

PREPARED BY THE GENERAL EDUCATION
SUBCOMMITTEE OF UWIC

GENERAL EDUCATION REVIEW

FINAL REPORT TO THE UCF

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“Education is not the filling of a pail,
but the lighting of a fire.”

William Butler Yeats

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PREFACE

This committee, after fulfilling its charge of reviewing general education at the national level and at Southern Connecticut State University, recommends that the next step in the reform process be the formation of a General Education Task Force. This task force shall be charged with:

- ✎ Identifying goals, objectives and outcomes for a general education program at Southern,
- ✎ Proposing those goals, objectives and outcomes for a UCF vote and faculty referendum, and
- ✎ Devising and implementing a self-assessing and coherent general education program, informed by current thinking and practices, that meets the previously approved goals, objectives and outcomes for a UCF vote and faculty referendum.

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INTRODUCTION

In the Fall of 1999, the University Wide Impact Committee (UWIC) of the Undergraduate Curriculum Forum was charged with reviewing general education at Southern Connecticut State University. To focus on this charge, the General Education Review Subcommittee of UWIC was formed and met every other week during the academic year and several times during semester breaks. As a committee, we attended conferences, sought expert advice, read literature on the current trends in general education, conducted a survey of the faculty, and discussed issues relevant to general education at the national, regional, and local levels. This report summarizes our findings.

RATIONALE

This committee undertook a review of general education not only because it was charged to do so by a UCF charter, but for a variety of other reasons as well. First, the New England Association of Schools and Colleges (NEASC), who serves as the university's accrediting agency, in its most recent report, claimed that Southern needs to reform its general education program because it is outdated. NEASC ensures that our graduates demonstrate competence in "written and oral communication; the ability for scientific and quantitative reasoning, for critical analysis and logical thinking; and the capability for continued learning. Students must also demonstrate knowledge and understanding of scientific, historical, and social phenomena, and a knowledge and appreciation of the aesthetic and ethical dimension of humankind."¹

Secondly, Southern's Strategic Plan for 2001-04 explicitly calls for "reaffirming and reforming the All-University Requirements."² Southern's Mission Statement calls for a general education review, especially in its last bullet which states that Southern "commits itself to strive for continuous quality improvement in all its efforts....through systematic self-evaluation and assessment of outcomes."³ Perhaps most important is President Adanti's Vision Statement: "We will make SCSU a preeminent public academic institution in New England,"⁴ an admirable goal that, given the recent national and regional attention to reform in general education, can be achieved only by addressing the current state of our All-University Requirements.

Thirdly, several accrediting agencies for professional programs, in line with the national accreditation trend that places more emphasis on general education than it has in the past, are requiring that students have a rich and rigorous general education experience. Professional accrediting bodies such as the National Council for Accreditation of Teacher Education (NCATE), the Computer Science Accrediting Board (CSAB) and the American Association of Colleges & Nurses (AACN) view general education not as a separate or distinct segment of professional education, but as an integrated educational experience, recognized and valued as an ongoing, life-long process.

Most important, however, is the fact that our professional responsibility requires a review of general education—we need to provide our students with the best education possible, and that includes, perhaps primarily, their general education. As a faculty, we must ask ourselves, and answer honestly, the following questions:

¹ NEAS&C Standards for Accreditation, Commission on Institutions of Higher Education, 1992.

² "Strategic Plan for SCSU: Fiscal Years 2001-02 to 2003-04", Objective 1.4, page 7.

³ "Strategic Plan for SCSU: Fiscal Years 2001-02 to 2003-04", page 2.

⁴ "Strategic Plan for SCSU: Fiscal Years 2001-02 to 2003-04", page 3.

?? Are we satisfied with the level of skills and knowledge that our students bring to their upper-division courses?

?? If we did not already have a general education program and were to design one, would it look like the one we now have?

By providing students with the best possible general education, we adhere to the requirements of accrediting bodies and meet some of our professional responsibilities as well.

LITERATURE REVIEW AND CONFERENCE PROCEEDINGS

The publication in 1977 of the Carnegie Report on higher education, *Missions of the College Curriculum*, propelled a number of changes in the structure of college education. The report sharply criticized the fragmented state of undergraduate education in the United States and recommended introducing or re-introducing more rigorous university-wide core curricula. The highly influential report led to significant restructuring of general education at over 200 colleges and universities over the next decade and a half (Gaff and Wasescha, 1991). Among the major research institutions that have undertaken significant revision of general education curricula in the last 10 years are Princeton University, 1995, Stanford University, 1996, and Duke University, 2000 (MacDonald). The trend towards re-emphasizing core curricula and general education has received additional impetus from the Association of American Colleges and Universities (AAC&U), which has sponsored numerous conferences and publications on the topic of general education reform. The national dialog growing out of AAC&U's efforts has engendered a consensus on the problems that face liberal education in general and general education in particular, and consensus on the types of solutions that have been effective in confronting those problems (AAC, 1985; Schneider and Shoenberg, 1998).

CRITIQUES OF EXISTING PRACTICE

Both scholarly research and institutions reviewing their general education programs have identified several problems associated with the model of general education known as the *loose distribution* system (the type we have at Southern). A loose distribution system, requiring simply that students select from among a set of more or less unrelated courses, has certain advantages in that the system is easy to administer, necessitating only that the catalog clearly set out the choices and that the registrar's office ensure that students fulfill the requirements. Nevertheless, both the research and many general education reviews conclude that this system fails to provide the kind of skills and knowledge needed in today's world at a level adequate for students.

Among the shortcomings of the loose distribution system are the following. The faculty has no control of the general education curriculum because, by its nature, the loose distribution system neither encourages nor requires collaboration and oversight; therefore, the curriculum often lacks a coherent educational philosophy beyond that of exposing students to a wide variety of subject matter. Furthermore, the actual content of such programs reflects more a political compromise than a concern about what is best for the students. Additionally, teaching non-majors is frequently of little interest to faculty and often viewed as merely a "service." Consequently, students fail to see a purpose to a liberal education and so lack interest in their general education classes; this perception of pointlessness is reinforced by advisement that encourages students to get their general education courses "out of the way."

CONTEMPORARY TRENDS IN GENERAL EDUCATION REFORM

Trends in the scholarly literature and in conference proceedings concerning general education reform include changes in content, pedagogy, and structure of general education programs.

CONTENT

In terms of content, several salient themes appear. One is a more explicit focus on the intellectual skills such as critical thinking, reading, and communication. So, rather than placing the curricular focus entirely on discipline-based information, reforming institutions emphasize the use of disciplinary information to develop students' intellectual skills (e.g., problem solving). Moreover, this approach is coordinated from course to course in the general education program. Another theme is a pointed emphasis on understanding both the global community and the diversity of community in the United States. Another item of concern is providing a solid grounding in technology, its uses, and its social implications, expanding this category to embrace the notion of information literacy: sources, management, and uses of information. Furthermore, issues of morality, ethics, and civic responsibility are given renewed attention in all curricular areas. Finally, the teaching of science to non-majors has received considerable attention. There is a movement away from teaching general education science as a watered-down version of an introductory course for majors toward focusing on issues that enable students to become better prepared to engage in social issues requiring an understanding of science.

PEDAGOGY

Changes in pedagogy principally revolve around the notion of student-centered (inquiry-based) methods. The focus shifts from the teacher and teaching inputs to the student and learning outcomes, with a major emphasis on the solving of unscripted problems in groups or collaborative settings. Also, attention is given to modalities of learning (i.e., aural, visual, interactive) and integrating a variety of these into the curriculum.

STRUCTURE

By far the greatest changes in general education programs are structural in nature. Of these, three stand out as paramount. One is a renewed emphasis on establishing well-articulated goals for general education, the importance of which is well understood by both faculty and students. Statements of such goals tend to be concise and to the point rather than long meandering lists. Furthermore, goals may reflect the demographics of the university, and are frequently tied explicitly to its mission. For example, Longwood College in Virginia has the mission of training the next generation of Virginia's leaders, so its general education goals reflect this mission.

A second structural element of great importance is the establishment of a means of evaluating the effectiveness of the general education program vis-à-vis the program's goals and a mechanism for modifying the program in response to that evaluation. This process is essentially an assessment process. For example, one of the national model institutions, Miami University (Ohio) includes a series of guidelines for building a quality program. It also gives information about an institutional inventory of liberal education practices used as a point of reference for thinking about the plan's implementation.

A third keystone of structural change is providing coherence to the courses in general education. There is a move away from the pure loose distribution system toward a modified core structure. The modified core system has many elements of a true core curriculum in that courses have some degree of sequencing and purposeful integration of learning between courses. This is not to say that content is mandated but rather that a certain amount of communication and planning are required of the

general education faculty. An emphasis on interdisciplinary courses or sequences of courses is commonly developed. Indeed, a few institutions have incorporated these changes into restructured general education programs, giving new life to general education by elevating its status in the curricular hierarchy to parity or near parity with the majors.

Another key idea that appears in the literature is that successful general education programs typically involve a structure for faculty and administrative coordination and oversight. A full-time coordinator, whether from the faculty or the administration, helps ensure that the goals of the general education program are being effectively served.

BENEFITS OF A STRONG GENERAL EDUCATION PROGRAM

The benefits (demonstrated statistically in several cases) of developing a strong general education program include increased student learning at all levels and better academic skills in upper-level (and lower-level) classes, and graduates better prepared for self-reflection and for contribution to the community (e.g., in schools, at work, through civic organizations). Several institutions have developed *signature* general education programs - programs of distinction that enhance the sense of institutional identity and draw stronger students. Some colleges and universities have attributed increased admissions partly to interest in a compelling general education program, while others have improved retention with the richer educational experience and greater academic community that a strong general education program can provide. Indeed, a few institutions report increased endowments in support of distinctive general education programs. Finally, some institutions show that the overall financial cost of a modified core approach to general education is ultimately less than that of a loose distribution system.

THE PROCESS OF REFORM

The process of reforming general education programs has varied across institutions. At some, the process was initiated by the administration, sometimes through an individual, sometimes through a committee; at others, it was initiated by the faculty, usually through a committee. The time-scale for reform also varied. In some cases the process has taken as long as seven years, with many steps and missteps along the way; in other cases the process has been much more abbreviated. Typically, when such reform has been faculty-directed and democratic, it has taken the greatest number of years to achieve. By contrast, changes initiated and controlled by administrators have occurred within a year's time.

In an unusually reflective document, Miami University (Ohio) published in The Miami Plan for Liberal Education (an internal publication), not only the content and rationale for their new general education program, but also a record of the trials and tribulations of getting it in place. In this report, which provides a roadmap for any institution embarking on the journey of general education change, we find that the process took seven years from the initial review to the final acceptance of the new general education program, called the *Miami Plan*. The process involved going to the faculty with a curriculum plan at several different times over the years and in several different ways, and included a rejection of an initial curriculum and a faculty-wide referendum on the curriculum after it passed the faculty senate; even the passage of the current program was upheld on a close vote. The general education initiators held focused discussion with faculty groups, visited individual departments, debated in the faculty senate, and often called for feedback in writing.

At Duke University, a Curriculum Review Committee, comprised of respected senior faculty, had weekly meetings conducted almost as seminars on general education for two hours each over an 18-month period. They assumed the curriculum was the heart of a university, reflecting faculty values and student ability, while preparing graduates for a rapidly and constantly changing society.

Thus they believed that any significant curricular change in general education needed a strong intellectual foundation because it affects the curriculum as a whole, including the majors. Curricular and pedagogical change required information and research about teaching as well as knowledge and skill bases, so the committee read national reports and internal self-study documents. The committee chose to be student-centered rather than faculty-centered in its approach. That is, the expectation of student accomplishments in the 21st-century world drove the curricular and pedagogical discussions and decisions. Several specific challenges were readily delineated: the accelerating rate of change; the explosion of knowledge and the corresponding compartmentalization and fragmentation of knowledge; and increasing globalization.

In general, processes that are faculty-driven, open and democratic, and focused on educational goals have had the greatest success and have enjoyed the greatest support. Such efforts have also taken the most work and required the most time. By and large, however, general education reform has had a rejuvenating effect on the institutions that have undertaken it, engaging the faculty who teach general education courses and increasing student interest in learning.

GENERAL EDUCATION AT SOUTHERN

HISTORY AND STRUCTURE

The essential general education curriculum at Southern, currently known as the All University Requirements (AURs), has been in place for over 30 years. Based upon the notion of a liberally educated student, it is a loose distribution system that Southern adopted in 1970 by replacing nearly all its specific course requirements with area requirements, a reform in accordance with the national movement to give students more freedom of choice. In 1983, minor revisions were made to this program, the most notable of which was the introduction of the L-course requirement, and a document was produced that guides the AURs to this day (see Appendix B: 1983 SCSU All-University Requirements Document).

Despite the lack of much change in the AURs, Southern has devoted a significant amount of committee work to general education review. Between 1987 and 1992, two different ad-hoc subcommittees appointed by the Undergraduate Curriculum and Instruction Committee (UCIC, the predecessor of UCF) reviewed the L-course requirement and recommended changes; all were approved by UCIC, while some were implemented and some rejected by the administration. From 1989 to 1994, a university-wide committee, appointed by the Academic Vice President, devised a human diversity requirement, which UCIC rejected and the administration accepted. But the Undergraduate Curriculum Committee (UCC) found the requirement too difficult to implement and it has since been ignored.

In 1992, UCIC created SURGER (an ad-hoc Subcommittee Undertaking the Review of General Education Requirements), which devised new principles guiding AURs to replace those in the 1983 document. These principles were passed by UCIC in December 1994, but subsequently ignored. After spawning the SCORE Program and LINKS⁵, SURGER was dissolved by UCIC before its final report recommending further changes was considered. In 1995, the Vice President of Academic Affairs created a Blue Ribbon Committee charged to complete a review of the AURs in one

⁵ See page 7 for a brief description of these programs

semester; UCIC rejected the committee's recommendations in 1996. So various committees over the past 15 years have made suggestions about the AURs in a series of failed initiatives, or initiatives that lacked follow through.

PROBLEMS WITH THE CURRENT GOALS OF GENERAL EDUCATION

The biggest problem with the current goals of Southern's program is that we have at least four locations with differing claims to the general education goals and objectives: the 1983 All-University Requirements document, the undergraduate catalog, the 1994 SURGER report, and the 1996 Strategic Plan. By default, the 1983 document seems to be the most commonly referred to (see Appendix B: 1983 SCSU All-University Requirements Document). Although approved by UCIC in 1983, the document (actually a 1970 document with minor revisions) lacks a coherent vision because each major section was written by the respective department; while this process is a nod in the direction of academic freedom, it minimizes the ability to create coherence. These are the requirements listed in the undergraduate catalog, which is the legally binding contract with students; however, no appropriate faculty body has ever approved the catalog's extensive general education rationale.

In 1994, another set of goals for Southern's general education requirements was approved by UCIC but never implemented. Along with a vision statement for general education, the SURGER report explicitly defined this set of goals:

- 1) Think critically, logically, analytically, and creatively in order to solve problems in a variety of ways, to dissect and evaluate arguments, and to make value judgments;
- 2) Read carefully, write clearly, listen attentively and speak coherently in order to communicate effectively about the discipline with other individuals and groups;
- 3) See self, others, and the world in a variety of ways through the discipline in order to question received truth, to recognize the limits of one's knowledge, to accept and deal with uncertainty, and to encourage the desire to improve community;
- 4) Engage some ideas relevant to the discipline through primary texts in order to encounter issues and debates first-hand;
- 5) Become conversant with history, theory, and practice in the discipline in order to understand what constitutes the discipline and how it differs from, and compares to, other disciplines.

As noted above, these goals were never implemented. In yet another conversation, unrelated to the previous documents, a new set of general education objectives appeared in the 1996 Strategic Plan (see Appendix C: 1996 Strategic Plan's General Education Objectives). As a consequence, this institution has a variety of official documents where a variety of goals are stated.

Despite the fact that these four documents (some more difficult to locate than others) lay differing claims to the general education goals and objectives, it seems clear that we want students to have a stake in being active citizens, who possess several important skills upon graduation: writing, reading, speaking, listening, critical thinking, collaborative learning, quantitative reasoning, creative thinking, and unscripted problem-solving. As for knowledge, we want students to have a broad base on which they can build a specialized knowledge and expertise, and perhaps the most important is knowledge of what they do not know. Blending skills and knowledge, students should be able to make connections within that broad base, and integrate new knowledge into it; they should be able to

analyze and synthesize what they know, and learn how to learn what they do not know. The big question is, are these goals achievable through the current structure of general education at Southern?

PROBLEMS WITH THE CURRENT STRUCTURE OF GENERAL EDUCATION

In an ideal setting, Southern's current general education system can work extremely well for students, faculty, and administration. Selecting their general education courses from a large menu gives students the flexibility of a wide range of courses, introducing them, at least theoretically, to the tenets of many different fields. Such a system also allows a large number of departments to introduce their disciplines to students and possibly obtain new majors, while it gives individual faculty members a lot of freedom in the courses they can offer. Finally, this system seems economically attractive because it requires little coordination and administration.

As previously indicated, however, the current literature on general education raises many concerns about the wisdom of the loose distribution system for general education. The primary concern is whether this system is the most effective for giving students a structured and viable liberal education. Frequently, students choose their general education courses based upon time and availability rather than upon an educational philosophy or a meaningful set of goals. Even with good advising in selecting their classes, students are lucky if they achieve a coherent general education experience from the current hodge-podge of courses. In addition, in contrast to the current practice at institutions with model general education programs, with few exceptions, Southern allows its students to complete their general education requirements with only 100 level courses, indicating a lack of depth in the program.

The loose distribution system at Southern appears to be based more on the needs of individual departments than on an across-the-school philosophy or mission statement. Perhaps the biggest criticism that could be leveled at the current Southern general education requirements is that they are not truly tied to the mission statement of the institution (and, perhaps in reverse, that the mission statement needs tying to the general education program).

ALTERNATIVES TO SOUTHERN'S AUR PROGRAM

There currently exist two programs at Southern that replace either all or some of the AURs: the Honors College and SCore. The Honors College is a challenging four-year program for exceptionally well-prepared students. It offers a series of interdisciplinary courses, designed to satisfy most of the AURs and offers a stimulating environment for the development of analytical, creative, and verbal skills. SCore, an experimental program currently discontinued, substituted four nine-credit, team-taught interdisciplinary courses for all the AURs. The SCore program attempted to provide an Honors College curriculum and pedagogy for self-selecting Southern students. Two additional programs - the LINKS program and *CSP298: First Year Student Seminar* - offer enhancements to students' experience of liberal education at Southern. Southern's LINKS program, in place since 1994, is designed to provide some level of coherence for first-semester freshmen fulfilling their AURs. Unlike the Honors College, where students must apply and be accepted for admission to the program, students in LINKS are self-selected and are taught in small learning communities linked to help students see how seemingly different subjects relate to each other in interesting ways. *CSP298: First Year Student Seminar* is a three-credit, team-taught course designed to assist students to "succeed academically and holistically during their first year in college."⁶ Introducing the nature of a university education, this course helps students develop essential academic skills and understand the

⁶ Southern Connecticut State University's 2001-02 Undergraduate Catalog.

learning process. In varying ways, the team teaching and interdisciplinary conversation in all these programs reflect the current practice of general education at the national level.

STUDENT AND FACULTY REACTION TO THE AURs

The results of a recent survey of alumni five years after graduation⁷ make it difficult to discern whether or not Southern graduates value our general education program. More than 50% of the respondents felt that Southern enhanced their education in areas that include oral and written communication, and analytical and logical thinking. But student comments on the 2001 NEASC survey reveal pockets of discontent:

- ☞ “Eliminate university requirements. Let us focus on our intended major”
- ☞ “Rework the foreign language requirements, evening the difference between the B.S. and B.A. programs”
- ☞ “Please rethink some of the All-University Requirements in the undergraduate B.A. program”
- ☞ “Some of the university requirements are not necessary. Students should be given more time to focus on their major rather than college requirements”
- ☞ “Why are there no questions about the university requirements? I believe that there is too much overlap with the university requirements. They also limit the amount of time that students can put into classes that will affect their career goals.”

Furthermore, Southern’s faculty does not find students particularly well served. According to the General Education Assessment Survey distributed in Fall 2000 by this committee, 65% of the respondents thought that our “students experience our general education program as fragmented,” with another 16% uncertain about that; 67% agreed or strongly agreed that our program is “primarily a list of courses that students must take,” rather than “a set of goals for student learning and development;” 61% thought our students “regard our general education requirements as an obstacle” to their major, while only 14% thought that our students view them as an asset. Furthermore, 65% also believe our program has little coordination, and only 21% agree that our program relies on or fosters faculty community (though it’s uncertain from the survey whether faculty think these last two situations are a good or bad state of affairs).

This committee realizes that Southern students are not being damaged by the current general education program. But we firmly believe that it fails to prepare most of our students adequately for academic excellence because it lacks intellectual coherence and needs to reconsider the skills and knowledge the 21st-century world requires of our graduates.

COSTS OF GENERAL EDUCATION

This committee can discuss costs only in a general sense because the allocation of monetary resources for general education programs is extremely difficult to determine; at most universities this allocation is the biggest expenditure for an academic program, but very few can determine the exact costs because the accounting process is so convoluted. Southern falls into this category.

⁷ “Class of ‘93: College, Employment and Employers’ Priorities: Results of the First Annual Survey of Alumni Five Years After Graduation” conducted by the CSU Office of Institution Research in collaboration with Southern’s Office of Institutional Research in Spring 1998.

Hypothetically speaking, a weak general education program incurs several immediate costs: students are not as well prepared for the responsibilities of citizenship as they might be; faculty encounter students unprepared for upper-level courses, whose quality may then suffer; the university does not attract as many students as it might with a distinctive program and does not retain as many students as it might with an effective program. A less readily apparent cost in Southern's case, a university which educates a significant part of the citizenry and workforce of Connecticut, is the failure to maximize the overall productivity of the state itself.

GENERAL EDUCATION REFORM AT OTHER INSTITUTIONS

There are indeed numerous ways to structure a strong and coherent general education program. A survey conducted in 2000 indicated that 57% of campuses were undergoing general education review and more than 1,000 college and universities are currently involved in AAC&U's initiative for general education reform.⁸ This committee consistently found that a key to success in reforming a general education program is not to imitate that of other universities but rather to design a program around an institution's own character and traditions, around the strengths and interests of its faculty, and of course around the needs of its students (Gaff, 1980).

Several institutions have been recognized for their significant efforts in general education reform, including Central Connecticut State University, Colgate University, Hampshire College, the Evergreen State College, King's College, Richland College, Miami University, Babson College, Mount Saint Mary's College, Rensselaer Polytechnic Institute, Eastern New Mexico University, Santa Clara University, University of Chicago, Wesleyan University, Millikin University, James Madison University, Northern Arizona University, Alverno College, Olivet College, Portland State University, San Jose State University, Wagner College, and Duke University.

REGIONAL INSTITUTIONS

In the past several years, two local universities have both undergone general education reform: Central Connecticut State University and the University of Connecticut. In fact, Central Connecticut State University, our sister school, has been nationally recognized for its unique First Year Experience program. This section describes the revised programs at these institutions.

CENTRAL CONNECTICUT STATE UNIVERSITY

Central Connecticut State University (CCSU) recently undertook the task of reviewing and revising its general education program, turning what was once a loose distribution system into a modified core system. This new program, instituted in the Fall of 1999, is distinguished from the loose distribution system by both the structure of the program and the requirement that all incoming students must take a First Year Experience (FYE) course. This program, which reduced the total required credits from 62 to 45, requires students to take a wide range of courses, designated as "study areas," that expands their knowledge of certain disciplines. These study areas are defined not by academic departments but by ways of knowing and thinking and methods of inquiry. Students are also expected to develop a number of skills (writing, computing, and foreign language study) through courses designated as "skill areas." In addition, the new program has a new university requirement designed to further develop personal and academic skills that enhance a student's understanding and appreciation for his/her college experience.

⁸ A. Leskes, Vice President for Education and Quality Initiatives, Association of American Colleges and Universities (oral communication, 4/02)

CCSU's First Year Experience requirement has gained national attention because it has a unique way of integrating the syllabus of a first-year experience orientation course into a "freshmen only" section of a traditional introductory-level course. Pilot sections in everything from freshman composition to nutrition have been offered successfully for the past several years. The FYE, required for all students with fewer than 15 credits, must be taken in a student's first semester. Those students who withdraw or fail to be enrolled in an FYE course in their first semester are required to take an FYE course in their second semester.

UNIVERSITY OF CONNECTICUT

Another Connecticut institution currently undergoing a radical revision to its general education requirements is the University of Connecticut (UConn), which proposed a new general education program in Fall 2000. The current general education program at UConn is a typical loose distribution system that involves students choosing courses to satisfy their requirements from eight different categories. One inherent problem of the loose distribution system, too much choice for students, is clear at UConn: four of these categories contain over 30 courses from which a student will pick only one.

The proposed program divides courses into two categories: competencies and content areas (corresponding to the current division between knowledge and skills). As shown in the following table, UConn will expect students to learn and develop five competencies in their general education program and complete each of these competencies only after they have either achieved the exit expectations or proven their proficiency with the skill. UConn has also proposed three content areas in its new general education program. The content areas will be structured to encourage interdisciplinary and multidisciplinary courses and to emphasize diversity and multicultural approaches to education and learning.

Competency Areas	Content Areas
Computer Technology	Cultural Memory, Diversity and Society
Quantitative Reasoning	Reason and Science
Writing	Imagination and Creativity
Second Language	
Information Literacy	

The proposed new program at UConn is a modified loose distribution system that has borrowed a great deal from the modified core system, but lacks several of its distinctive features. Essentially, students will still choose their courses from a large menu, but now the curriculum will have interdisciplinary learning and a focus on skills and content that the existing program lacks. In addition, the proposal includes guidelines for oversight and administration of the new system and for faculty development.

MODEL INSTITUTIONS

Model institutions, which tend to correspond with the current trends in general education discussed above, have moved away from loose distribution systems and toward modified core structures that provide students with a coherent and cohesive program of integrated learning experiences (see Structure section on page 3). The modified core system is not a simple formula, so there are probably as many variations of the modified core system of general education as there are institutions utilizing this structure. Nevertheless, all schools with modified core systems that we studied shared a number of commonalities. All have rethought their philosophies of general education, all have restructured their general education courses to be integrated with one another, all

include a senior year capstone course, and all demand greater faculty-student interaction; most of these general education programs include a freshman orientation course.

Four outstanding models - Portland State University, Duke University, Miami University and Olivet College - have all developed a distinctive version of the modified core system of general education. They are summarized below.

PORTLAND STATE UNIVERSITY

In 1994, Portland State University (PSU) adopted a new general education program that provides students with a coherent and cohesive program of integrated learning experiences. PSU's general education program has won many awards and is a nationally acclaimed leader in community-based learning. PSU's program begins with Freshman Inquiry, a year-long course introducing students to different modes of inquiry in an attempt to provide them with the tools to succeed in advanced studies and their majors. At the sophomore level, students choose three different courses, each of which leads into a thematically linked, interdisciplinary cluster of courses at the upper-division level. Finally, all students are required to complete a course that consists of teams of students from different majors working together to complete a project addressing a real problem in the Portland metropolitan community.

The goals of PSU's general education program are clear, concise, and directly linked to the mission statement of the university. The goals are only four in number, but manifold in content:

- 1. INQUIRY AND CRITICAL THINKING** - Students learn various modes of inquiry through interdisciplinary curricula – problem-posing, investigating, and conceptualizing – in order to become active, self-motivated, and empowered learners.
- 2. COMMUNICATION** - Students enhance their capacity to communicate in various ways – writing, graphics, numeracy, and other visual and oral means – to collaborate effectively with others in group work, and to be competent in appropriate communication technologies.
- 3. THE VARIETY OF HUMAN EXPERIENCE** - Students enhance their appreciation for and understanding of the rich complexity of the human experience through the study of differences in class, race, gender, ability, sexual orientation, and ethnic and cultural perspectives.
- 4. ETHICAL ISSUES AND SOCIAL RESPONSIBILITY** - Students expand their understanding of the impact and value of individuals and their choices on society, both intellectually and socially, through group projects and collaboration in learning communities.

DUKE UNIVERSITY

In the Fall of 2000, after three years of development and numerous revisions, Duke University adopted a new liberal arts curriculum called *Curriculum 2000*. The new program combines four interrelated features: Areas of Knowledge, Modes of Inquiry, Focused Inquiries, and Competencies. The structure of the program is shown in the matrix below.

General Education Requirements								
	Modes of Inquiry		Focused Inquiries			Competencies		
	Quantitative, Inductive and Deductive Reasoning	Interpretive and Aesthetic Approaches	Cross Cultural Inquiry	Science Technology and Society	Ethical Inquiry	Foreign Language	Writing	Research
Areas of Knowledge¹ (Min.)								
Arts & Literatures (3)								
Civilizations (3)								
Social Sciences (3)								
Natural Sciences and Mathematics (3) ²								
Other ³								
Minimum Exposures Required ⁴	2	2	2	2	2	1 ⁽⁵⁾ up to 2 more	3 ⁽⁶⁾	1 ⁽⁷⁾

In order to graduate, students are required to take three courses in each of the “Areas of Knowledge” dimension, as well as two courses designated as offering exposures to each of the “Modes of Inquiry,” and two courses offering exposures to each of the “Focused Inquiries.” In addition, all students must take at least one course in foreign language, three courses designated as an intensive opportunity to develop writing skills (one taken in the first year), and two courses designated as a research-intensive experience, one of which must be in the major.

Through their new general education program, Duke addresses the importance of balancing skills and knowledge; at the same time, they offer a creative solution to minimizing the turf wars commonly found in loose distribution systems: any department can offer a course to fulfill any cell in the matrix. Furthermore, a single course can have several intellectual goals and intended student learning outcomes and thus can simultaneously incorporate several curricular features. So, while courses fall within an Area of Knowledge, they can also provide educational experiences in up to two of the following: Modes of Inquiry, Focused Inquiries, or Competencies.

Duke claims that the interrelated structure of its *Curriculum 2000* has several unique features:

First, it explicitly recognizes that courses in many departments may offer exposures to similar competencies and/or substantive knowledge. Quantitative skills are not just taught in mathematics courses, nor is comparative knowledge about different cultures only taught in social science departments. Second, the structure encourages professors to develop courses that match their disciplinary interests in ways that also meet the priorities of the general education curriculum. Thus the modes of inquiry, focused inquiries, and competencies are not the bailiwicks of single departments. Third, the structure promotes flexibility in curricular design and implementation, guided by a set of basic principles and ongoing faculty oversight.⁹

MIAMI UNIVERSITY (OHIO)

The *Miami Plan for Liberal Education* was a faculty-driven initiative developed, debated, and ultimately approved by the school faculty. The *Miami Plan* was designed to support an underlying philosophy outlined in a statement of principles summarized in the purpose statement: “Liberal education involves thinking critically, understanding contexts, engaging with other learners, reflecting

⁹ <http://www.aas.duke.edu/admin/curriculum2000/report/intro.html>

and acting, habits that extend liberal learning through a lifetime to benefit both the individual and society.”

The *Miami Plan* provides a flexible “lead curriculum model” for its undergraduate programs that assumes approximately one-third of total credit hours being devoted to general education courses, and divides this coursework into three parts:

1. FOUNDATION COURSES

These courses introduce thinking critically and understanding contexts in diverse fields.

2. ADVANCED FOCUS ON LIBERAL LEARNING

This area consists of courses taken above the introductory level in a liberal education sequence, to provide in-depth study outside the major. This dimension of liberal education coursework includes opportunities through liberal learning for reflection, informed action, thoughtful decisions, personal moral commitment, ethical understanding, and civic participation.

3. A LIBERAL EDUCATION CAPSTONE EXPERIENCE

A senior-year capstone experience provides opportunities to promote integration of knowledge, to combine liberal learning and specialized knowledge toward the close of baccalaureate work, and to demonstrate intellectual accountability.

Another distinctive feature in the *Miami Plan* is the administration in place to support the general education program. This structure consists of a University Liberal Education Council, a University Director of Liberal Education, and an administrative assistant to the University Liberal Education Council to support the work of the Council and the director.

OLIVET COLLEGE

Olivet College, a small, private institution in Michigan, recently revised its educational philosophy and all of its programs. The new program, referred to as the *Olivet Plan*, was built around an educational philosophy that provides “an education for individual and social responsibility.”¹⁰ Of special interest to this committee is that the school revised its sequence of general education courses to encompass its educational philosophy. This revised program was designed to “provide common learning and shared experiences for all students. These courses enable students to build their skills across the full range of important educational outcomes.”¹¹

The primary components of the *Olivet Plan* include:

1. PORTFOLIO PROGRAM

Beginning in the first year, and continuing until the student’s portfolio is completed at graduation, every student enrolls in a required one-semester-hour Portfolio Seminar conducted by a faculty mentor.

¹⁰ <http://www.olivet.edu>

¹¹ <http://www.olivet.edu>

2. FIRST YEAR EXPERIENCE (FYE)

The FYE course is a yearlong, one-semester-hour-per-semester program closely linked with the portfolio seminar. A significant part of the FYE course involves reflection on the experience of community involvement.

3. GENERAL EDUCATION

The general education plan consists of 11 core courses that link skills, orientations, learning outcomes, and competencies with Olivet's vision of education for individual and social responsibility.

4. SERVICE LEARNING

At least once during their undergraduate experience, students are required to complete a three-semester-hour service-learning course offered by an academic department. Each service-learning course requires students to spend a minimum of 40 hours serving the needs of the community.

5. LEARNING COMMUNITIES

Course-based learning communities comprise cohorts of students who enroll concurrently in two or three different but thematically linked courses. Work in the two or three courses is supplemented by enrichment activities that extend beyond the classroom into the broader community.

6. SENIOR YEAR EXPERIENCE (SYE)

The SYE, a general education requirement rooted in the major, includes a clear demonstration of the link between general education and the major course of study, preparation for the transition from college to life after college, and a clear articulation of how the students explored the issue of individual and social responsibility during their entire college experience.

The FYE and the learning communities are key to the general education experience at Olivet and are, perhaps, the two most important components for creating a unified community and school vision. To support this unity, Olivet sets aside every Wednesday during the academic year for an ongoing lecture and symposium series to link the entire college as a learning community.

CHALLENGES FACING GENERAL EDUCATION REFORM AT SOUTHERN

Any attempt to change general education at Southern will surely engender the conflicts with academic freedom encountered at other institutions. The university can support both general education goals and departmental autonomy only when a culture of citizenship in our university community emerges. It seems that Southern has not always known how to support both, perhaps because of its history of academic freedom; that is, general education development here has focused much more on departmental autonomy and much less on goals developed university-wide. We need a unified community to have a strong and effective general education program. Such an approach entails taking certain risks. It also provides significant opportunities. In addition, there are challenges imposed by virtue of the fact that Southern is a large state university with a diverse student population. Reforms that might work well at a small liberal arts college with a homogeneous student body might not be workable or even desirable at Southern.

RISKS

The implementation of a revised general education program at Southern will present several foreseeable risks and challenges to the institution's academic departments: loss of time, loss of autonomy and loss of resources. First, this initiative is almost entirely faculty driven and to develop and implement it will take a significant amount of time, which is unfortunately a precious commodity that is in great demand. It will mean redirecting teaching and research efforts into service. Changes to the general education program would also potentially involve reorganization of some or all of the general education classes. Second, given the current trends in general education, a new general education program may well emphasize interdisciplinary course work. Interdisciplinary programs have historically tended to blur turf boundaries and could result in less departmental autonomy. Third, reorganization of the current AURs entails potential loss of resources that are associated with the department's participation in general education including department faculty lines and the opportunities to recruit students to the major. This could be of particular concern to departments that have small degree programs and rely on the general education courses to maintain a higher student FTE.

OPPORTUNITIES

On the other hand, a strong general education program can provide significant benefits to the students and faculty alike. The investment of faculty time in developing such a program should result, in the long run, with a curriculum that is more vital, effective, and exciting to students and faculty. The courses in the new core curriculum at Providence College, for example, have become some of the most popular courses offered at that institution (Carolyn Fluehr-Lobbin, personal communication). Students might become more excited about education and better prepared for advanced work. In general, students and faculty could end up with a program that is more valued than the current one, a program perhaps that is more on a level with the major. Furthermore, a program driven by goals and objectives (as opposed to disciplinary knowledge) allows any department to propose courses for the general education curriculum. Departments that currently offer general education courses could if they wished, expand their offerings. For example, if an understanding of and appreciation for human diversity were a general education goal, course offerings could be fielded from history, women's studies, anthropology, sociology, journalism, philosophy or other departments. On a more mercenary note, some evidence suggests that a strong general education program can also increase admissions and improve retention. According to Richard Guarasci, the Provost at Wagner College, "good general education practice will increase net tuition revenue." Guarasci and the faculty at Wagner used the strategy of creating a distinctive, or signature, general education program to reverse the institution's falling enrollments and dwindling resources. A similar strategy for revitalization has been employed by Portland State University. The potential benefit to all departments of increased enrollment and improved retention is obvious.

TRANSFER STUDENTS

Among the challenges to meaningful general education reform engendered by Southern's status as a large state university, is the problem of transfer students who enter the university as juniors or as students who have satisfied portions of a general education program at a different university. Portland State University, like Southern, has a high number of transfer students, and addresses the challenge by offering two different courses explicitly designed for transfer students entitled *Transfer Transitions 210* and *Transfer Transitions 310*. *Transfer Transitions 210* is designed for students who transfer with up to 90 credits. This course covers basic skills and addresses PSU's general education goals for students who have had some college course work. It is designed to cover in one term what PSU's Freshman Inquiry course covers in one academic year and is especially recommended for those who need to strengthen communication, writing, and technology skills and/or for students who want to become more connected to the campus and its resources. *Transfer Transitions 310* is

recommended for transfer students with 90 or more credit hours, especially for those who need to strengthen their technical, communication, and critical thinking skills. Students who take *Transfer Transitions 310* are also encouraged to take the Sophomore Inquiry course, which prepares them for upper division general education courses at PSU.

VARIABILITY IN STUDENT PREPARATION

Another challenge is the wide range of abilities in Southern students. The findings of the ad-hoc Remediation Workgroup of UCF make it clear that entering freshmen tend to fit one of two profiles (with many students somewhere between these two categories). The first profile is the student who can complete their Bachelor's degree in four years without remediation. The second profile is the student who will need an additional year of remedial coursework and will likely take at least five years. Consequently, it seems clear, that the expectations that a general education holds for student performance must be flexible. At the very least, however, redesign of the general education program should entail some serious consideration on the part of faculty and administration on what we should be able to expect from students admitted to Southern and to what extent we wish to be involved in remediation.

CONCLUSION

Despite the risks and faculty concerns, and after examining the national trends in general education reform, this committee has come to the conclusion that Southern should move forward to develop a superior general education program in an open and democratic fashion. It is within our reach to create a more vital and more effective program. We owe it to our students and to ourselves. In the long run, the greatest risk might be the failure of our general education program to achieve its full potential.

COMMITTEE RECOMMENDATION

This committee, after fulfilling its charge of reviewing general education at the national level and at Southern, recommends that the next step in the reform process is to form a General Education Task Force. The task force shall be charged with first proposing a set of goals, objectives and outcomes for a coherent general education program that will be approved and accepted for a UCF vote and faculty referendum. Once accepted, the task force shall then devise and implement a self-assessing, coherent general education program that meets the approved goals, objectives and outcomes, which will again go to a UCF vote and faculty referendum.

Membership of the General Education Task Force shall consist of 11 voting faculty members, one non-voting member of the administration, and 3 non-voting students members. The task force, in addition to proposing a coherent general education program based on current thinking and practices, will be charged with holding university-wide forums to discuss general education, facilitating discussions and meetings with all undergraduate departments, dispensing general education materials via a dedicated web site, reporting regularly to UCF, and attending conferences and workshops related to general education.

FINAL COMMENTS

This committee was charged with the daunting task of reviewing general education at the national level and at Southern. To get up to speed with all of the reform happening at the national level was indeed a very time consuming process. At times we were excited by the changes

recommended by the national movement, mindful of Southern's previous attempts at reform, overwhelmed by the task at hand and the amount of material to read, concerned that this would be another failed initiative, impressed with all of the creative ways that general education was reformed at various institutions, fearful that turf wars will halt the reform process dead in its tracks, focused by NEASC's comment that our general education program is inadequate, and confident that Southern can have a first-rate general education program.

Despite this range of feelings, we are convinced that the faculty at Southern are ultimately interested in developing a general education program that focuses on addressing the needs of our students to be successful citizens in the 21st century.

APPENDIX A: PROPOSED GENERAL EDUCATION CHARTER

CHARTER FOR UWIC GENERAL EDUCATION TASK FORCE

- I. Name: UWIC General Education Task Force
- II. Goal: To propose for UCF vote and Faculty Referendum, a coherent general education program informed by current thinking and practice.
- III. Institutional Goals
 - A. Realize the SCSU Mission Statement by ensuring that SCSU's General Education program is preeminent
 - B. Meet directives of NEASC that SCSU update its general education program
 - C. Meet the goals of the Strategic Plan
- IV. Process
 - A. Review all pertinent material on general education goals & objectives
 1. SCSU 1983 document
 2. SURGER document
 3. Blue Ribbon Committee report
 4. Report from UWIC subcommittee on General Education
 5. Other SCSU documents (undergrad catalog, assessment documents, etc.)
 6. NEASC report
 7. Professional accrediting agencies' reports (e.g. NCATE, CSAB, AACN)
 - B. Identify goals, objectives and outcomes for a general education program
 - C. Propose those goals, objectives and outcomes for a UCF vote and faculty referendum
 - D. Devise and implement a self-assessing general education program that meets the goals, objectives and outcomes approved by UCF vote and faculty referendum
- V. Committee Activities
 - A. Hold university-wide forums to discuss general education
 - B. Facilitate discussions and meetings with Academic Affairs, Dean of Arts and Sciences, and all undergraduate departments
 - C. Dispense general education materials via a dedicated web site
 - D. Report regularly to UCF
 - E. Hold intensive meetings during a summer session
 - F. Attend conferences and workshops related to general education
- VI. Activities Requiring Resources
 - A. Meeting intensively beyond normal committee hours and assignments.
 - B. Purchasing publications on general education
 - C. Traveling to conferences and institutes on general education
 - D. Bringing in consultants from institutions with model general education programs
 - E. Conducting faculty referendum (photocopying, distribution, etc.)
 - F. Assessing current general education practices
- VII. Areas Affected by Proposal
 - A. Academic
 1. All undergraduate students
 2. All undergraduate departments and programs
 3. UCF
 4. Faculty Senate
 - B. Administrative
 1. Academic Affairs Office
 2. Academic Advisement
 3. Deans of academic schools offering undergraduate courses

VIII. Members

- A. One non-voting member from the administration appointed by the Academic Vice President
- B. Three non-voting student members selected by UCF chair from nominees At Large
- C. Eleven voting members from the faculty elected by UCF
 - 1. The faculty members of the committee shall be chosen by the following process:
 - a. The UCF chair shall select a slate of candidates from the faculty at large, including self-nominees.
 - b. The UCF Steering Committee shall review and approve the slate.
 - c. The full slate shall be presented for approval by the UCF members.
 - 2. The UCF chair and Steering Committee shall take the following factors into account in order to form a well-balanced slate:
 - a. Department representation
 - b. General education faculty
 - c. Demonstrated interest in improving general education
 - d. Continuity from previous general education committees
 - e. Curricular committee experience
 - f. Junior and Senior faculty
 - g. School representation

Sponsor signature _____
J. Philip Smith, VP for Academic Affairs

Sponsor signature _____
DonnaJean Fredeen, Dean of Arts & Sciences

Sponsor signature _____
James Tait, Chairperson of UCF

APPENDIX B: 1983 SCSU ALL-UNIVERSITY REQUIREMENTS DOCUMENT

**THE ALL-UNIVERSITY CURRICULUM
SOUTHERN CONNECTICUT STATE UNIVERSITY**

Introduction and Background

At the beginning of American higher education in 1640 students of Harvard College took ten courses over a period of three years, all taught by the President of the college. These courses were exclusively classical, covering languages, theology, philosophy and ancient literature. [Carnegie, Mission of the College Curriculum, p. 1] This course of study was neither as esoteric nor elitist as it may seem to us today, for it ideally suited graduates to the professions of the day: law, the clergy and politics. This state of affairs persisted essentially unchanged until the latter part of the nineteenth century when studies for other professions, notably agriculture and science were gradually added to the curriculum for some students.

"General education," which once constituted 100 percent of the curriculum, now claims one-third of the student's attention with one-third devoted to "major requirements" and one-third to "electives." [ibid, p. 7]

In spite of the attention and struggle that curriculum receives from college faculty, it is not the most important aspect of the student's education. The most important part is the quality of the faculty: "that the teachers should be alive with living thoughts." [Whitehead; The Aim of Education, 1929] However the curriculum is the major statement any institution of higher education makes about itself, about what it thinks is important in its teaching service to society. [Carnegie, op. cit., p. 18]

In 1970 Southern Connecticut State College adopted a major liberalization of its curriculum, replacing nearly all specific course requirements with area requirements, reducing the number of credits required for graduation and reducing the number of courses required in the all-college category. Other colleges underwent even greater liberalization in response to student demands and faculty attitudes, but most are now adding more structure to their requirements. ["Change on Campus", Wall Street Journal, Mar. 9, 81, p. 18] This university now finds itself very near to the mainstream in regard to its curriculum. This committee found no overwhelming demand for comprehensive curricular change from either faculty or students. In wide ranging discussion with faculty who teach the all-university requirements, several problems were found, but most of these can be addressed by "fine tuning" the present curriculum. A word of caution is in order at this point, for what is a minor change in terms of the overall pattern may prove to be a substantial change for a few departments or for a minority of especially ill-prepared students.

I. Goals of the Curriculum

"Since it is impossible for a college to expose its students to all available knowledge, the best basic objective of the curriculum must be to provide students with skills for lifelong learning. These

will include the ability to analyze written and spoken ideas, to use computational tools properly, to integrate information gathered from more than one source to produce new conclusions, to test the validity of conclusions, and to use knowledge (facts and techniques) to solve problems." [Carnegie Report, op. cit, p 120]

The only thing that we can say about the future with any degree of certainty is that it will be much different from today, and that changes will take place with ever increasing rapidity. In designing a curriculum we must make our best guesses about the future realizing that these are only guesses. The key item that must be instilled in our students is adaptability, for this alone prepares them to cope with an uncertain future. Many of the traditional tenets of a liberal education have been successful in producing adaptable, educated citizens.

While many of our incoming freshmen are certain about their career choices and are confident that they know what courses are needed to prepare them for this career, this is pure illusion on their part. Most careers will change significantly during the four years that these students are in college, many of the students will change their courses of study, and further career changes will occur after graduation. Consequently, the liberal arts portion of the student's education may ultimately prove to be the most important and valuable part of the curriculum. One of the primary tasks of concerned faculty is to convince students of these conclusions so that they view these requirements in proper perspective and give them the attention and study they deserve.

II. Communication Skills

One of the most immediately striking characteristics of an educated person is the facility that is presented in written and spoken English. This facility is critical for success in university level work in all areas of study, but in the graduate's lifetime it will be even more important in determining the prospects for career advancement.

While it may be necessary to review grammar in these courses, the primary emphasis should be on the clear expression of complex ideas and the ability to organize complicated arguments. Students who are seriously deficient in grammar will be required to take remedial work for which no university credit will be given.

These skills require repeated practice for mastery; consequently, all faculty of the university must work with students to develop their communication ability by advising them to register for appropriate courses and by giving them written and spoken assignments whenever possible. The courses which are required in this area must be viewed as a foundation upon which all other university courses will build.

In 1981 the faculty voted to add to the curriculum a requirement for specific courses (among the all university requirements, electives, or major courses) which require extensive writing for all students starting with the incoming class of Fall Semester, 1982. The "L-Course Requirement" will be continued in this proposed curriculum, and the L-courses will continue to have English 100 as a prerequisite.

Requirements in Communication Skills

A. English Composition (3-6 credits). Courses which fulfill this requirement must stress the correct use of standard written English. The importance of organization, development and style in the expression of complex ideas will be covered. The range of credits in the requirement can be explained in the following way. The graduation requirement will be English 101, but a considerable number of students will be placed in English 100 on the basis of the placement exam.

B. Speech Communication (3 credits). Courses which fulfill this requirement must stress the use of standard spoken English to express, move and persuade. Students must gather facts, organize them into a coherent oral presentation and deliver this before a large or small group.

The Humanities

A. Literature

The courses which satisfy this requirement should introduce the student to a body of literary works whose intellectual and aesthetic influence has helped to shape the cultures of the world. Because literature influences and defines the nature of language as an instrument of thought, these courses also contribute to the students' understanding of linguistic constructs and to the refinement of their own writing styles. The courses offer students the opportunity to read "the best that has been thought and said" in their own and other ages. This cultural and historical value of literature is especially important for our students, many of whom come to us with little historical perspective or cultural sensibility.

The analysis of literature is an analysis both of language in its power to encompass reality and of the forms and structures of meaning which examine and define the elements of human experience. Good literature brings students to examine the conditions of their lives, the significance of their actions, and the assumptions which underlie their values. It develops a cosmic perspective and aesthetic sensitivity which strengthens the individual to meet the vicissitudes of daily existence and encourages him to act humanely in the often dehumanizing circumstances of our world.

B. The Fine Arts

"Traditionally the arts have been included in the curriculum on the grounds that they contribute to the esthetics of our environment, that they have recreational value to students and graduates and they provide a means for a creative experience. Recent studies indicate that they play a more fundamental role in knowledge. Throughout history, significant content has been expressed in images in two and three dimensions, construction in sound, and movement of the body.

In short, the arts provide students ways of perceiving their environment which are quite different from those which are gained by reading books, doing experiments, solving problems, or writing essays and theses." [Carnegie, op. cit., p. 112] In addition, the students of this generation are particularly deficient in an understanding of the cultural development of world civilization and this "sense of history" can be fostered in courses in the fine arts in ways that supplement formal courses in the History Department.

C. Philosophy

The ultimate aim of the all-university requirements is to instill in our students an appreciation and respect for ideas so that they will be able and eager to continue examining and learning new ideas after graduation. Most of these ideas which the students learn are presented in the various academic disciplines. A formal investigation into the relationship between ideas, their moral force, and the assumptions which underlie many "truths" is perhaps even more important for students in an institution which presumes a religious belief.

There are certain values such as "honesty" which are absolutely essential to the progress of human endeavors such as science, law, business and politics. These values are best investigated in a homogeneous group which includes students interested in all of these endeavors, for then the universality of these values can best be demonstrated.

D. History of World Civilization

The purpose of this requirement is to assure that our graduates are conversant with "(a) developments that shaped some significant portion of history irreversibly; (b) issues that were controversial in their time and that people struggled over; and (c) issues that are not directly related to modern policy questions." [The Harvard Curriculum, p. 47]

While courses which concentrate on important but brief periods such as the French Revolution may be appropriate for some students, this degree of specialization will not be allowed in fulfillment of this requirement. The History Department is currently redesigning many of its courses covering countries and areas so that students will be exposed to the development of a significant region of the world over a period of several centuries. In this way students will see that actions taken today will have consequences which extend far into the future.

Summary of Requirements in the Humanities

A. Literature (3 credits). Courses which fulfill this requirement will require students to read and write about important works of literature in English or in translation from the original language.

B. The Fine Arts (3 credits). This requirement may be fulfilled by choosing from among history of the theatre, art, music, or the dance.

While skills and performance courses may be very beneficial for many students, they do not address the aims of this requirement and will not be allowed.

C. Philosophy (3 credits). The courses which fulfill this requirement will serve a multiple purpose: to introduce students to important traditions of thought, to make them aware of the intricacies of argument and to bring them to grips with particular questions of choice and value. [The Harvard Curriculum, p. 49]

D. World History (3 credits). The courses which fulfill this requirement may either be a survey of western civilization or a course which covers several centuries of the development and interactions of a nation or region. These courses should impart new knowledge, explain the historian's craft and promote analytical and interpretive skills on the part of the students.

IV. The Social Sciences

"The object of this requirement is to familiarize students with some of the central approaches of the social sciences and to do so in a way that gives students a sense of how these approaches can enhance their understanding of human behavior in the context of contemporary society. The courses offered to meet this requirement will provide formal coherent theories and analytical approaches that are tested or illuminated by empirical data." [The Harvard Curriculum, p. 49]

The social sciences in the all college requirements are divided into two groups. The differences between these two groups are important enough so that students will be required to choose a course from each group.

A. Nations and the World

The requirement that students chooses a course from this group is meant to ensure that our graduates are familiar with the global aspects of social science, in particular, those generalizations and laws which have been developed to guarantee the continued existence of civilization on this planet. The subjects studied in this group differ from those in the next group in that breaching the laws presented here can lead to disastrous consequences such as war, famine or economic depression.

B. Self and Society

In general, the theories which have been proposed in this group of subjects deal with smaller groups of people and as such are less well developed and less rigid than those in the previous group. In part this is because statistical fluctuations which "average out" when dealing with societies and nations have primary importance in individuals and small groups. This difficulty in arriving at hard and fast rules in this study is not meant to denigrate it nor diminish its importance in the education of students. Most of the interactions we have with fellow humans offer on an individual or small group basis and

any study which can give guidance and increase our sensitivity in these interactions will have lifelong value.

Requirements in the Social Sciences

A. Nations and the World (3 credits). A course in economics, geography, or political science. The courses which fulfill this requirement must cover the methods, findings, and current areas of study important to one of these disciplines.

B. Self and Society (3 credits). A course in anthropology, sociology, or psychology. Courses which fulfill this requirement must cover the best current theories which explain and illuminate the behavior of individuals and their interactions in groups.

V. The Natural Sciences

For the purposes of the all university requirements, the natural sciences have also been divided into two categories: those that are primarily descriptive and those that are primarily analytical. The purpose of these requirements is to help students to: (a) organize their observations of the natural world, (b) dispel superstition and recognize pseudoscience, (c) develop their abstract analytical reasoning ability, (d) understand the intricacies and interdependence of forms of life, and (e) appreciate the historical and cultural aspects of science. The study of the natural sciences is primarily the study of a method which looks beyond the authority of the written word to experimentation and observation as a source of truth.

Requirements in the Natural Sciences

A. Biology or Earth Science Laboratory Course (3 credits). Courses which fulfill this requirement will cover critical observations appropriate to the discipline, ordering of such observations into rational classificatory schemes, and developing and testing theories which seek to explain processes in operational terms. Implications of past and current discoveries and concepts will be examined.

B. Chemistry or Physics Course with a Lab Experience (3 credits). Courses which fulfill this requirement will require that students investigate some of the more abstract aspects of the discipline: topics such as energy, the mole and molecular theory. Students should be taught not only what scientists believe, but also the evidence which supports these beliefs.

The ideal laboratory experience is one in which students learn techniques of observation and measurement by individual manipulation of apparatus. Funding and staffing limitations have led departments to institute courses in which the laboratory is replaced by large group experimentation, videotaped experiments, or optional laboratory work on a walk-in basis. While such efforts are innovative, they are far from ideal. The current situation at this university requires, however, that they be allowed as laboratory courses for the purpose of this requirement.

VI. Mathematics

Mathematical literacy is vital to advanced study and to lifelong learning. Mathematics has wide-ranging application in many fields of study. However, this requirement is important even if a student enters a field which makes little direct use of mathematics, The informed citizen must be aware of the role of mathematics in the natural and social sciences and must be an intelligent consumer of quantitative information.

The courses which have been designed by the Mathematics Department to satisfy this requirement have as their primary goals the development of (a) analytic skills, (b) problem solving skills, (c) deductive reasoning ability, and (d) the ability to reason abstractly and to generalize. Secondary, but nonetheless important, goals are to develop the ability to (a) use mathematical algorithms and manipulate formulas, (b) apply mathematics to other areas, and (c) appreciate mathematics in its historical and cultural context.

Requirement in Mathematics

Mathematics (3 credits). All students must complete at least one approved course which is at a level more rigorous than arithmetic and elementary algebra.

VII. American Political Foundations

This requirement is directed toward developing in the student a comprehension of the evolution and constant testing of free political institutions in America and of the tensions throughout our history between majority rule and minority rights. By an analysis of the forces that created the American republic, molded our Constitution, stimulated territorial growth, facilitated the admixture of peoples, fostered urbanization and industrialization, and promoted social justice the student will be prepared to participate in the democratic process.

Requirement in American Political Foundations

Students will fulfill this requirement by completing a three-credit course in American political foundations from a list of courses designated by the Political Science or History Department.

VIII. Foreign Language

The foreign language requirement is being strengthened for students working toward a Bachelor of Science Degree. There are three fundamental reasons for this. First, students should be prepared to meet the needs of the community that the university is committed to serve. English is not understood by many of our citizens; moreover, many of the industrial firms of Connecticut are under European ownership and need employees who speak teaching foreign languages has improved and options available to students have increased. For instance, students may concentrate on spoken French or Spanish or

reading German. It is now possible to attain a useful and valuable skill at the second level of foreign language study. A level-two proficiency will better prepare degree candidates with the mental precision and cultural awareness needed in a competitive, shrinking world. Our graduates will have an edge over other applicants when seeking jobs in a country with large ethnic populations and in a state with many European businesses. Third, this increase in the graduation requirement for Bachelor of Science students will correspond more realistically to our students' backgrounds. About 85 percent of our undergraduates have had two or more years of foreign language study in high school and should as freshmen be able to waive one or more of these courses by examination.

Foreign Language Requirement for all B.S. degrees

Students shall demonstrate proficiency at the second level of foreign language by passing an appropriately designed examination or by passing a level-two course.

Foreign Language Requirement for all B.A. degrees

Students shall demonstrate proficiency at the fourth level of foreign language by passing an appropriately designed examination or by passing a level-four course.

IX. Physical Education and Recreation

There are two fundamental reasons for requiring activities in physical education. First, students should be made aware of the wide range of safe recreational activities of which they may avail themselves in their leisure time throughout their lives. Second, strenuous physical exercise is important for good health. These courses should provide examples of means of obtaining this exercise which are pleasurable rather than tedious.

Requirement in Physical Education and Recreation

Students will be required to complete two courses (at least 0.5 credits each) from a list of approved courses in physical education activities. The courses which fulfill this requirement should stress team and individual sports, coordination, conditioning, exercise, and lifelong recreational activities. Recreation 105 may be chosen to fulfill one of these course requirements.

X. Health Education

Personal well-being is essential to meeting the demand of academic and professional responsibilities and to effective daily living. A truly educated person is one who can apply knowledge to the task of more fully knowing him/herself, and can place the proper emphasis on personal growth and development. In this context, health promotional activities are the foundation for achieving and maintaining well-being. Health education contributes to health promotion by enabling the individual to: a) increase competency for making decisions

about personal, health-related behaviors, and b) increase skills and inclinations required for engaging in activities and behaviors conducive to well-being.

Certain health-behavior issues are especially timely for college students. However, the emphasis of this requirement is placed on behavioral and environmental adaptations which are intended to bring about lifelong improvements in health. This is done through a scientific approach which examines current research findings, and is presented within a framework of personal goals, needs, preferences and choices.

Requirement in Health Education

Health Education I (1 credit). Students will successfully complete the course HSC 100.¹² This course requires students to examine personal health values and behaviors along with scientifically based information on risk factors and health promotional activities.

XI. Graduation Requirements

	Bachelor of Arts	Bachelor of Science
All College Requirements	38-47 (1)	38-47 (1)
Courses Specified by the Major Department (2)	42	63
Level IV Foreign Language	6	0
Free Electives (3)	27-36 (4)	12-21 (4,5)
Total	122	122

- (1) Students who waive both English 100 and the Level II foreign language courses shall have 38 credits required. Students whose level of preparation requires that they take these courses shall have credits required.
- (2) The number specified in this column includes major courses, cognate courses and professional requirements. This is the maximum that may be required within the 122 credit limit. Professional or accrediting agencies may stipulate that more than 63 credits be required. This will mean that students will be required to take more than 122 credits for graduation, but the free electives may not be decreased.
- (3) The free electives are intended to be broadening and enriching and as such at least 12 credits must be outside the major department.

¹² Grading for HSC 100 will be based on the traditional A - F scale. The course may be waived by examination or successful completion of HSC 201 - Personal Health (3 credits), or (for programs requiring it) the completion of HSC 203.

- (4) The larger number applies to students who waive the English 100 and the Level II foreign language courses. The smaller number applies to students who must take these courses.
- (5) B.S. degree programs in professional areas provide for a minimum of 21 hours of free electives, while non-certifying programs provide a minimum of 12 hours of free electives.

THE FRESHMAN YEAR

All students should begin work on the fundamental college-level skills in the freshman year. These are skills which will be needed in upper-level courses in many departments. The following plan is recommended for the average student. Those who are deficient must be placed in special programs.

*English Composition (ENG 100 or 101)	(3 cr)
?Mathematics.....	(3 cr)
Social Science	(3 cr)
Natural Science	(3 cr)
World (non U.s.) History	(3 cr)
Health Education	(1 cr)

All students should take the foreign language proficiency test and begin study in this area if needed, otherwise they should elect a fine arts history course..... (3 cr)

Courses specified by the major department or advisor..... ..(12 cr)

Total (31 cr)

? These two areas are considered to have high priority because of their importance in the success of all other university-level courses and because their completion early in the university education will open up a wider range of choices in free electives and career possibilities.

A RECOMMENDATION ON READING PROFICIENCY

The university should provide a means of testing incoming students in the area of reading (both comprehension and speed) in addition to the current testing in mathematics and composition. Students who will probably need remedial work in any of these three areas should not be admitted to the university unless there is adequate provision for meeting these needs. It is recommended that students who are weak in all three areas not be admitted to the university. The university has an obligation to provide sufficient sections of remedial courses so that every deficient student may begin necessary remedial work in the freshman year.

UPPER AND LOWER DIVISION REQUIREMENTS

The Subcommittee on All University Requirements has observed that it is possible for students to graduate from the university with the majority of their courses at the introductory or 100 level. A graduate could have a transcript which shows 300 and 400 level courses only in the major. The U.C.I.C. investigated several ways in which this problem could be alleviated and students either could be required or encouraged to study subjects in a depth greater than an introductory course. The problem with the implementation of any of these plans is that there is no clear definition of exactly what the various course numbers mean in terms of level, depth, or prerequisites. The following recommendation is therefore offered.

The Undergraduate Curriculum Committee should develop a set of criteria and guidelines on the meaning of course numbers. These criteria should be used by the committee in its deliberations when new courses are presented for approval and in its ongoing review of departmental offerings. When these criteria are developed they should be transmitted to the University Curriculum and Instruction Committee which will then undertake a study of upper and lower division graduation requirements.

APPENDIX C: 1996 STRATEGIC PLAN'S GENERAL EDUCATION OBJECTIVES

- 1) Prepare students who are able to speak and listen well.
- 2) Prepare students who are able to work effectively in a group.
- 3) Encourage students to develop their leadership skills.
- 4) Influence students to develop a sense of responsibility to self for their own intellectual growth.
- 5) Influence students to develop a sense of responsibility for their community and their nation.
- 6) Influence students to develop a sense of responsibility to this planet by protecting their environment.
- 7) Influence students to develop a sense of responsibility to the people of this planet by working for international peace and justice.
- 8) Influence students to develop a willingness for intellectual exploration and the risk this involves.
- 9) Influence students to develop an increased awareness, sensitivity, and appreciation for aesthetic experience and for nature.
- 10) Impart useful knowledge, skills and understandings to students to develop the ability to think critically and analytically. This includes a willingness to provide and demand reasons and supporting evidence to back up statements.
- 11) Impart useful knowledge, skills and understandings to students to develop the ability and desire to continue reading, pondering, and acting upon issues of professional and societal concern.
- 12) Impart useful knowledge, skills and understandings to students to develop the ability to communicate both in writing and speaking.
- 13) Impart useful knowledge, skills and understandings to students to develop the ability to communicate using modern communication technology.
- 14) Impart useful knowledge, skills and understandings to students to develop a sense of the interconnectedness of ideas and knowledge, such that living as liberally educated human beings is possible.
- 15) Impart useful knowledge, skills and understandings to students to develop an awareness of the student's place in this country and its history, language and values – and at the same time an appreciation for and understanding of others' history language and values. This includes the non-western world, as well as gender, ethnic and racial differences in our own society.

APPENDIX D: BIBLIOGRAPHY¹³

Association of American Colleges. 1985 (2nd ed. 1990). Integrity in the college curriculum: A report to the academic community. Washington, DC.

This report critiques the supermarket approach found in undergraduate curricula, calls on “the faculty as a whole to accept responsibility for the curriculum as a whole,” and recommends a minimum required curriculum for all students.

Association of American Colleges and Universities. 1995. Liberal learning and the arts of connection for the new academy. Washington, DC.

The second in a series of reports written by a National Panel of scholars convened through AAC&U's American Commitments initiative, this report explores goals for liberal learning in a diverse democracy and argues that the liberal arts of the future will include ways of relating and learning across difference. Written for faculty members and curriculum committees, this report should be used in connection with American pluralism and the college curriculum.

Astin, A. S. 1993. What matters in college? San Francisco: Jossey-Bass.

Astin, Alexander W. 1985. Involvement: The cornerstone of excellence. Change 17 (4): 35-39.

Excellence often is defined in terms of resources (physical plant, library volumes, endowment) or reputation (faculty research, student test scores, graduates earning advanced degrees). Excellence in education, however, ought to mean developing the talent of students, indicated by the “value added” to the student by the college. Research shows that student involvement in the academic enterprise—in all of its forms—is the most powerful educational force.

Carnegie Foundation for the Advancement of Teaching. 1977. Missions of the College Curriculum: A Contemporary Review with Suggestions. San Francisco: Jossey-Bass.

Carnegie Foundation for the Advancement of Teaching. 1977. Assessing student involvement in learning, In R.J. Menges, M. Weimer, and Associates, Teaching on Solid Ground. San Francisco: Jossey-Bass.

Froh, R.C. and M. Hawkes. 1996. Assessing student involvement in learning. In R.J. Menges, M. Weimer, and Associates. Teaching on solid ground. San Francisco: Jossey-Bass.

Gaff, Jerry G. 1980. Avoiding the potholes: Strategies for reforming general education. Educational Record 60, 50-59.

This paper is a primer for faculty and administrative leaders of a curriculum reform process. It stresses the importance of following an effective process, identifies forty-three procedures used by curriculum committees that lead to potholes, and discusses alternative strategies that may be more successful.

Gaff, J.G., J.L. Ratcliff, and Associates. 1997 Handbook of the undergraduate curriculum. San Francisco: Jossey-Bass.

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Hirsch. E.D. 1987. Cultural literacy: What every American needs to know. Boston: Houghton Mifflin.

Lopez, C. 1998. How campuses are assessing general education. Liberal Education 84 (3), 36-43.

Johnston, Joseph S. Jr., et al. 1991. The demand side of general education: Attending to student attitudes and understandings. Journal of General Education 40, 180-200.

¹³ Annotations provided by AAC&U

The purpose of this article "is to make a case for focusing on student attitudes and understandings in attempts to strengthen general education." Arguing that general education reforms are at an impasse, the authors recommend that campuses turn their attention from what the institution provides to what the students think and need. Students' attitudes and understandings of general education prevent them from recognizing the value of general education, along with other factors: a lack of both leadership and organizational support for general education, inappropriately trained faculty, disincentives to faculty for general education teaching and advising, and higher education institutions' inertia in improving the process of general education. This essay recommends integrating student services such as orientation and career guidance into academic advising and calls for greater assessment of students' general cognitive development, attitudes, and proclivity toward learning.

MacDonald, W.B. Trends in general education and core curriculum: a survey. Academic Skills Centre, University of Toronto, Mississauga.

Meacham, Jack 1996. Assessing general education: A questionnaire to initiate campus conversations. Washington, DC: Association of American Colleges and Universities.

Conceived as a way "to help college and university faculty and academic administrators initiate a conversation about general education," this questionnaire identifies 28 categories for thinking about and assessing general education curricula. Educational practitioners can use this document to analyze their own curriculum and compare their own and others' perspectives on the core curriculum.

Miami University, 1988. The Miami Plan for Liberal Education. Oxford, Ohio.

Newell, William H., ed. 1998. Interdisciplinarity: Essays from the Literature. New York: College Entrance Examination Board.

This anthology contains numerous essays discussing the potential of interdisciplinary study and suggesting solutions to many practical problems encountered by college and university interdisciplinary programs in institutions structured around academic disciplines. Growing out of the 1992 Institute in Integrative Studies, the book demonstrates how present conditions in higher education call for greater interdisciplinarity. The essays lay out the major issues and evaluate the current status of interdisciplinarity, while Newell provides a literature review and research agenda.

Project on Strong Foundations for General Education. 1994. Strong foundations: Twelve principles for effective general education programs. Washington, DC: Association of American Colleges.

This monograph recommends strategies and procedures for sustaining vitality and strength in general education. Twelve principles are drawn from practices at colleges and universities that have made a variety of improvements in general education curricula. Included are examples from all types of colleges and universities.

Schneider, Carol G., and Robert Shoenberg. 1998. Contemporary understandings of liberal education. Washington, DC: Association of American Colleges and Universities.

This discussion paper examines the emergence of broad agreement on what students ought to learn from their baccalaureate studies and finds a strong trend toward collaborative, experiential, service, and integrative modes of learning. But the authors also contend that outdated structures, practices, and reward systems frustrate higher education's ability to reap the full benefits of new directions in general education reform.

Task Group on General Education. 1988. A new vitality in general education: Planning teaching, and supporting effective liberal learning. Washington, DC: Association of American Colleges.

General education is defined as "the knowledge, skills, and attitudes that all of us use and live by during most of our lives—whether as parents, citizens, lovers, travelers, participants in the arts, leaders, volunteers, or good Samaritans." This monograph provides many examples of curricular alternatives, approaches to teaching and learning, and administrative support necessary for effective general education.

Zemsky, Robert. 1989. Structure and coherence: Measuring the undergraduate curriculum. Washington, DC: Association of American Colleges.

After studying more than twenty-five thousand student transcripts, Zemsky concludes that “there is a notable absence of structure and coherence in college and university curricula.” This monograph discusses breadth and depth in college students' learning in light of the results.