on the ACT exam.) Data compiled by the UK Task Force on Mathematics, Science, and Technology suggest that students with ACT mathematics scores of 21 and higher are far more likely to succeed in MA 109 than students with lower scores.

- 9. Establish an ACT mathematics score of 23 or higher as an entrance requirement for STA 200, MA 123, and the mathematics course identified in Recommendation 3. Students with mathematics ACT scores lower than 23 should take MA 109 or the new Basic Skills course identified in Recommendation 7.**

Discussion: ACT's *Standards for Transition* indicate that scores of 28 or higher reflect mastery of topics typically found in Algebra II. Data compiled by the UK Task Force on Mathematics, Science, and Technology suggest that students with ACT mathematics scores of 24 and higher are considerably more likely to succeed in STA 200 and MA 123 than students with lower scores.

Appendix A: Deductive and Inductive Inference

Inference is deductive if the truth of an inferred conclusion is ensured by the truth of the premises. As one example, if a set of axioms or assumptions is chosen, and if a statement can be derived from these axioms by a finite sequence of statements using the rules of first-order logic, then the statement is deemed a theorem.

Though the techniques of formal logic are clearly relevant to formal disciplines such as mathematics, they are also more widely useful insofar as they provide a kind of check against fallacious reasoning often encountered in more everyday contexts. As one example consider the fallacy known as "Affirming the antecedent." This type of fallacy is exhibited when, given (1) a conditional statement such as "If it is raining then the streets are wet" and (2) an assertion of the consequent ("The streets are wet"), one infers an assertion of the antecedent ("It is raining"). The techniques of formal logic enable us to detect this and other, more sophisticated types of fallacy.

It is worth noting (in connection with the use of logic in formal disciplines such as mathematics) that, although all mathematical reasoning could be construed as deductive reasoning, not all mathematics courses are necessarily acceptable exercises in deductive reasoning. For instance, a course that revolves around memorization of mathematical facts, or one that relies on problem solving via simple analogy to a set of prototypical problems would be, at best, weak in the development of deductive reasoning skills.

Inference is inductive if a general principle is constructed from special cases. Inductive inferences involve some notion of uncertainty since the special cases typically neither equate to the general principle nor allow its deduction from their statement. For example, exit polls involving only a relatively small fraction of voters can be used to estimate the percentage of all voters supporting Candidate X. Understanding how to deal with the uncertainty in this process is important. Such is the primary focus of statistical science.

The proper development of inductive reasoning skills will involve more than the simple computation of statistics or the rote execution of hypothesis testing paradigms. Indeed, such activities are mostly concerned with exercising deductive reasoning skills. The intelligent consumption of common, everyday statistical information requires an ability to understand some of the sense in which statistical science can use these simple computations to construct rigorous inductive arguments that address the general principles under scrutiny.

Appendix B: A summary of mathematics, statistics, and philosophy requirements of majors at UK

Deductive and Inductive Requirements beyond USP at UK

College	Major	Deductive Req.	Inductive Req.
Allied Health	Health Services Management	MA 123 or 112	
	Physician Assistant		
	Clinical Laboratory	Mathematics	STA
	Communication Disorders		
	Physical Therapy	MA (Str. Rec.)	STA
Architecture	Architecture	MA 109, 112, 123	
A & S	Air Force ROTC		
	Anthropology		
	Biology	MA 113 or 123	
	Chemistry	MA 113 or 132, 114	STA (option)
	Classics		
	Economics	MA 113 or 123+162	STA 291
	English		
	Foreign Lang & Int Econ.		STA 291
	French		
	Geography		
	Geology	MA 113/114	STA or CS
	German		
	History		
	Latin American Studies		
	Linguistics	MA (option)	
	Mathematics	MA 113/114	STA (option)
	Military Science		
	Philosophy	PHI 320	
	Physics	MA 113/114/213	
	Political Science		
Psychology		PSY 216	
Russian and East Eur. St.			
Sociology		STA (str. rec.)	
B & E	All majors	MA 113 or 123+162	STA 291
Com. & I. S.	All majors	MA or CS (6 hrs.)	STA

College	Major	Deductive Req.	Inductive Req.
Education	Elementary	MA 201/202	
	Middle School (math)	MA 123 or 113	STA 291
	Middle School (other)		
	Learn & Beh Disorders	MA 201/202	
	Moderate/Severe Disorders	MA 201/202	
	Kinesiology		
	Health Promotion		
	Secondary Education (math)	MA 113/114/213	STA 291
	Secondary Education (science)	MA 113	
	Secondary Education (other)		
Engineering	Biosystems/Agricultural Eng.	MA 113-214	
	Chemical Engineering	MA 113-214	
	Civil Engineering	MA 113-213	
	Computer Science	MA 113/114	STA 281
	Electrical Engineering	MA 113-214	
	Materials Engineering	MA 113-214	STA 381
	Mechanical Engineering	MA 113-214	
	Mining Engineering	MA 113-214	STA 381
Fine Arts	All majors		
Human ES	Family and Consumer Sciences	PHI 120	STA 200
	Family Studies		STA 200
	Interior Design, Merch, Textiles	PHI 120	STA 200
	Merchandising, App, Textiles	MA 109/PHI 120	STA 200
	Dietetics		STA 200
	Food Science	MA 113	STA 291 or 370
	Hospitality Management		STA 200
	Human Nutrition	MA 113 or 123	STA 291
Nursing	Nursing		STA 200
Social Work	Social Work		STA

Appendix C: Summary of Inference/Qualitative General Studies Requirements at Benchmark Institutions

Institution	Basic Skills	Title	Math	Stat	Logic	Others	Hrs.	Comments
NC State	None mentioned	Mathematical Sciences	Req.	Opt.	Opt.		6	
Ohio State	MA 075/104	Mathematical and Logical Analysis	Opt.	Req.	Opt.	Computer Science-Opt.	6	
Penn State		Quantification	Opt.	Opt.	Opt.	Computer Science-Opt.	6	
U. of Arizona		Natural Sciences	None	None	None	Natural Sciences	9	All science; no math, stat, logic
UCLA		Quantitative Reasoning	Opt.	Opt.	Opt.	Antro., Bio., Comp. Sci., Econ., Geog., Pol. Sci., Soc.	3	High SAT opts student out
Univ. of Fla.	Computation (6 hrs. math + c.s., stat. phi.	Mathematical Sciences	Req.	Opt.		Computer Science-Opt.	6	Confusing-Comp. and M.S. may be same
UGa	3 hours--Math	Science, Math, & Technology	Opt.	Opt.	Opt.	Comp. Sci. and other sciences	3	May avoid math, stat., logic
Univ. of Ill.		Quantitative Literacy	Opt.	Opt.	Opt.	Computer Science, Economics, Sociology Opt.	3	Most options are statistics courses
Univ. of Iowa		Quantitative or Formal Reasoning					3	
Univ. of Maryland	3 hrs. Math/Stat	Mathematics and the Sciences	Opt.	Opt.	Opt.	Sciences	10	May not take any math/stat/logic
Univ. of Michigan		Quantitative Reasoning	Opt.	Opt.	Opt.	Sciences, Economics, Communications	3/6	May not take any math/stat
Univ. of Minnesota		Mathematical Thinking	Opt.	Opt.	Opt.		3	Variety of courses from different departments
UNC	3 hrs.	Mathematical Sciences	Opt.	Opt.	Opt.		3	
Univ. of Texas		Natural Sciences	Opt.	Opt.	Opt.	Sciences	3	
UVa		Natural Sciences and Mathematics	Opt.	Opt.	Opt.	Sciences	12	May not take a math or statistics course
Univ. of Washington	3 hrs.	Natural World	Opt.	Opt.	Opt.	Wide array of sciences of other courses	20	
Purdue		Math & Statistics	Req.	Req.			6	Some sta. courses are front business, psy., soc., P.s.
Texas A&M		Mathematics/Logic	Req. (3)		Opt.		6	At least one math
Univ. of Wisconsin		Quantitative Reasoning	Opt.		Opt.	3 hrs in sciences, econ., cs, stat, acc., pol. sci.	3-6	3 hrs. in math or phil. required