

**Revised Final Report of the
Undergraduate Curriculum
Review Committee
March 2003**

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Executive Summary

Any review of the General Education Curriculum (GEC) at OSU must be based on both the University's larger aspirations, as articulated in the Academic Plan, and its desire to enhance the quality of the educational experience offered to students. After a process of extensive research, broad consultation, intensive review, and incorporation of feedback from the University community, the Undergraduate Curriculum Review Committee (UCRC) believes that the recommendations made in this Report address both these concerns in equal measure.

The Current GEC (chapters II and III)

General education requirements vary greatly across majors and colleges at OSU. While the GEC is often thought of as requiring 105 credit hours, the reality is that 46% of OSU's graduates have GECs in the range of 60-85 credit hours; even these figures are misleading because only 1.6% of OSU's first quarter freshmen in Autumn Quarter 2001 were required to take the full 20-credit foreign language sequence. As a result the maximum GEC for 98.3% of our students was 100 credit hours or less (see chapter II). The variation in GEC credit hours also arises from the fact that each undergraduate degree-granting college develops its own GEC in cooperation with the Colleges of the Arts and Sciences.

Even so, **this range is comparable to benchmark and top 20 public institutions** (see pages 15-21 and Appendix C pages 78-98). Despite the widespread perception that OSU's GEC is significantly more extensive and complex than general education curricula at other institutions, our research has shown that this is not the case. When OSU's current GEC is compared to similar requirements at other institutions, we note that ten out of eighteen universities in the comparison group require more general education and/or breadth requirements than does OSU. Six out of nine of our benchmark institutions do so as well.

Curricular Recommendations (chapter IV)

Our recommended curriculum is designed to fulfill the Goals of a General Education (page 23) which we established after extensive research into the theory of general education and its role in the notion of a university education (see Appendix A) as well as our study of previous GEC review committee reports. We believe the curriculum recommended here is characterized by increased flexibility and greater coherence.

Our model curriculum recommends:

- that, because certain skills – speaking and writing, critical listening and reading, and logical thinking – are, in our view, so important to students' success that the responsibility for their inculcation lies with the entire university community, all new GEC courses document their contribution to these **Embedded Competencies**, and that a system of outcomes assessment be developed to evaluate the University's efforts in these areas;
- that EM credit for English 110 satisfy the First Writing requirement (just as EM credit is applicable to any other GEC area);
- that the third writing course be implemented for all undergraduate students;

- that Mathematics Placement Level L satisfy the Mathematical and Logical Analysis requirement for BA students;
- that those requirements currently phrased in terms of sequences be broadened to include clusters (pages 25-26);
- that the Social Science area be restructured so as to require fifteen hours representing at least two departments, ten of those courses forming a cluster;
- that a process be developed whereby major programs may request that their students be exempted from a requirement on the grounds that courses in the major meet the same academic goals;
- that the “Drop-GEC-course” option be retained only for those majors which currently have it;
- that further study be undertaken as to how ethics and professional responsibility and an understanding of the role of technology in our society can be incorporated into the curriculum; and
- that, if funding is available and such courses would not constitute a teaching overload, the University institute freshman seminars in which first-year students would have special opportunities for early contact with the faculty through small seminars taught by faculty, educational opportunities that would anticipate and mirror the later capstone experiences.

The proposed curriculum makes significant use of **clusters**. While this may seem like a new concept, it is in reality a codification of existing practice: several sequences in the Natural Sciences are structured so that a single course serves as a springboard for a variety of follow-up courses across a wide range of departments. We recommend that an expansion of sequencing, in which the courses involved need not have a prerequisite-based relationship, be adopted under the name of “clustering”. It is important to note that this recommendation assumes that all current sequences will be grandfathered in as clusters.

Budgetary issues will have a significant impact on the development of this curriculum. We acknowledge that fiscal support will be required both to implement our recommendation that the third writing course be required of all students and also for development of more capstone courses. However, these areas were nearly unanimously described throughout our consultations, by students and faculty, as essential parts of a general education curriculum. Likewise, our research has demonstrated that the most valuable and effective general education courses are precisely the most expensive: small, faculty-led courses. We call upon the Office of Academic Affairs to provide the level of financial support required to implement the third writing course for all students and to provide sufficient capstone offerings that BA students might have an adequate set of choices in their course selection. (page 29)

Ancillary Recommendations (chapter V)

We also affirm that **the effectiveness of a general education curriculum transcends course requirements**. Our research and consultation has led to a diverse series of Ancillary Recommendations. Most importantly, we recommend that **the University establish a standing GEC Oversight Committee** to conduct outcomes assessment, to undertake the periodic reviews of the GEC itself, to evaluate the role of the GEC in the University’s hours-to-graduation policy, to make recommendations to the Council on Academic Affairs, the Arts and Sciences Curriculum Committee,

the Arts and Sciences Senate, and the University Senate as appropriate, and to function as a liaison between the Arts and Sciences Curriculum Committee and the Council on Academic Affairs. We also recommend that the University:

- address inaccurate perceptions about general education and the GEC in the university community,
- include more GEC courses as a part of the faculty's teaching responsibilities and continue to improve Graduate Teaching Associate teaching,
- offer more sections of over-subscribed GEC courses,
- increase the variety of times courses are offered across the academic day.
- improve the GEC course approval process,
- encourage the addition of upper-level courses to the GEC lists,
- develop a web-based tool to help students navigate the GEC,
- identify and publicize "best practices" for advising students.
- develop more effective means of communicating GEC requirements to students,
- continue to explore a four-year graduation plan, and
- continue to allow Honors students flexibility in meeting GEC requirements.

The GEC and Time to Degree (chapter VI)

Our findings, based on information from The Office of The University Registrar and a number of other sources, as well as a survey we commissioned through the Office of Resource Planning and Institutional Analysis, indicate that **the General Education Curriculum does not hinder timely graduation**. Furthermore, our students complete approximately 40.9 courses for graduation compared with 45 courses at comparable institutions. Since we know that **there is no consistent practice at OSU regarding the assignment of credit hours to courses**, we concur with the research that reducing credit hours to graduation even more than we already have might place our students at a considerable educational disadvantage. **Thus we recommend that the issue of credit hours per course be studied in detail in the near future and that the total number of hours required for graduation not be reduced at this time.**

Nonetheless, **there are ways in which the University can contribute to the timely graduation of its students, including the following:**

- providing in orientation materials information as to what average number of credit hours per quarter must be taken for timely graduation,
- providing explicit plans in orientation materials as to how one might graduate in a timely manner (See Ancillary Recommendations 8-12),
- sharing data with students on the relationship between the number of hours students work and time to degree (Appendix E),
- revising credit hour policies and practices at some point in the near future.
- sharing data on the relationship between students' dropping courses and time to degree (Appendix E), and
- developing more three- and four-credit courses so that it will be easier for students to schedule more than fifteen credit hours in any given quarter.

Consultation (chapter VII)

The Committee **consulted widely across campus with advisors, students, faculty, and administrators** and includes in its Final Report summaries of those discussions.

Conclusion (chapter VIII)

Many of the Committee’s recommendations echo the Academic Plan, and all of them **contribute directly to significant elements of the Core Values enumerated in the Plan**—namely, our obligation to pursue knowledge for its own sake, to ignite in our students a life-long love of learning, to open the world to our students, and to celebrate and learn from our diversity.

The Undergraduate Curriculum Review Committee holds that the implementation of its recommendations will significantly enhance undergraduate education as well as help move the University forward in its goal of achieving its great educational potential. Furthermore, we are here proposing a curriculum that compares favorably with those of benchmark and top-twenty public institutions and, according to a study of 305 diverse universities, is in keeping with prominent national trends, specifically the trend that general education curricula across the nation are characterized by “an emphasis on the liberal arts and sciences, attention to fundamental skills, high standards, [and] increased structure” (Gaff 207).

Revision of the Report

In revising the Draft Report, the Committee carefully examined all the extensive feedback we received from the University community (see Appendix F) and that feedback very much informed this revision.

Our recommendations are indebted to the Special Committee for Undergraduate Curriculum Review, chaired by Gerald Reagan; the Special Committee for Undergraduate Curriculum Review in the Arts and Sciences, chaired by Charles Babcock; and the 1995-96 review of the GEC, chaired by Martha Garland. We hope that this Report affirms the wisdom, sound judgment, and insight of our predecessors.

I. Introduction

One of the most important curricular initiatives in the history of Ohio State University was the development and implementation of the General Education Curriculum (GEC). From 1986 to 1991, first the five Colleges of the Arts and Sciences, then the ten other colleges with undergraduate programs, were heavily engaged in the development and implementation of this new curriculum.

The GEC became a focus of attention again in 2001 because of the Ohio State University Academic Plan (2000), which was designed to help the University move forward and become one of the world's truly great institutions of higher education. In October 2000 University President William Kirwan asked the University Senate leadership to form a committee to study the GEC and establish its charge.

This fourteen-member committee, the Undergraduate Curriculum Review Committee (UCRC), was established in January 2001 and included twelve faculty members from eight colleges—three of whom were outside Arts and Sciences (ASC)—and an undergraduate and a graduate student. Three of the faculty members also represented other constituencies (the honors program, the regional campuses, the Council on Academic Affairs); three held administrative positions related directly to curricular matters (two as Associate Deans and one as Vice Provost). The committee's charge was two-fold:

- to study those factors which may impact retention of students to the baccalaureate degree and which may influence the time required to reach that degree, and
- to consider the strengths and weaknesses of the present General Education Curriculum and prepare suggested modifications that are appropriate to a core curriculum at Ohio State.

The remainder of the Introduction lays out the background for UCRC's work, its activities, and the relationship between this Report and the Academic Plan. Separate sections on the General Education Curriculum at OSU, General Education Requirements at Benchmark and Top-Twenty Public Universities, Curricular Recommendations, Ancillary Recommendations, Time to Degree, and Consultation on the GEC will follow.

A. Background: An Overview of the History of the GEC

A pervasive feature of the history of Ohio State University and most other universities has been the continuing conversation about the extent of, and curricular balance between “general education” and “specialization” in undergraduate major programs. In the mid-1980s, OSU did not have a consistent set of university-wide general education requirements across the fifteen undergraduate academic colleges. Instead, there existed a set of “Basic Education Requirements” (BER), distributed equally among three subject-area categories (Humanities, Social Sciences, and Natural Sciences). The categories were so broad and the courses within them so disparate that students had little sense of how they constituted a general education. Moreover, students in the five Colleges of the Arts and Sciences (Arts, Biological Sciences, Humanities, Mathematical and Physical Sciences, and Social and Behavioral Sciences) had a more extensive set of “Liberal Arts Requirements” (the LAR) to complete.

Given this situation, in 1985 University President Edward Jennings, through the University Senate, requested an institution-wide review of the undergraduate curriculum with the goal “to identify a basic body of knowledge, thoroughly grounded in the liberal arts, that each of our students would be required to achieve.” Subsequently, a systematic, rigorous, and open review took place. It included four major steps.

First, the review began with the establishment of a University-wide Special Committee for Undergraduate Curriculum Review, composed of 11 faculty members. Its Interim Report (1986) identified the “attributes of an educated person,” provided a rationale for them, and described them within the context of both national and university settings.

Second, late in 1986 Provost Myles Brand established a Special Committee for Undergraduate Curriculum Review in Arts and Sciences, composed of 10 faculty members and one student from the Arts and Sciences. For continuity, two members of the Special Committee for Undergraduate Curriculum Review participated in ex officio roles. Early in 1988, this Committee produced a model curriculum for general education in the Arts and Sciences. The categories for the model included

- Writing and Related Skills,
- Quantitative and Logical Skills,
- Foreign Language,
- Social Diversity in the United States,
- Natural Science,
- Social Science,
- Arts and Humanities, and
- Capstone Experiences.

In this report Bachelor of Arts (BA) requirements ranged from 19-23 courses (95-115 credit hours); Bachelor of Science (BS) requirements were 20-22 courses (100-110 credit hours). Of particular centrality in this model were a) the breadth of the categories (and subcategories), two of which—Social Diversity in the United States and Data Analysis—were perceived as important new topical areas for a general education curriculum and b) the fact that general education extended over all four years of the undergraduate program and included a “capstone” experience. This model curriculum was approved by the Arts and Sciences’ Faculty Senate.

Third, during the years 1988-90, academic units submitted course proposals designed to fulfill the requirements of the various categories. As initially charged, the Special Committee for Undergraduate Curriculum Review in Arts and Sciences supervised the implementation of this model, but faculty Review Panels were established for each category, and the Colleges of the Arts and Sciences Curriculum Committee played a central role. This model curriculum was then approved by the Council on Academic Affairs, the University’s curricular oversight body.

Fourth, with that model in place, each of the other colleges with undergraduate programs developed, in accordance with Faculty Rule 3335-5-27 (B), a general education curriculum, aligned with the model for Arts and Sciences. As each specialized GEC was developed, the proposing unit sought and obtained approval from the Council on Academic Affairs.

Implementation brought with it minor alterations to the GEC within the Arts and Sciences colleges and more significant ones outside ASC. For fiscal reasons, some categories, notably the foreign language requirement, the third writing course, and the capstone course were

not fully implemented. Some colleges outside the Arts and Sciences chose to limit the number of courses in individual categories from which students could choose.

In 1995-96 the Colleges of the Arts and Sciences Curriculum Committee, supplemented with six members from other colleges, undertook a full review of the GEC for Arts and Sciences. It was determined that most faculty, students, and advisers responded positively to most aspects of the GEC, and thus no major structural changes were proposed. Minor modifications in credit hours for the BS degree (in particular the “Drop-a-GEC-Course”) were made.

Lastly, in 2000 the University’s Academic Plan called for another review of the GEC. Specifically it raised a number of issues centering on general education, virtually all of which are addressed in this Report:

- The importance of students learning about diversity, global perspectives, and technology is emphasized throughout the Academic Plan. This document lists five Core Values that represent OSU’s “true essence.” Diversity is central to the first two of these—creating a diverse University community and helping build Ohio’s future. Thus the Plan asserts that we must “celebrate and learn from our diversity” and “open the world to our students.” The reasons given for why Ohio needs a great university echo the Plan’s Core Values in stressing Ohio’s relationship with the rest of the globe and our increasingly diverse world. Various other observations in the Plan also emphasize the desirability of making students aware of diversity (at home and abroad) and of global interconnectedness. UCRC’s recommended curriculum affirms the current GEC in emphasizing this pressing need as expressed in the Core Values.
- Increasing course accessibility and reducing class size are listed as among the Plan’s six Strategies and Initiatives. We have made a number of ancillary recommendations on both these issues and affirm the importance of retaining two such courses—the third writing and capstone offerings.
- Improving the Organization and Delivery of Instruction is one of the four Facilitating Actions, specific steps designed to help OSU meet the goals of the Academic Plan. This section of the Plan asks whether the current curriculum “may [still] be appropriate for today’s better-prepared students.” Accordingly, UCRC conducted an extensive investigation into 1) the GEC at OSU (how the GECs vary from college to college and program to program) and 2) the GECs at top-twenty and benchmark institutions to determine whether or not OSU’s general education curriculum is in line with curricula at these institutions. The results of these studies show that there is a clear consistency between our requirements and those of our comparable institutions. However, the data we examined and much of the consultation we undertook across the University community convinced us (and, to judge from the extensive feedback to its Draft Report, the vast majority of the university community) that the current curriculum is not exceptionally long. Thus, in our view, it is and will continue to be appropriate for the foreseeable future.
- The Academic Plan calls for a “thoughtful redesign of the curriculum,” which we think we have provided with the increased flexibility and the other changes contained in our recommended curriculum.
- The Academic Plan also alludes to the desirability of the “enrollment of more freshmen directly into academic colleges,” an initiative already implemented through the office of the Vice Provost and Dean for Undergraduate Studies. As a result of direct enrollment,

students may be more likely to receive information about the GEC only as it pertains to their college of enrollment. Thus UCRC's recommendations with respect to advising and the (mis)perceptions of the GEC within the University community (Ancillary Recommendations 8-12) will help students better understand and navigate the GEC should they decide to change colleges later on.

- The Plan also argues for a “first-year experience that provides support for students in their early months at Ohio State [that] will help [them] get the courses they need and want [and] make transfers from one major to another as seamless as possible.” This redesign of the first-year program is already well underway and an initiative from President Karen Holbrook to establish a series of freshman seminars will only enhance this program. Furthermore, the advising system has been substantially revamped; this Report issues recommendations for further improving the advising process and making it more flexible and user-friendly (see Ancillary Recommendations 1-5 and 7-10).
- The Academic Plan also suggests that we, as an institution, should “help students graduate in four years.” The Colleges of the Arts and Sciences, along with many other colleges, already have in place curriculum plans that demonstrate how students in these programs can achieve timely graduation. Furthermore, Ancillary Recommendations 2, 4, 5, 7-12 and the increased curricular flexibility derived from “clusters” should assist students in graduating in four years.

Thus the Report at hand, as the latest in a series of studies on the vital function of general education in the University's curriculum, is a response to OSU's historical and current commitment to excellence in both its institutional and its educational missions.

B. The Current Review

Since it was established, the full Committee has met weekly over a period of twenty-seven months. Subcommittees were established to work on selected topics and met independently. The Committee, in the following order:

- familiarized itself with the details of the current GEC. It reviewed the reports of the committees that produced this curriculum; studied the variability in GEC requirements among OSU's colleges; and examined in detail the materials from the 1996 review of the Arts and Sciences GEC,
- read, reviewed, and discussed recent scholarship on the status of and directions in general education, curriculum, and curricular change across the nation (see Appendix A); analyzed the general education curricular requirements of peer institutions; and debated the distinctions between a core curriculum and a distributional curriculum,
- met with members of the University community who have important perspectives and expertise on general education including Presidents Kirwan, Jennings, and Holbrook, the Executive Vice President and Provost, the Vice Provost and Dean of Undergraduate Studies, the Associate Vice President for Enrollment Services, the curricular Associate Deans in Arts and Sciences, instructors who regularly teach GEC courses or direct important components of it (e.g. first-year writing), and college advisers from within and outside Arts and Sciences,

- sought input from faculty through two open fora which approximately one hundred faculty attended; sought input from undergraduate students through ten focus group meetings (including one for regional students at the Newark Campus) and one USG forum with a total of approximately seventy-three attendees; and established a web site for information sharing with the University community,
- analyzed and evaluated the inter-related issues with which the committee was charged (among the topics discussed were the role of technology in today's university education, the perception of the GEC within the University community, methods for more effective course delivery, the GEC course approval process, the addition of new courses to the GEC, the role of electives in university education, advising, honors, the establishment of an oversight mechanism for the GEC, the problem of closed courses, issues of transfer—both intra- and inter-institutional, study abroad programs, internships and cooperatives, preparation for professional and graduate programs, specialized accreditation, and four-year graduation plans),
- considered the potential impact of budget restructuring/rebasing on general education courses, and
- discussed the need to develop outcomes assessment for GEC components.

After the Draft Report was finished, the Committee initiated the following:

- Hard copies were distributed to Presidents Kirwan, Jennings, and Holbrook, the Executive Vice President and Provost, the Senior Vice President, the Vice Provost and Dean of Undergraduate Studies, the Dean of the Colleges of Arts and Sciences, the University Registrar, all Deans and Directors, the Secretary of the Senate, the Secretary of the Faculty, the Chair of Faculty Council, the Chair of the University Senate Steering, the Arts and Sciences Curriculum Committee, the Chair of the Council on Academic Affairs, and the Presidents of Undergraduate Student Government, the Council of Graduate Students, and the Inter-Professional Council. We also asked that Deans and Directors circulate this document to the departmental chairs and urged all these individuals and groups to provide feedback to the Committee.
- An e-mail was sent to all regular university faculty informing them where they could find the Draft Report on the University Senate web site and encouraging them to read and comment upon it.
- The chair and the Committee consulted with the following individuals and groups to listen to their thoughts and concerns about the Draft Report that those thoughts and concerns might inform the revision of it:
 - Interim President Edward Jennings
 - President Karen Holbrook
 - The Council of Deans
 - The University Senate
 - The Executive Dean of the Arts and Sciences (with whom we have been in constant contact throughout the last nine months)
 - The Assistant to the Executive Dean of the Arts and Sciences (as above)
 - The Department Chairs/Schools Directors
 - The Secretary of the University Senate (many times)

- The University Senate Faculty Council (twice)
- Faculty Cabinet
- The University Senate Steering Committee
- The Arts and Sciences Curriculum Committee (twice)
- The chair of the Council on Academic Affairs
- The committee that empanelled UCRC
- The Executive Committee of the College of Humanities
- The chairs of the foreign language departments
- Undergraduate Student Government Senate
- Undergraduate Student Government Policy Committee (twice)
- The President of Undergraduate Student Government (several times)
- a special focus group convened by Undergraduate Student Government.
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- The chair of UCRC met, at their request, with many individual administrators, faculty, and students to discuss the Draft Report and clarify its recommendations and their ramifications and also discussed the Draft Report over e-mail with many administrators, faculty, students, and committees, and organizations.
- UCRC received feedback from these groups and individuals and a number of others as well (see Appendix F “Summary of Feedback on the Draft GEC Report from the University Community”).
- The Committee began meeting again in January of 2003 to address the concerns of the community and compose the Final Report.
- The Final Report was unanimously approved at the March 14 meeting of the Undergraduate Curriculum Review Committee and distributed the first week of April 2003.

The remainder of this Report focuses on the results of the Committee’s analyses and its recommendations in light of its extensive study of these issues and the feedback from the university community. A set of appendices provides more detailed information on many of the topical areas and on the feedback.

II. The General Education Curriculum at OSU

The members of this Committee have often heard students and faculty express the belief that the GEC requirements at Ohio State are more extensive than those at other universities. Some also speculate that the length of these requirements has a negative impact upon students' time to graduation. As will be seen in this Report, neither of these perceptions is supported by data (see the chapters "General Education at Benchmark and Top-Twenty Universities" and "Time to Degree").

It is important for us as a university community to know what the GEC at OSU really is. Despite the unitary way in which we talk about it, there is no uniform entity that is "the GEC." It is often said that the GEC is a 105-credit hour requirement, but as the tables in Appendix B indicate, the matter is considerably more complicated. The fact that OSU has GECs that vary widely in credit hours arises out of Faculty Rule 3335-5-26, which states:

The faculty of the Arts and Sciences shall have jurisdiction over . . . the basic education requirements for all programs in the arts and sciences, and joint responsibility for planning the basic education requirements for colleges outside the arts and sciences on a cooperative basis.

Thus, in consultation with the faculty of the Arts and Sciences, each college or school develops for its students a set of general education requirements which is then approved by the Council on Academic Affairs. (In practice this consultation has taken place with the Arts and Sciences Curriculum Committee.) Currently each degree-granting unit has an approved GEC modeled on that of the Arts and Sciences GEC but by no means identical to it.

Table I in Appendix B shows how the original GEC model was implemented in the various units that award undergraduate degrees. The table indicates

- that colleges outside the Arts and Sciences (with the exception of the International Business major) did not adopt a foreign language requirement,
- the infrequent adoption of a capstone requirement,
- the high degree of variance in the adoption of a third writing requirement, and
- the near-universal adoption of second writing, data analysis, social science, arts and humanities, and diversity categories, although often with fewer credit-hour requirements than prevails in the model.

The data in this table have been abstracted from college bulletins and the formal advising sheets published by departments that describe the requirements for their majors.

The impact of the University Rule stipulating the role of faculty of the Arts and Sciences in planning the basic education requirements for other colleges is evident in the high degree of similarity in the categories of GEC requirements. Nevertheless, variation is apparent, for example, in the number of requirements that can be met (at least in part) by courses taken in the major (e.g. the BS in Architecture, the BS in Engineering, and the BS in Social Work), in the adoption of a foreign language requirement (which, with the exception of the International Business major, applies only in Arts and Sciences), the presence or absence of a third writing requirement, and other variations from the ASC model. If one omits the language requirement and components of the major that also have been approved for GEC credit, the number of credit hours required by these different GECs varies (as Table III indicates), from 60 in the BFA in Dance to 98 in most Business majors, with the majority of these GEC requirements falling in the

75-84 credit hour range. As to the extent to which credit hours in the different GECs vary, the following table indicates GEC credit hours in the individual major programs. (For instance, a program with a range from 80 to 96 credits will appear in the left-hand data column as 96 and in the right-hand data column as 80).

	Using higher number of credit hours where there is a range	Using lower number of credit hours where there is a range
95-105 credits	76 major programs*	12 major programs
85-94 credits	6 major programs	12 major programs
75-84 credits	44 major programs	99 major programs
65-74 credits	13 major programs	16 major programs
Below 65 credits	1 major program	1 major program
Total	140	140

* 58 of these are Arts and Sciences' BA and BS major programs

These figures indicate that, using the lower number of credit hours where there is a range, 83 of OSU's major programs require 84 or fewer credits of GEC courses (that is to say, 44% of the total hours required for graduation). At the higher end of the range (this range to a certain extent accounted for by the foreign language requirement), 41% of our major programs require 84 or fewer credits of GEC courses. These figures are within 1%-4% of the recommendations of a number of national specialists in curriculum and curricular reform (Cheney 1989, Gaff 1991:71, Kantner 1997:38).

Not evident in this table are those instances in which majors, especially outside the Arts and Sciences, specify that only a subset (sometimes quite small) of the approved course list for a given category may be used to fulfill that requirement, thus restricting their majors to a smaller group of alternatives with which to fulfill their GECs. This prescription is readily apparent in the Natural Science and Mathematics categories, but is evident in the Social Science category as well. The two categories subject to the least prescription by major programs seem to be Arts and Humanities, and Diversity.

The foreign language requirement is especially worthy of note here since only 1.62% of OSU's first quarter freshmen in Autumn Quarter 2001 were required to take the full 20-credit foreign language sequence (per Diane Birckbichler, Director of the Foreign Language Center) as a result of which the maximum GEC for 98.38% of our students was 100 credit hours or less.

Table II in Appendix B displays the degree requirements for most of the undergraduate majors at Ohio State. The purpose of this table is to illustrate the relative weights of the several components of a degree, only one of which is the GEC. The data here were furnished by the associate deans who are responsible for curricular affairs in each of the colleges/schools. Although it is not, strictly speaking, a GEC issue, an examination of this table reveals large differences in the number of hours of prerequisite courses required in different degree programs. It is important to note that there are two different kinds of prerequisites—those which count as GEC courses and those which do not. Some prerequisite hours in some majors count towards the GEC but those represented here do not. Similar large differences in hours required for a degree are noted in the column headed "technical electives." Though not always described as such, these are often upper-level courses that are required as a supplement to the major. Finally, the

number of credit hours indicated in the “total” column represents the minimum number required for a degree.

Table III in Appendix B provides a comparison between the Arts and Sciences GEC and the GECs in non-ASC colleges by taking the GEC requirements for a BA in ASC as the basis for comparison and listing only those requirements that differ from these. Given OSU’s repeated affirmation (as manifested in its adoption of the recommendations of the Special Committee for Undergraduate Curriculum Review, the Committee for Undergraduate Curriculum Review in the Arts and Sciences, and the 1995-96 GEC review) that general education should be modeled on the arts and sciences, the extent to which all colleges and major programs incorporate the ASC-based model into their curricula is worthy of note. The observations noted above with reference to Table I are even more apparent here. In addition Table III affords the following observations:

- 33 out of 47 non-ASC majors increase the hours required in certain categories that support the major, thereby making their GEC credit hour totals on the average 8.80-9.46 credit hours higher than would be the case if the major program required the lower number of category requirements recommended by the model. For instance, in these 33 majors a science- or math-based program, a major that requires 10 more credits of Quantitative Analysis and has a total GEC requirement of 76 hours would really require only 66 hours if it followed the model’s guidelines as to the appropriate number of credit hours in each category.
- A majority of degree programs adopted the third writing requirement (either as a separate requirement or as material covered by one or more major courses), but this is not universally true for ASC BS majors or non-ASC majors. (In the case of the ASC BS, this deviation from the model can probably be attributed to insufficient funding, since the BS adheres in virtually all other respects to the ASC model. This may also be the case in some non-ASC colleges.)
- Many degree programs count completion of courses in the major as satisfying a data analysis requirement.
- The widespread adoption of a diversity requirement is generally applied to coursework regarding diversity in the U.S.

It is important to note that only Arts and Sciences and International Business majors have a language requirement. As of Spring Quarter 2002, these students constituted 11,676 (per the relevant curricular associate deans) out of 21,577 declared majors (per the Vice Provost for Curriculum and Institutional Relations) or 54%. (These numbers pertain to the Columbus campus only.) The remaining 46% of OSU’s students have no foreign language requirement, reducing their GEC to a maximum of 85 credits (with the exception of the majors in Business, Nutrition, and Natural Resources who all incorporate more Quantitative and Logical Skills requirements into their GECs than are in the model). A 105-credit GEC constitutes 55% of the total hours required for graduation, an 85-credit GEC 44%, and a 75-credit GEC 39%.

Summary: The GEC course requirements at Ohio State University vary markedly and are considerably more flexible than is usually thought. Furthermore, as these tables indicate, they have been and are continue to be adaptable to the needs of the more extensive majors outside the Colleges of Arts and Sciences.

III. General Education at Benchmark and Top-Twenty Public Universities

As a part of its review, the Undergraduate Curriculum Review Committee researched the requirements for the general education curricula for Ohio State University's benchmark institutions and the top twenty public universities according to the 2002 *U.S. News and World Report* rankings. Some institutions within the top twenty are not represented here (The College of William and Mary, Georgia Institute of Technology, and Texas A&M) because either their extremely specific academic missions or their size rendered them inappropriate as comparison institutions.

The table below and those that constitute Appendix C offer a listing of the actual number of hours that were reported by the respective institutions as comprising their general education curricula. In most cases the tables suggest a range, since the number of hours varies across colleges within institutions. They also show the approximate percentage of the total curriculum which is comprised by the general education/breadth requirements. The data presented in the table below and in Appendix C show that there is little consistency in either the number of general education hours at these institutions or the percentage of the institutions' total curriculum devoted to general education. Ohio State's current GEC with 60-105 credit hours compares favorably with these. Many universities, like OSU, have college-specific general education curricula. Information about these curricula is included in Appendix C. As at OSU, some colleges have quite minimal general education requirements, accounting for the wide variation in some of these data.

We can make the following generalizations from our research on other institutions with regard to the nature of the courses, which are part of our current GEC requirement:

1. **Writing and Related Skills:** Most universities require two to four courses. In some cases, proficiency levels are recognized to meet part of a requirement. Ohio State's requirement for the third writing course that may be taken as part of the major has an equivalent at only a few institutions.
2. **Quantitative/Logical Skills:** Most universities require one semester course to a full year; however, in some cases a prerequisite proficiency level may also apply.
3. **Natural Science:** Most universities, like Ohio State, have a requirement that mandates both physical and biological sciences. While Ohio State's 20-quarter hour requirement may seem high, five out of nine benchmark institutions require similar numbers of courses or credit hours in this category.
4. **Social Science:** Across institutions this requirement is generally very similar to Ohio State's in terms of hours; however the distribution of different areas within the social sciences varies considerably.
5. **Arts and Humanities:** The components in this area of Ohio State's curriculum seem to be required by other institutions as well, although history requirements, like History departments, are sometimes located in the Social Sciences.

6. **Foreign Language:** At most institutions, this is a requirement at a prescribed proficiency level. As at OSU, the number of hours that are required depends upon student proficiency in a given foreign language and college-specific requirements (see Appendix D). Only 1.62% of our students are required to take the full twenty credits hours.

7. **Diversity:** The concepts of diversity and multicultural education are components of most general education requirements that we reviewed. In some cases the requirement is a separate area with credit hours prescribed, while in others it is a requirement with zero credits (as is the case at Ohio State).

8. **Issues of a Contemporary World/Capstone:** This is rarely a separate requirement in the institutions that we reviewed. However the purposes and goals of OSU's capstone course are often incorporated into a number of different areas at these universities. Nonetheless OSU's method of delivery (small, faculty-led classes) is unique.

Based on these findings, we determined that the current GEC (in both the Colleges of Arts and Sciences and other colleges) is comparable with what is being offered at a number of our peer institutions. In other words, when we look at the number of hours that are required (and the percentage of the total curriculum devoted to general education), we find that the GEC at OSU is not inconsistent with those at a significant number of universities in the comparison group. For example, in terms of the maximum number of credit hours required in general education/breadth courses, ten out of eighteen of the comparison institutions devote a higher percentage of the total curriculum to general education/breadth requirements than does OSU. Furthermore, six out of our nine benchmark institutions do so.

In our review of OSU's benchmark institutions and the top-twenty public universities, we found an extremely broad range of required general education hours. Furthermore there is considerable variability in requirements for prerequisites, proficiencies, and additional demands by the major programs. Likewise the percentage of the total curriculum of these institutions devoted to general education varies significantly.

Just as we found many differences among our peer institutions with regard to required hours in the general education curriculum, it is also apparent that a great deal of variability exists in terms of what subject areas are required as a part of the general education curriculum for students at these institutions. While the subject categories required are fairly consistent, the distribution of courses varies considerably. There were also extensive differences in the organizational systems used to define areas under which the courses were clustered and in the number of required hours in each of the above-listed categories. But interestingly, we did not find many specific areas that were markedly different from those of any of the other institutions within the comparison group.

Important Note on Credit Hours in the GEC: In UCRC's Draft Report, the committee, in response to concerns expressed by central administration and some students, recommended a seven hour credit reduction in the GEC. This reduction was overwhelmingly rejected by the university community (see Appendix F: "Summary of Feedback from the University Community on the Draft GEC Report") which deemed the current GEC is of an appropriate length and structure. While various individuals and

students (most prominently Undergraduate Student Government) are of the opinion that the GEC should be reduced, clearly this view is not shared by the university's faculty and deans who virtually unanimously endorse the structure, length, and breadth of the current GEC.

**Numbers of Hours and Percentage of
Curriculum Devoted to General Education at
Benchmark and Top-Twenty Public Universities*
May 2002**

**	Institution*	% devoted to GEC	hours in GEC***
B&T	University of Arizona	50%	66-114
T	University of California-Berkeley	43%	75-81
T	University of California-Davis	25%	28-63
T	University of California-Irvine	53%	84-106
B&T	University of California-Los Angeles	35%	57-68
T	University of California-San Diego	43%	44-112
T	University of California-Santa Barbara	36%	56-72
T	University of Florida	37%	54-80
T	University of Georgia	55%	99
B&T	University of Illinois-Urbana/Champaign	45%	77-83
B&T	University of Michigan	42%	50-102
B&T	University of Minnesota	36%	61.5-90
T	University of North Carolina	48%	78-96
B&T	Pennsylvania State University	53%	75-114
B&T	University of Texas-Austin	50%	69-111
T	University of Virginia	37%	58.5-75
B&T	University of Washington	39%	57-84
B&T	University of Wisconsin	48%	60-111
	The Ohio State University	43%	60-105****

- * Excluding the College of William and Mary, Georgia Institute of Technology, and Texas A & M.
- ** B=Benchmark, T=Top-Twenty
- *** Converted to quarter hours where necessary; represents a range across the university. Individual colleges may differ.
- **** The lower number represents the lowest current GEC (see Appendix B of this Report); the higher number is the maximum credit hours of the Recommended Curriculum.

Comparative General Education Requirements for Major Programs in Arts and Sciences

(These figures come from Appendix C and are all from the institutions' web sites or, in eight out of approximately 500 cases, from telephone calls to advisors in the college office in question. UCRC is happy to share the collected records with potentially interested parties).

Ohio State University

BA	<u>105</u>
BS (including “drop-a-course” option)	<u>100-105</u>
College of the Arts Tagged Degrees	<u>60-88.5 (avg 76)</u>

Benchmark and Top-Twenty Public Universities **88**

U Arizona*	109.5	U Michigan*	97
UC Berkeley	75	U Minnesota*	90
UC Davis	55	U North Carolina	96
UC Irvine	106	Penn State*	112.5
UCLA*	68	U Texas*	106.5
UC Santa Barbara	64	U Virginia	75
U Florida	80	U Washington*	74.5
U Georgia	99	U Wisconsin*	106
U Illinois*	83		

*Benchmark Universities **94**

Adjustment for ranking: All of these institutions except for the University of Arizona are ranked higher than OSU (seven of them are in the top ten) and therefore almost inarguably have more selective admissions standards as a result of which their entering students come to the university with a higher level of preparation than do those at OSU.

Note: The University of California San Diego's colleges are structured according not to academic disciplines but rather to educational and/or ideological philosophies or proclivities (e.g. the Thurgood Marshall College specializes in public service, the John Muir College in environmental concerns, and so on). Thus, in both these charts, UCSD is excluded because its unorthodox organization makes it impossible to compare it to other more traditional curricula.

Comparative General Education Requirements for Major Programs Outside Arts and Sciences

Ohio State University: The following data are taken from Appendix B, Table III of the UCRC Final Report. The number of GEC credit hours listed is that given in the table minus any hours that the unit has added above and beyond the ASC GEC model (e.g. the extra credits in math and/or science for science or professional school majors and history for Music History majors). Also, if a major lists a range of credit hours, the number below is an average of the high and low ends of that range.

AHR	BS Arch	78.5		ENG	CSE	68
	BS Larch	74.5			EE	66
AMP	BS AMP	75			Environ	68
BUS	BSBA				Eng Physics	68
	all but Int'l Bus	84.5			FABE	68
	Int'l Bus	104.5			Geomatics	68
DHY	BS	84.5			ISE	68
EDUC	EMCE	80			Materials Sci	68
	Exercise Science	80			Mechanical	68
	Special Ed	80			Metallurgical	68
	Sport & Leisure	85			Welding	68
	Tech Ed & Tmg	80		FAES	BS Agr	84
	Technol Ed	84.5			BS Food Sci	85
ENG	Aero & Astro	68			BS Nutrition	90
	Aviation	68			BS Nat Res	90
	Ceramic	66		HEC	BS HEC & HM	83.5
	Chemical	68			BS Nutrition	88.5
	Civil	68		NUR	BSN	79.5
				SWK	BSSWK	75

Average GEC Hour Requirements for Major Programs Outside ASC **76**

Benchmark and Top-Twenty Public Universities

(per range listed in Appendix C, averaged, in quarter hours)

U Arizona*	70.5	U Michigan*	78
UC Berkeley	81	U Minnesota*	64
UC Davis	63	U North Carolina	78
UC Irvine	96	Pennsylvania State U*	77
UCLA*	57	U Texas*	69
UC Santa Barbara	62	U Virginia	69
U Florida	54	U Washington*	84
U Georgia	99	U Wisconsin*	81
U Illinois*	77		

Average GEC Requirements for Non-ASC Major Programs **74**

*Average GEC Requirements for Benchmark Non-ASC Major Programs **73**

Advanced Placement Statistics

In an effort to garner more data on the length of OSU's GEC relative to the general education curricula of the top-twenty universities, we asked them all what percentage of their entering freshmen in the fall of 2001 had received Advanced Placement credit for work done in high school. Only nine of the nineteen universities responded but the figures they provided are as follows:

University	% of entering students who received no AP credit
University of Arizona*	43%
UCLA*	12%
UC-San Diego	23%
UC-Santa Barbara	41%
University of Georgia	55%
University of Illinois (U/C)*	21%
Penn State University*	77%
University of Wisconsin*	87%
Ohio State University	77%

* Benchmark institutions

This table suggests that, despite OSU's enhanced selective admissions policy, the entering student population is still well below that of this sampling of the top-twenty public universities and is at or below (often far below) four out of the five benchmark institutions responding. Thus, it is our conviction that a reduction in credit hours in the General Education Curriculum is inappropriate until such time as that gap has been closed.

Summary: It bears repeating that in terms of the maximum number of credit hours required in general education/breadth courses, ten out of eighteen of the comparison institutions devote a higher percentage of their curricula to general education and breadth requirements than will OSU after implementation of the Recommended Curriculum and six out of OSU's nine benchmark institutions do so as well.

IV. Curricular Recommendations

The Undergraduate Curriculum Review Committee is of the unanimous view that a general education curriculum cannot and should not be separated from the totality of the university education students receive at Ohio State. Throughout the extensive consultation the Committee undertook with the University community (see “Consultation”), students and faculty alike were of the conviction that the purpose of a university education is to provide both specialized training within the area of the major and a breadth of educational experience through the GEC and that those two impulses were part and parcel of the same goal – the development of a truly educated person.

This vision of the University’s mission as providing **one** education was also manifest within the Committee itself, where faculty members from the Humanities espoused the necessity for extensive training in Natural Sciences and Mathematics, while scientists and professional faculty evinced strong support for the Humanities (including training in both History and Foreign Language), the Social Sciences, and the Arts. Throughout our deliberations there was unanimity on the absolute necessity for students to receive more training in writing, communication, and critical and logical thinking. This commitment to the totality of students’ educational experience is embodied not only in the model curriculum but also in the Embedded Competencies section thereof (see below) in which we emphasize the role that the entire University faculty must play in the training of our students in some of the most fundamental aspects of a university education.

A. Goals of a University Education at OSU

We believe that a university education should provide students with the skills and knowledge appropriate to achieve both immediate and long-term goals and help them understand more fully and explore more extensively the totality of the human experience. Thus a university education must entail

- a general education curriculum that provides a foundation for continued learning and inculcates a broad understanding of the nature of the world, of the human heritage, and of the ways in which the individual is a part of the larger human community, and
- an opportunity for in-depth understanding of the principles and practices of a particular area of knowledge.

A university curriculum must challenge students and help them grow in both intellect and character. It must teach them about human achievements in the natural sciences, mathematics, the social sciences, the humanities, and the arts. It must also enable students to be productive members of the world community in keeping with the University’s motto “*Disciplina in civitatem*” (“training for citizenship”).

Also central to a university education is the acquisition by students of certain desirable habits of mind, such as

- an awareness that they should become educated, productive, and ethical citizens of both their nations and our world,
- a consciousness of social and political events and of perspectives that contribute to good citizenship,

- an appreciation of and respect for cultural differences,
- an openness to diverse points of view, to varying modes of inquiry, and to new ideas
- the capacity to make informed and discriminating ethical judgments, and
- the motivation (as well as the skills) necessary for life-long learning and wellness

The promotion of these habits of mind needs to occur throughout the curriculum and is not the special province of any one set of requirements or disciplines. Furthermore, such qualities and skills must be nurtured in an environment that values learning, respects diversity, encourages creativity, and provides a sense of community.

B. Goals of General Education

Inseparable from the goals of a university education are those of a general education curriculum. General education establishes the foundation for both advanced study and for a life more richly lived, builds bridges between academic disciplines, encourages continued learning, and augments and rounds out the specialization students receive in their majors. It should offer studies of a broad range of subjects, especially those distant from the planned major, promoting both an openness to challenges and expanded interests. This part of the undergraduate curriculum acquaints students with the knowledge and experience represented by the finest in human thought, expression, and inquiry, one of the functions of this exposure being to challenge the notions and ideas with which students are already familiar. This part of the undergraduate curriculum should also enable students to function in a culture of citizenship that emphasizes the responsibilities of the individual to the local, national, and global community. An effective general education curriculum must also provide competence in skills that are basic to continued learning and to success as a productive adult no matter what the graduate's field of specialization.

After extensive reading in and discussion of the principles and practices of general education, UCRC finds continuing relevance in the "Interim Report of the Special Committee on Undergraduate Curriculum Review" and its conviction that the goals of a general education are achieved through the careful articulation of a curriculum that should prepare/enable students to:

- write and speak with clarity and precision so as to advance thoughts and arguments cogently and persuasively
- read and listen critically and with comprehension and intellectual curiosity
- engage in critical analysis and logical thinking
- understand the processes used in modes of inquiry across varying disciplines
- understand, evaluate, and present quantitative data and symbolic terms
- know about the forces that regulate the human life cycle and shape our environments and our universe, and understand the interactions among science, technology, the universe, the individual, and society
- know and appreciate the rich variety of creative expression as articulated in literature and imagined and celebrated in the visual and performing arts
- comprehend the forces that have influenced the shaping of society and thus understand the foundations of the contemporary world in terms of both individuals and groups

- acquire an understanding of institutions in the United States and the pluralistic nature of American society and develop an appreciation for the range of cultural traditions that have formed and informed our nation
- achieve an understanding of and develop an appreciation for the cultural diversity and global interdependence of the modern world
- appreciate and understand other cultures and modes of thinking through facility with at least one language other than English

In the view of the Undergraduate Curriculum Review Committee and most of the university community, the notion of what constitutes an appropriate and life-enhancing general education has not changed markedly in the years since the GEC was established. Nonetheless certain changes have taken place since then that affect how academic disciplines operate. For example, we conclude that students should have a heightened understanding of the role technology plays in our larger society and culture and that they should confront systematically issues of ethics. That said, it remains our conviction that now, as when the GEC began, our culture expects an educated person to have certain skills and proficiencies and also to have at his or her command a certain body of knowledge. To deprive our students of that knowledge is to do them a great disservice both in their careers and in their lives.

C. A Core Curriculum or a Distributional System?

After the Committee had completed its extensive readings in curriculum and curricular change, a long and fruitful discussion arose as to whether Ohio State's students would be better served by a "core" system of general education, in which all students take exactly the same courses, or a "distributional" one which is characterized by tracks, options, and a certain flexibility. Ultimately the Committee decided against recommending a "core" system because of its impracticality for an institution of our size (as of Autumn 2001, OSU had approximately 42,800 undergraduates). It simply does not seem feasible to require thousands of entering students to take the same small set of courses; to do so would constitute an extraordinary hardship upon individual departments unless central administration committed to far more new faculty hires than seems fiscally possible at this point. If the University was unable to implement all aspects of the GEC (such as the universal foreign language requirement, the third writing course, and the capstone course) a decade ago because of limited resources, it seemed to us unrealistic to expect that the massive faculty hiring that a core system would necessitate could come to pass.

Nonetheless, the Committee's decision in favor of a distributional system was not motivated solely by fiscal concerns. It is our view (and a majority of the Committee members teach lower-level and/or GEC courses) that students come to the University (as is the case with almost all institutions around the country) with limited or no experience in certain important areas of knowledge essential to the graduate of a major university. For instance, upon arrival at OSU most of our students' experience of the social sciences ended at the 10th grade with perhaps one civics course in their junior or senior year in high school, and very often their exposure to the humanities is confined to having read (in a quite rudimentary way) a handful of literary texts. Likewise their knowledge of the visual and performing arts is usually restricted to performance courses such as Band, Orchestra, Chorus, or practical art courses in which they have received little training in the appreciation or critical evaluation of these disciplines. Furthermore, recent surveys document that half of the students graduating from US high schools lack fundamental

scientific knowledge and that US twelfth-graders fare very poorly when their general scientific knowledge is compared to that of equivalent students in other countries. Finally, our students, generally speaking, do not have what most of the nationwide university community deems adequate training for a university graduate in a foreign language (see Appendix D). Thus, because of the size of OSU's undergraduate population, our current fiscal constraints, and the need for students to receive training in a wide variety of disciplines, and because fundamentally different kinds of learning take place in different disciplines, it is our considered opinion that only the distributional system is suited to the needs of our students and appropriate to both the University's fiscal circumstances and its mission to become a first-rate educational institution.

D. Courses versus Credits

Our Draft Report recommended that GEC requirements be rendered in terms of number of courses rather than number of credits, allowing requirements to be met with a combination of three-, four-, and five-credit courses. This recommendation would have fostered flexibility: in contrast to the current five-credit hour standard system, courses with fewer class meetings would be easier to schedule and it would have been easier for students to pick up a few more hours in certain quarters. This flexibility might have helped students in their quest for more timely graduation. Reduced credit hour courses might also have had a beneficial effect in encouraging students to take courses outside their "comfort zone."

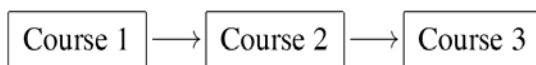
This recommendation, however, was resoundingly rejected by the university community primarily because of fiscal considerations and related non-pedagogical issues. We are therefore withdrawing that recommendation from this report.

We note, however, that the core concerns that prompted this recommendation still remain and must be addressed by the university. Specifically, we believe that course content should determine credit hours, not vice versa, and there must therefore be a more accurate alignment between credit hours and course content. Units should be encouraged to examine their course offerings to ascertain whether there is a problem in this area. It must also be noted that the introduction of three- and four-hour courses does not *ipso facto* result in diminished quality in the curriculum. Rather, we would suggest that offering a course for five hours solely because it "has to be" five credits is academically unsound.

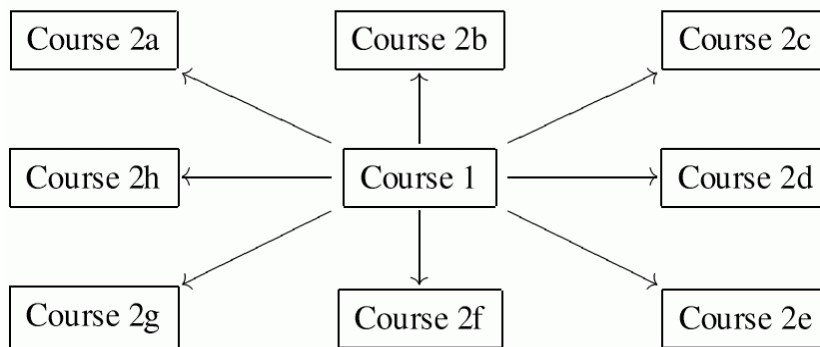
E. Clusters

Some of the requirements in our recommended curriculum are defined in terms of clusters; it is therefore appropriate to explain the concept more fully at this point. By the term "cluster", we refer to a set of two courses that have an important relationship to each other. In particular, we can envision three kinds of clusters:

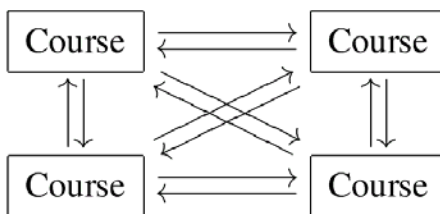
1. The traditional "sequence" in which earlier courses provide a basis for the courses that follow; the courses are offered in an ordered set. This is the traditional notion of sequence and is currently used in the Historical Survey requirement.



2. A set of courses that follow a single entry course. While such a set of courses may take a number of forms, one example might be a broad introductory course followed by a number of possible course selections (potentially small section upper division courses) that explore one or more topics in depth (potentially using strategies that are not possible in larger courses, such as problem-based learning). This model is currently present in the Natural Science sequence requirement.



3. Pairs or groups of courses that are related but which students need not take in a particular order. This possibility does not exist in the current GEC.



We believe that each of these three models has pedagogical merit. In particular, the second and third models provide a wealth of interdisciplinary possibilities (as the current biological/natural science “sequences” illustrate, the two courses will often come from different departments). In addition, the greater variety in the offerings of each category will lead to a more flexible curriculum.

It is important to note that model 3 is the only innovation here – models 1 and 2 are represented in the current GEC. Thus the administrative burden brought by this change should be quite minimal. The procedure already in place for “sequence” approval need merely be revised in terms of its guidelines in order to establish a procedure for cluster approval.

Equally importantly, we would note that a cluster originates at the will of the faculty in **all** departments concerned (and generally consists of courses that have already been individually approved for the list in question) and then proceeds, as all current GEC offerings do, to the Arts and Sciences Curriculum Committee for approval. Naturally, we would expect that the introduction of clustering into an area where it does not currently exist (see our recommendation on the Social Science requirement) would not be implemented until a “critical mass” of clusters had been approved by the relevant faculty panel. In areas where clustering already exists (even if under the name of “sequences”), we expect that all currently-extant sequences would be maintained as clusters.

F. The Recommended Curriculum

I. Embedded Competencies

The Embedded Competencies component of the curriculum is intended to encourage **all** University faculty to assume responsibility for certain “desirable habits of mind” that are innate to a good university education. This has no course or credit requirement. Instead, this area reflects the conviction that the major and the GEC curriculum must work together to strengthen these competencies:

- speaking or writing skills
- critical listening and reading
- logical thinking

In order to attain this goal, we recommend the following:

- Each proposal for a new GEC course will be expected to show how that course supports and contributes to the acquisition of some or all of these competencies.
- When a new major curriculum is proposed or an existing one significantly modified, the proposal must document how the curriculum supports and contributes to the acquisition of these competencies.
- Part of the periodic review of all GEC courses by the relevant faculty panels should include a determination as to whether GEC courses are indeed contributing to the inculcation of these competencies and what strategies the offering unit is developing to ensure that they do.
- An outcome assessment strategy needs to be developed to determine whether students are acquiring these competencies (see Ancillary Recommendation 13.)

The last of these points deserves further elaboration: The GEC overall and each category within it has clearly specified “goals.” In the decade since the GEC was established, however, there has not been a concerted effort, institutionally, to assess in detail the “learning outcomes” associated with these goals. Initial planning for such an effort occurred in 1999 but has yet to be implemented.

Nationally, at institutions of varying missions and sizes, there is currently widespread dialogue about what students should know and be able to do as a result of the general education component of the curriculum. There is a need to specify learning outcomes, develop appropriate methods of outcomes assessment, and use the information derived from such assessment for continuous curricular improvement. All regional accrediting agencies are identifying outcomes assessment as an important component of the re-accreditation process. Indeed the Higher Learning Commission of the North Central Association of Colleges and Schools (NCA), the accrediting body for this University, is in the process of changing its criteria for accreditation with clear expectations of outcomes assessment across the curriculum. The University is scheduled for a re-accreditation site visit in 2007.

Given these considerations, the Committee recommends that the GEC Oversight Committee (see Ancillary Recommendation 13) immediately initiate a process to address formally the issue of learning outcomes assessment in the GEC. Since versions of the GEC

extend across all undergraduate colleges, this process will need to involve representatives from academic colleges throughout the university,. Further, any new process needs to take into account the professional and health sciences colleges where outcomes assessment is already well established as mandated by their individual accrediting agencies.

II. Coursework Requirements

In each instance where the text below requires a given number of credit hours, we expect that the current system of course lists constraining the coursework from which those hours may be drawn will continue to exist. The Committee stands by the Arts and Sciences Curriculum Committee Panel Guidelines and, unless otherwise stated, expects that the principles governing inclusion on the GEC course lists will remain unchanged.

1. Writing: This requirement has three components.

- a) **First Course:** English 110 or equivalent (including EM credit)
- b) **Second Course:** Five hours
- c) **Third Course:** Five hours. The course(s) that meet this requirement may be taken either as part of the major or outside the major

Cogent, written expression is a necessity for the literate citizen. As Kantner puts it, “strengthening students’ writing . . . abilities is a *sine qua non* of any self-respecting college” (125). These three levels and the different kinds of writing experiences that take place within them will significantly strengthen a skill without which graduates’ lives are impoverished and their success in the world in serious doubt. An indication of the importance of good writing skills is the fact that all four post-undergraduate entrance examinations – the GRE, the GMAT, the LSAT, and the MCAT – now incorporate writing assessments. Moreover, both faculty and students throughout UCRC’s extensive consultation (see “Consultation”) in overwhelming numbers acknowledged the need for more extensive training in this vital area. Thus we concur with the current GEC in its position that all students should take three writing courses (except those who are exempted from the first course). While some of the respondents to the Draft Report expressed concern about the inclusion of a third-writing course because it would lengthen their already extensive major programs, the experience of several colleges outside Arts and Sciences (for instance, Engineering and Food, Agricultural, and Environmental Sciences) demonstrates that a third writing course can be integrated into a major without diminishing the rigor of the major or raising the credit hours required by the major.

It is currently the case that students entering the University with EM credit for English 110 (usually from an Advanced Placement test) are not excused from the First Writing requirement, but must instead take another course to satisfy it (in the past, this was English H167; when this course is not offered, students are placed into courses such as English 367 which then also counts as their Second Writing course). This is an idiosyncratic treatment of EM credit not found anywhere else in the GEC, and we recommend it be dropped; as a result, students with EM credit for English 110 would be considered to have satisfied the First Writing requirement.

The committee lauds the University’s commitment to developing strong writing skills for its students. However, our consultations on this issue have shown that there is a high degree of variability in the requirements of the second writing courses. We therefore

recommend that the Arts and Sciences Curriculum Committee Panel on Writing consider the following options for second writing oversight:

- establishing a 367 coordinator
- conducting a rigorous course review of all 367 courses (perhaps on a staggered basis) involving classroom visits, interviews with instructors, examination of student evaluations, and other forms of detailed scrutiny
- ascertaining the extent to which writing *per se* is taught in the second and third writing courses and ensuring that this is indeed a major component of such offerings
- investigating and developing a mechanism for “decertifying” courses that no longer meet the goals of the requirement

2. Quantitative and Logical Skills: This requirement has three components; the courses chosen to satisfy requirements (b) and (c) must total at least nine hours.

- a) Basic Computational Skills:** Mathematics Placement Level R or higher, or completion of Mathematics 075 (credit hours earned for Mathematics 075 do not count toward the minimum required for the degree)
- b) Mathematical and Logical Analysis:** For the BA, Mathematics Placement Level L or one approved course; for the BS, Mathematics 151 and 152
- c) Data Analysis:** For the BA, one approved course; for the BS, this requirement is met in the major.

(Because of some confusion about this requirement on the part of some readers of the Draft Report, the Committee has re-examined this recommendation and consulted with Professor Bostwick Wyman and Ms. Judith Monson of the Mathematics Department as to placement levels and their appropriate equivalencies. The following recommendation has their approval.)

This requirement is intended, in keeping with our Goals, to help students “understand, evaluate, and present quantitative data and symbolic terms.” Courses in this category provide a focus on critical thinking, problem-solving, and the applications of mathematics in everyday life. Mathematics 116 has recently been reformulated to provide a focus on these topics and thus serves as an exemplar of the courses that would appear on the list.

UCRC also concurs with the Special Committee for Undergraduate Curriculum Review in the Arts and Sciences as to the merits of a separate Data Analysis requirement. As an example, Statistics 135 is a course explicitly created for the GEC requirement in data analysis; it is undergoing dramatic revision through its division into learning modules that permit students to select the approach (lectures, recitations, laboratories, and computers) that best suits their learning styles. This educational approach has been extremely successful for students and has received a quite positive response nationally as well.

Some respondents to the Draft version of this report suggested that the rigor of the data analysis provision in some (unspecified) BS majors may be declining. As a result, we recommend that each BS major be required to document the course(s) in their curriculum that have been designed to meet this requirement (thereby avoiding the problems that an “it’s in the major somewhere” argument entails) and that the curricular panel for Data Analysis review such documentation on a regular basis.

3. Foreign Language: proficiency at the level of completion of 104.

This requirement serves a multitude of functions. First, it is fundamental to OSU graduates' ability to function in our increasingly global society. As the Academic Plan asserts: "America is becoming much more global and diverse, requiring employees with greater knowledge of other countries and cultures along with greater language capabilities" (8). Familiarity with a foreign language provides one of the basic competencies that allow students access to other cultures. Second, it fosters an appreciation of difference that enhances student coursework in Diversity and throughout the GEC. Third, when students are presented with the assumptions and values of another culture, they are challenged to reassess their own and to engage in a critical examination of the world in which they live as well as their own value systems. Fourth, it invites, through analysis and comparison, rich opportunities for deepening students' awareness and knowledge of the grammar, syntax, and diction of their native language and thereby improves their oral and writing skills. Fifth, it fosters the development of analytical skills that carry over into many other disciplines. And finally, it promotes an awareness of the inter-relatedness of language and culture.

It should be noted that our foreign language requirement is very much in line with that of our comparison universities (see Appendix D). In fact, of our nine benchmark institutions four (Illinois, Wisconsin, Michigan, and Minnesota) require as much or more foreign language proficiency as OSU; two (UCLA and Washington) require less; one (Arizona) requires two full years but only for BA recipients; one (Texas) requires second semester proficiency (i.e. three quarters) for BS students and fourth semester proficiency for BA students; and one (Penn State) requires third semester proficiency but only for BA students.

4. Natural Science: twenty hours of coursework (twenty-five for BS programs) chosen so as to include study in both the biological and physical sciences and to include a cluster. At least one course taken to satisfy this requirement must be a laboratory course.

This requirement introduces students, through coursework and laboratory work, to scientific methods and to the functioning of the physical world and the universe. Good citizenship requires the ability to make informed judgments about the uses of science and technology, and this ability is dependent upon scientific literacy. Scientific education gives students the ability to solve complex problems, to use scientific methods to study problems facing society, and to access, evaluate, and utilize information. This requirement, in keeping with our Goals, promotes knowledge about the world and universe and our connection to them. It is only through an appreciation of both the physical and biological sciences that students can begin to understand the power of scientific approaches to build a better world.

5. Humanities and Visual and Performing Arts: fifteen hours of coursework, including at least one course in "Literature", one course in "Visual and Performing Arts", and one course from either of the two previous categories or the "Cultures and Ideas" category.

This is the academic area in which our students are often least prepared when they come to the University. Therefore, it is incumbent upon faculty to familiarize them with the landmarks of human achievement in art, literature, and humanities-based inquiry. It is furthermore one of the areas of knowledge and experience that most directly affects the quality of life students have after they leave OSU and it is this area perhaps more than any other that asks such "big questions" as "What is 'reality'?", "What does it mean to be

human?,” “What is human subjectivity and/or its constituent parts?,” “Why does humanity need art?,” “How do cultures use it?,” and “What are humanity and culture and what can they be?” In our view, students’ confrontation with these issues is central to a quality education.

The Humanities and Visual and Performing Arts requirement, in contrast to other requirements, is not subject to clustering because, in our view, this requirement is grounded precisely in the necessity to expose students to the breadth within these disciplines.

6. Social Sciences: Individuals, Society, and Institutions: fifteen hours of coursework (from at least two departments) including one two-course cluster.

In accordance with our Goals, this requirement strives to inculcate in our students an understanding of the pluralistic nature of societies, the impact of societal institutions upon individuals, and the ways in which individuals and groups shape their societies. Along with the historical survey requirement outlined below, coursework in this area helps students understand the range of cultural traditions and institutional forces that have formed and informed our nation. The disciplines that contribute courses to this requirement each have a different perspective on the contemporary world: some focusing on individuals, others on the institutions they construct or their management of resources, and still others on their social groupings. For this reason we recommend requiring that at least two different departments be represented in courses chosen to satisfy this requirement.

7. Historical Survey: ten hours of coursework, including one two-course cluster.

Through the study of history, students are introduced to the past and its people, and they are encouraged to develop an awareness of times and cultures different from their own. Such knowledge is critical for an appreciation of what is unique about the modern world, and it offers unparalleled opportunities for understanding the present. An awareness of the past also allows current problems and issues to be placed in their larger historical context, thus providing invaluable and necessary insights into the origins and nature of contemporary matters of concern. Finally, the study of history encourages critical thinking about research, the uses of evidence and representations of the past, thus enhancing students’ analytical abilities.

8. Diversity: fifteen hours of coursework. The courses taken to satisfy this requirement may double-count with other GEC requirements; they must meet the following distribution:

- a) **Social Diversity in the United States:** One course
- b) **International Issues:** Two courses, one of which must focus on non-western or global issues.

(The respondents to the Draft Report overwhelmingly endorsed retaining the “non-western” requirement which the Committee, in order to impart more flexibility to the curriculum, initially recommended be deleted.)

Because all students live in cultures marked by increasing diversity and our own students live in one characterized by, at times, seemingly irresolvable racial conflict, the University, as part of its project of training better citizens, has a necessary commitment to enlightening students as to the bases for and ongoing manifestations of diversity. Furthermore, we agree with the Academic Plan in its conviction that one of the core elements of a truly great university must be the valuing of diversity.

We also endorse the current practice of requiring all Social Diversity courses to address all three aspects of diversity currently required: race, social class, and gender issues. The wealth of study in this area documents that studying any of these issues without reference to the others tends to lead to an incomplete understanding of the issues at stake.

9. Capstone Experience: five hours of coursework. The capstone is a faculty-taught course ideally limited to forty students. It further features a significant writing component. Students should have junior or senior standing to enroll. (This requirement is limited to students in BA programs.)

A capstone course focuses on contemporary issues of broad significance, usually in an interdisciplinary manner and from a global perspective. The goal of this course is to provide students with a small, faculty-led course in their last few quarters and an in-depth learning experience. Students can be expected to have completed most of their GEC requirements and can thus benefit from a course that addresses a variety of issues that may have arisen in other GEC courses. The capstone experience should be the culmination of a student's work in the GEC, embodying the interconnection of a variety of disciplines in the study of important contemporary issues.

The capstone is an especially important course in the GEC for several other reasons – both pragmatic and principled:

- *US News and World Report* has begun using the presence of senior capstones in institutions' curricula as a factor in their ranking system.
- The capstone is one of the very few GEC courses in which students are assured of having a faculty instructor. It is vital that students have the benefit of faculty expertise and the opportunity to participate in a discussion-based class led by a faculty member in their GEC coursework. The offering of more faculty-led courses is also a frequently articulated desideratum from students and their Undergraduate Student Government. It is worth noting in this connection that during the academic year Summer 2001 through Spring 2002, only 12.81% of GEC courses had fewer than thirty students and also were taught by faculty (Office of the University Registrar). Presumably many of these are honors courses, indicating that non-honors students have almost no access to such classes.
- An article in the *Columbus Dispatch* earlier this year ranked OSU lowest among all Ohio institutions of higher education in the percentage of classes taught by faculty. While there are, of course, extenuating circumstances concerning these data (for instance, OSU, as a part of its missions as a research institution, has an obligation to train graduate students to teach), it is the conviction of the Committee that the connection between faculty and undergraduate students must be strengthened and that the capstone course is one of the most appropriate places for this to occur.

We are not recommending that the capstone be required of BS students. This arises not from any academic consideration, but rather from an acknowledgement of the length of some BS programs. We therefore strongly encourage all BS programs to work toward addressing the goals of this requirement (as described in the Arts and Sciences Curriculum Committee Guidelines) in their major coursework, especially courses whose content have global ramifications and interdisciplinary pedagogical perspectives. Similarly, to facilitate

BS students' ability to take capstone courses on an optional basis, we would expect that any capstone course that counts toward a department's major be also open to non-majors.

G. Further Curricular Recommendations

1. The Drop-a-GEC Course Option

Students in five BS programs (Astronomy, Chemistry, Computer and Information Science, Geological Sciences, Physics) are exempted from five hours of the current GEC as long as certain requirements are met – this is referred to as the “Drop-a-GEC Course Option.” Several respondents to our Draft Report asked whether we supported keeping this option. In general, we believe that this option is at odds with the spirit of the current GEC: the GEC exists in part to guarantee a breadth of experience for each student. Allowing a student to decide where they need less breadth is therefore contrary to the principles of the GEC.

We nevertheless acknowledge that this option cannot simply be dropped without addressing the underlying problem, and to do so would require in-depth examination of the majors in question. We are therefore not recommending any changes to the Drop-a-GEC Course Option at this time.

2. Ethics and Professional Responsibility

In the increasingly complicated world in which we live, it is becoming more and more important for students to have the chance to think systematically about ethics and the role it plays in their everyday lives. This is already a strong component of the Engineering curriculum, as well as various Medicine and Public Health and Business curricula. The Committee believes it is important to make this a central requirement for all students. But because we did not have adequate time to discuss the issue (the Committee was laboring under an April 1 deadline), we are referring this matter to the Arts and Sciences Curriculum Committee for further study with an eye towards their making a series of recommendations as to how this important initiative might be incorporated into the curriculum for all OSU undergraduates.

However, as a starting point, we are of the view that the notion of “professional responsibility” can vary from major to major and suggest; this requirement is therefore best addressed in each major. We envision several ways this can be done:

- developing course(s) in the major that directly address ethics,
- inserting ethical issues and discussions into existing courses, and
- requiring students to take an existing course on these issues from another department (for instance, Philosophy 130 “Introduction to Ethics” or one of the “Values, Science, and Technology” courses offered by Comparative Studies).

3. Technology

A question arose in the feedback from the College of Engineering Curriculum Committee as to the apparent incompatibility between our statement in the “Goals of a General Education” that students should “...understand the interactions among science, technology, the universe,

the individual, and society” and the dearth of coursework in the proposed GEC to address the matter.

The Committee discussed this issue at length and concurred with a report jointly issued by the National Academy of Engineering and the National Council Center for Education that defines a technologically-literate citizen as one who:

- recognizes the pervasiveness of technology in everyday life,
- knows some of the ways technology shapes human history and people shape technology,
- knows that all technologies entail risk, some that can be anticipated and others that cannot,
- understands that technology reflects the values and culture of society,
- asks pertinent questions, of self and others, regarding the benefits and risks of technologies,
- seeks information about new technologies,
- has a range of hands-on technological skills, and
- can apply basic principles of mathematical concepts related to probability, scale, and estimation to make informed judgments about technological risks and benefits.

UCRC is of the view that these are worthwhile goals that warrant the inclusion of technology (and not merely computer literacy) in the GEC. However, because this idea arose so late in our discussions and because we felt that further study was warranted as to how this might be integrated into the curriculum, we are referring the matter to the Council on Academic Affairs and request that they conduct a study and make recommendations on this important issue.

4. Freshman Seminars

UCRC recommends that, if funding is available and such courses do not constitute a teaching overload for faculty, the University offer first-year students small faculty-taught seminars. These seminars, each enrolling no more than 25 students, would participate informally rather than formally in the GEC, allowing new students to discover the intellectual life of the campus through exposure to the broad spectrum of knowledge and research embodied in the faculty. They would anticipate and mirror the capstone experience, providing special opportunities for faculty contact early in the university experience. Peer universities such as the University of Texas and UCLA have successfully instituted such seminars. While we view such offerings as innovative and potentially very valuable educational experiences for new students, these courses could also have a pragmatic impact: national university rankings (such as those in *US News and World Report*) include the availability of such offerings in their assessment criteria.

H. GEC/Major Overlap

To further emphasize the link between the major and the GEC, we recommend the following policy: ASC Major programs may petition the Arts and Sciences Curriculum Committee to have their students exempted from one or more GEC requirements on the grounds that equivalent

coursework (that is, coursework meeting the same goals at an equal or higher level of rigor) is done as part of the major. Each curricular panel has the responsibility of reviewing equivalence requests in its area, and these decisions would be regularly reviewed by those panels on the same schedule as the courses in that area.

I. The Size of the Recommended Curriculum

As the feedback from the university community abundantly demonstrates (see Appendix F: “Summary of Feedback to the Draft GEC Report From the University Community”), The colleges, departments, Senate committees, and faculty overwhelmingly support the current GEC, specifically in terms of its length, breadth, and structure. There was almost no feedback that suggested shortening the curriculum to below 98 credit hours. In part because of the statements in the Academic Plan on this matter but also because UCRC had been informed by former President Kirwan and the Office of Academic Affairs that a shorter GEC was desirable, the Committee recommended reducing the overall credit hours in the GEC from 105 to 98 (for BA and most BS degrees) by

- allowing 3- and 4-credit courses to count towards it and
- creating an option whereby students could choose between the capstone and the third writing course.

Both these suggestions were resoundingly opposed. Furthermore, a number of respondents specifically noted their gratitude for the Committee’s extensive research into both how the GEC is configured in different programs at OSU and how it compares to general education curricula at comparable institutions, the latter of which clearly demonstrates that OSU’s GEC is in line with those of our peer institutions (there has been wide-spread misunderstanding on this issue).

Undergraduate Student Government, however, has consistently maintained the need for a shorter GEC. UCRC specifically asked USG on several occasions for an academic rationale for this position and in what category it would like to see those cuts occur but that information was not provided.

It should also be noted that the preparation a student brings from high school has an important impact on the size of the GEC for that student. For instance, in Autumn Quarter 2001, under 3% of entering freshmen did not receive any foreign language proficiency credit and in Autumn Quarter 2000, that figure was also under 3% (Office of Enrollment Management). Since only 54% of these students will go on to pursue Arts and Sciences degrees, we can assume that approximately 1.62% of entering students must fulfill the full 20-hour foreign language requirement. (These data do not include students who decide to abandon the language in which they receive one or more quarters of proficiency credit and start anew with another or those who choose to fulfill their requirement with another less-frequently taught language that was not available in high school.)

An illustrative example of the effect high school preparation has on GEC requirements is the following: students who arrive with five credits of Quantitative Reasoning proficiency and ten credits of Foreign Language proficiency have a GEC of 90 hours rather than 105. If a student’s preparation in these two areas were even more extensive – 104-level foreign language proficiency, Mathematics Placement Level L, and placement credit for English 110, he or she would only need ten credits in the Writing and Related Skills category resulting in a 75-credit hour GEC. Given the better high school preparation we should expect as a result of OSU's

competitive admissions policy, the Recommended Curriculum should result in a GEC that will be in the range of 80-90 credit hours before colleges outside the Arts and Sciences have deleted the additional ten credits of foreign language assumed in the example above and otherwise negotiated their separate GECs.

The size of the recommended GEC also reflects the fact that Ohio is tied with Alabama for the rank of 41st in the US in the “Smartest State” competition conducted by the Morgan Quinto Press, a ranking that is based upon test scores, high school graduation rates, class sizes, and student-teacher ratios. While one may quibble with the particular ranking Ohio received, it nonetheless suggests that Ohio high school graduates do not come to college or university with the level of preparation that they do in most other states. UCRC is of the conviction that OSU has an obligation not to merely pass our students through their four or more years but rather to remedy these educational deficits through a rigorous and appropriately extensive curriculum.

We should add that some students’ rationale for wanting a shorter GEC is based on their belief that it hinders them in their pursuit of timely graduation. But as chapter VI on “Time to Degree” demonstrates, extensive research and multiple surveys have demonstrated that this is in fact not the case.

J. The Flexibility of the Recommended Curriculum

A number of the groups with whom we consulted suggested that the GEC needs to be more flexible and it was to this issue of flexibility that many of the recommendations in the Draft GEC Report were addressed. Although many students, central administration, and a small minority of faculty and advisors called for more flexibility in the GEC, the feedback clearly indicates that the university community as a whole is unwilling to impart that flexibility to the curriculum if doing so entails altering its length, breadth, and/or structure.

Furthermore, several of the Committee’s recommendations to impart both more coherence and more flexibility to the curriculum were, generally speaking, endorsed in principle in the feedback, but concerns were expressed about their implementation: to wit, the development of “clusters” and the inculcation of a series of “embedded competencies.” Throughout UCRC’s deliberations, it was the committee’s understanding that we would make academic recommendations, the implementation of which would lie elsewhere—in the hands of, as appropriate, the Arts and Sciences Faculty Senate, the Arts and Sciences Curriculum Committee, the faculty of the individual colleges outside the Arts and Sciences, and the Council on Academic Affairs. Some of the Ancillary Recommendations would, of course, have to go to the various administrative offices and Senate committees for implementation. In order, however, to address the request for implementation strategies, this Final Report includes details as to how these two initiatives might be realized in practice.

Nonetheless, certain of UCRC’s recommendations continue to enhance the flexibility of the curriculum. For instance:

- The augmenting of sequences with clusters encourages flexibility insofar as it promotes new intellectual and/or interdisciplinary synergies for students to choose among. The educational benefits derived from clustering should more than outweigh any potential inconvenience that this change might cause. Rather clustering should enhance students’ educational experience by providing an opportunity to investigate the same or related subject matters on an introductory level and on a higher level thus requiring them to exercise more in-depth thinking and critical skills in an area with which they already have

some familiarity and interest. In addition, the introduction of non-prerequisite-based clusters (where appropriate) will make scheduling easier for students.

- The addition of the overlap policy in (H) will enhance the flexibility of the curriculum by reducing the size of the GEC in those areas where it overlaps the major (that is, precisely where students have had more constrained choices).
- Almost all of the “Ancillary Recommendations” are designed to make it easier for students to navigate their way through their curricula. Implementation of the recommendations on scheduling, course delivery, increased course offerings, and improved advising should result in much greater flexibility for students and thus increase their ability to graduate in a timely manner.
- The implementation of Ancillary Recommendation 10, along with the “Revised GEC Course List” will provide students with more accurate information as to which courses “count” for various GECs, which, in turn, will allow students to make more informed choices from a more extensive list.

K. The Cost of the Recommended Curriculum

UCRC considers it vital to the quality of OSU’s undergraduate educational mission for the President, the Executive Vice President and Provost, the Senior Vice President for Finance and Business, the Vice Provost and Dean for Undergraduate Studies, and the Vice Provost for Curriculum and Institutional Relations, along with the entirety of the University’s almost 3,000 faculty and approximately 48,200 undergraduate students to support the full implementation the third writing course and more extensive development of the capstone offerings.

Writing courses are the courses that both faculty and students tell us time and again (see “Consultation”) are among the most valuable and important courses of their University careers. For instance, the student focus groups consistently maintained that writing was one of, if not the most, important of the GEC requirements (11/7/01, 11/9/01a, 11/09/01b, 11/13/01, 11/14/01, 11/16/01, 10/29/02). Typical are the following statements from the student focus group summaries: “In general increase courses involving writing. . . . [Students said they] need more classes to provide communications skills” (11/09/01), “All said writing courses were the most important GEC” (11/13/01), “[that] writing is the most important GEC seemed to be the consensus of the group” (11/14/01), and “Most students at the 10/29/02 consultation thought the writing courses were very important.” The faculty both in the fora and in the meeting with the GEC instructors repeatedly and emphatically spoke of the poor writing skills of our students and the need for increasing training in this essential skill.

UCRC anticipates that the implementation of the third writing course in BS programs can be achieved through incorporating appropriate writing requirements into already existing courses in the major. “Appropriate” would, of course, be defined by the Arts and Sciences Curriculum Committee panel that has purview over writing courses. BS programs could consult with the Colleges of Engineering and of Food, Agricultural, and Environmental Sciences for advice as to how they have integrated such courses into their curricula.

The development of more capstones is also essential since they represent the culmination of a student’s GEC work, embodying the interconnection of various disciplines in the study of important contemporary issues. Furthermore the capstone is the only GEC course (and potentially the only course at all) in students’ programs that mandates interdisciplinarity. It is

also the only GEC course in which students are assured of a faculty-led learning experience in an environment that promotes discussion and close faculty/student interaction.

Because the non-adoption of the capstone and third writing requirements of the original ASC GEC can probably be attributed to insufficient funding (since the ASC BS adheres in virtually every other respect, excepting of course the “Drop-a-GEC-Course-Option” which was instituted for quite different reasons, to the ASC BA model), additional funding may be required to implement this recommendation.

(Here we would note that, according to the associate dean of curriculum in the College of Social and Behavioral Sciences, capstones (at least in his college) can be offered at a “break even” revenue point when they are taught by instructors and assistant professors. Thus the infusion of funds necessary to offer more such courses and to assign them to additional senior faculty should not be prohibitive).

Thus UCRC respectfully calls upon the Office of Academic Affairs to provide central funding and/or sufficient fiscal incentives to individual units to ensure full implementation of the third writing course and the development of enough capstone offerings for ASC BA students to have real choices in fulfilling this requirement (at the moment there are enough capstone seats to accommodate BA students, but they often cannot get into the courses of their choice). This call is justified by the academic rationale adduced above and by the following observations:

- re third writing: There is virtual unanimity among the many faculty and students with whom UCRC consulted that our undergraduates need a full three courses of writing instruction.
- re the capstone: The advisors with whom UCRC spoke and the students overwhelmingly held that smaller classes are of consistently higher quality than larger ones.
- Students (Undergraduate Student Government as a whole as well as the students whom we interviewed) agree with this view. Indeed one of USG’s major policy initiatives this year centers on increased faculty-student interaction and the role of class size in that interaction.
- The GEC is an absolutely central academic commitment from the institution as whole to its undergraduate students and not a unit- specific one.

As to how such funds might be made available, we note the following as but three of many potential implementation strategies:

- (as former President Edward Jennings has endorsed) targeting this initiative for Selective Investment funding. One can think of few more worthy recipients of SI than an initiative to ensure that OSU graduates better educated men and women,
- (as Senior Vice President Bill Shkurti has suggested) folding this initiative in with the special central funding for Honors programs.

We therefore request that the Office of Academic Affairs commit itself to full ASC-wide implementation of the third writing course and to assuring that enough faculty-taught capstones are offered to accommodate all ASC BA students more adequately. Only through a commitment on the part of central administration to these essential parts of the GEC can OSU fulfill its responsibility to its undergraduate educational mission.

V. Ancillary Recommendations

As a result of our investigations, we find it desirable to make certain recommendations outside the direct scope of the curriculum itself. These recommendations concern the perception of the GEC within the University community, the delivery of GEC courses, the GEC course approval process, the advising process, the relationship between the GEC and the honors program, and the need for GEC oversight and outcomes assessment. The last of these issues recommends the establishment of an oversight body for the GEC. Such a body is especially important as our consultations repeatedly revealed the need for periodic and continuing review of the GEC, a quality-control mechanism for safeguarding the integrity of the GEC and its offerings, and outcomes assessment, a task far too extensive for the Council on Academic Affairs or the Arts and Sciences Curriculum Committee alone to undertake.

The Ancillary Recommendations received nearly unanimous support in the feedback except for (now) number 13—the recommendation for the establishment of a permanent university-wide GEC oversight committee. Here the voices from the Arts and Sciences held that this authority should lie within Arts and Sciences. Those from outside the Arts and Sciences tended not to share that view. Thus this Final Report includes a detailed rationale as to why UCRC reaffirms its support for the establishment of such a committee.

The Committee's revised ancillary recommendations follow. For our suggestions for implementation strategies, please see the cover letter.

Correcting Perceptions of the GEC within the University Community

1) Address inaccurate perceptions about general education in general and the GEC in particular.

We endorse the report of the Special Committee for Undergraduate Curriculum Review in the Arts and Sciences report in its conviction that “Understanding the rationale of the requirements for a degree is as important for a student as understanding the goals and expectations of the individual courses.” Because of misunderstandings on the part of many students as to the role of general education within a university curriculum, we believe there is a public relations problem that still needs to be addressed. We recommend that a University-wide effort be undertaken to educate faculty, staff, and students about the nature and purpose of the GEC. As but one component of this effort, we recommend that each GEC course syllabus include a brief explanation of the general nature of the GEC and how the course in question supports the goals both of the category to which it belongs and the GEC in general.

2) Publicize the GEC petition process.

While currently all students may petition for a waiver or for a substitution of a GEC requirement, there is a pervasive misconception among students and faculty that either no such process exists, or that it is restricted to Honors students. We recommend that this process be clarified and publicized. We also recommend that students be encouraged to substitute upper-level courses for lower-level ones, where appropriate.

Course Delivery

3) Include more GEC courses as a part of faculty teaching responsibilities and continue to improve Graduate Teaching Associate teaching.

The Committee makes this recommendation in full awareness of the problems that an increase in faculty-taught courses poses in a Budget Restructuring environment, aware also that, as a research institution part of whose job is to train future academics, it is incumbent on OSU to train GTAs not only in their disciplines but also in how to teach. This recommendation echoes the recommendations of the recent task force on this matter. It is the hope of the Committee that the Office of Academic Affairs will actively and tangibly support this important initiative.

4) Offer more sections of oversubscribed GEC courses.

We support the continued efforts of OAA to alleviate the problem of over-subscribed courses.

5) Increase the variety of time of course offerings across the academic day.

In some pre-professional programs and certain majors, students find it quite difficult to schedule GEC courses among their major courses. We encourage departments wherever possible to offer more sections of their GEC courses in the late afternoon and evening. The implementation of this recommendation will, we suspect, not be overly burdensome since most students still continue to want their classes during the most popular hours. While we acknowledge the influence of market forces on decisions regarding time of offerings, we also believe that the fulfillment of the University's educational mission must not be sacrificed to fiscal considerations.

Process

6) Improve the GEC course approval process.

In the course of our deliberations, we heard several complaints about the nature of the current approval process: the process is quite slow, often gets delayed on issues seen as trivial, and is often quite inconsistent from one year to the next. While we support a strong and thorough course approval process, this process must at the same time remain efficient and constructive. More specifically, the existing GEC course review procedures require a course to be reviewed at several levels, beginning with the department and college curriculum committees, then the appropriate panel of the Arts and Sciences Curriculum Committee, the whole Arts and Sciences Curriculum Committee, and finally the Council on Academic Affairs. Because of the heavy workload of the Arts and Sciences Curriculum Committee, sometimes it is not able to act on proposals as quickly as it would like.

Thus we recommend that the GEC course review procedures (as above) be amended to permit a preliminary review of a course by the appropriate Arts and Sciences Curriculum Committee panel even if the course is still under review in the proposing unit's college. This added stage would be similar to the stage of the current approval process for courses bearing the

Honors designation, in which courses can be reviewed by the Arts and Sciences Honors Committee at the same time they are being reviewed by the proposing unit's college curriculum committee. This effort at parallel processing will help achieve efficiency without compromising quality control.

7) Encourage the addition of upper-level courses to the GEC lists.

It is essential that more upper-level courses appear on the GEC lists. We strongly believe that the GEC needs to be integrated across all four years of the curriculum and that students ought to be able to choose a course appropriate to their level of maturity—seniors should not be forced to choose a freshman-level course to satisfy their last requirements. To best serve this goal, such upper-level courses should have few prerequisites (beyond writing skills or class standing).

Advising

8) Develop a web-based tool to help students navigate the GEC.

This tool should contain information about GEC requirements appropriate for their individual colleges and/or majors and about GEC petition, substitution, and equivalency policies and procedures and should provide access to detailed descriptions and prerequisite lists for each course on the individual GEC lists and to “The Revised GEC Course List.” In addition, anticipated quarters (and, if available, times) of future offerings should be included. The net result would be a tool with which students or advisors could provide constraints (for instance, “diversity courses that meet Tuesday/Thursday afternoons”) and see a list of the courses that meet those criteria.

While most of this information is already available online, it is scattered over a wide variety of websites; similarly, the quality of the information available can vary quite widely across colleges. In our focus groups, students often complained about the quality of the information available about the GEC; providing this kind of tool to both students and their advisors should greatly ameliorate this concern.

9) Identify and publicize advising “best practices.”

While great advances have been made in the quality of advising in recent years, it is still clear that such quality varies widely across campus. Collecting “best practices” from each unit and publicizing them could help raise the overall level of advising quality. We recommend that USAS should establish a committee to develop ways of enhancing and publicizing such practices. The sharing of such information is invaluable to the effectiveness of our advising enterprise; indeed, because of the size of our institution, the sharing that can take place so much more easily at smaller colleges and universities needs here to be codified, clearly delineated, and widely distributed.

10) Develop more effective ways of communicating GEC requirements to students.

Students and advisors often complain that the available GEC course lists, with their

“diamonds and stars,” are hard to read and understand. While this was often phrased as a criticism of the double-counting mechanism, UCRC is of the conviction that double-counting is too effective a type of requirement for mere problems of presentation to dictate the discarding of this system. We therefore recommend that those publishing such course lists consult with the University's own specialists in visual/graphic presentation, namely the Department of Industrial, Interior, and Visual Communications Design, to solve this problem.

We additionally recommend that Orientation and advising sessions with both faculty advisors and college/USAS advisors should repeatedly include explicit information on

- what precisely what students need to do to graduate on a timely schedule. USG has suggested that all students should receive a sheet titled “What You Need To Do To Graduate.” Such materials could include (or refer students to) major requirements, GEC requirements, and the number of credit hours per term required to graduate in a timely fashion,
- what average number of credit hours per quarter must be taken for timely graduation,
- the fact that while 12 credit hours per term constitutes full-time status for financial purposes, students need to take an average of 16 hours per term in order to graduate in four years,
- the likely ramifications for time to degree if students are employed more than 20 hours per week (see Appendix E),
- the fact that that different majors have different GECs and that students should choose their GEC courses accordingly,
- that certain majors have enrollment management plans (which the advisor would distribute as required) that will help them in selecting and arranging their courses across their academic careers, and
- the fact that it is in students’ best interest to seek the counsel of their advisors on a regular basis.

Faculty advisors should also be encouraged to direct students to USAS or college advisors for advice about the GEC. (Again, see the cover letter to this Report for recommended implementation strategies.)

11) Urge the University to continue to explore a four-year graduation plan.

We support the work of Arts and Sciences and other colleges to develop curriculum and advising plans that will facilitate undergraduates completing their degrees in four years. We further encourage continued collaboration with the Undergraduate Student Government to explore other initiatives, such as a four-year plan on the model of Indiana University or University of Iowa, that will maximize students’ opportunities to graduate in a timely manner.

12) Continue to allow Honors students flexibility in meeting GEC requirements.

We recommend that Honors students be required to satisfy all the individual requirements in the proposed curriculum. However, we concur with the recommendations made by Honors Advising faculty and staff that students be allowed flexibility in the selection of courses to fulfill the spirit of these individual requirements. Because Honors students must have their program selections approved by an advisor who carefully reviews their schedules, we recommend that

they continue to be given the freedom to go outside an approved list of courses if necessary in order to explore other intellectual opportunities.

Oversight

13) Establish a permanent oversight committee for the GEC.

The final Ancillary in the Draft Report recommended establishing a permanent oversight committee for the GEC. Such a committee would serve as a locus for outcomes assessment and obviate the need to an ad hoc committee to be established every five to seven years. The feedback we received on this recommendation indicated that, in general, the Arts and Sciences faculty, curriculum committees, and Deans, and the ASC Curriculum Committee were of the view that this activity should remain within ASC. Three of the five college curriculum committees did acknowledge that the ASC CC needs to be reconfigured or “fixed” before it could undertake this work. One ASC college curriculum committee did not take a position as to where this authority should lie. Those from outside ASC supported the notion of an independent oversight committee.

UCRC is of the view that such an oversight committee is warranted and that it should be established as a committee of CAA because of the following:

1. For the periodic review of the GEC, it is entirely too time-consuming for ad hoc committees to spend a year or more mastering the details of the current GEC, the history of its genesis and modifications, how it is implemented and functions from the perspective of students, faculty, advisors, and administrators, what the perceived and real problems with it are, and the overwhelming body of data surrounding it and then debating and discussing all these matters before it can actually begin to make recommendations.
2. There is an increasing need for a mechanism for outcomes assessment for the General Education Curriculum, a need long acknowledged by the Office of Academic Affairs.
3. The current system of GEC review has not been successful at monitoring and preventing “curriculum drift.”
4. Since academic tradition at OSU, practice at virtually every major academic institution in the country, and University Rules mandate that the faculty are responsible for writing the curriculum, an oversight committee is needed that is independent of any administrator or administrative body and is instead embedded in the structure of the University Senate.
5. Central administration, students, and advisors have a vested interest in the curriculum and should be represented on any oversight committee.
6. The Arts and Sciences disciplines should have a majority voice in the oversight process, but the other colleges, because their students constitute approximately half of the University’s graduates, should also have permanent voting rights in that body.
7. Approval of GEC courses and categories should remain in the Arts and Sciences Curriculum Committee and its panels because general education and the GEC in particular are oriented toward students’ exposure to the arts and sciences. ASC has the faculty with most expertise in this area and they are the faculty who teach most of these courses.

8. Per University Rule 3335-5-27 (B), the ASC faculty have and should continue to have jurisdiction over the ASC GEC and colleges outside the Arts and Sciences should continue to have their GECs approved by the Council on Academic Affairs.
9. Approval of majors and changes to majors should remain with the Council on Academic Affairs because it has the University-wide perspective necessary to assess these objectively and to assure that majors are of a size appropriate to their disciplines.
10. Both the Council on Academic Affairs and the Arts and Sciences Curriculum Committee have very heavy workloads that prevent their taking on the responsibilities listed below. (For instance, their workload is so extensive that neither of these two committees was able to deliver their response to the GEC Draft Report until two months or more after the deadline. This comment should in no way be interpreted as a criticism of these extremely hard-working committees but rather as an indication of how overworked they already are.)
11. The whole GEC process has become overly political, with different levels of scrutiny applied to the curricula of ASC and non-ASC units.
12. It is extremely unlikely that Ohio State University will ever not have a general education curriculum the assessment of which is in the best interests of the University, its students, and its educational mission. Such a curriculum might be renamed (to “Core Curriculum,” for example), but such a set of requirements, however defined or modified, will almost surely continue long into the future.

The proposed committee would have the following charge:

- to review the goals, structures, and requirements of the general education curricula at the request of the President, the Office of Academic Affairs, or the University Senate and at a minimum of every seven years and to make recommendations based on those reviews
- to develop in consultation with the Office of Academic Affairs an outcomes assessment mechanism to determine if the current GEC implementations are accomplishing their goals, to put that mechanism into place, and to make appropriate recommendations
- to evaluate as appropriate and necessary the role of the GEC in the University’s time-to-graduation policy
- to make recommendations to the Council on Academic Affairs, the ASC Curriculum Committee, the Arts and Sciences Faculty Senate, and the University Senate as appropriate
- to function as a liaison between the Arts and Sciences Curriculum Committee and the Council on Academic Affairs (the chair of the oversight committee, elected by the membership, would serve as an ex-officio non-voting member on both CAA and the Arts and Sciences Curriculum Committee)

This committee needs to be of a substantial size in order to accomplish its workload. In our view, the faculty membership should be appointed by the Executive Committee of Faculty Council (which makes the vast majority of Senate committee appointments). Two-thirds of the faculty membership should come from the Arts and Sciences. There should also be a student from both Undergraduate Student Government and the Council of Graduate Students. Because they have a vested interest in the curriculum, we also recommend that the committee include two non-voting advisors and a non-voting representative from the Office of Academic Affairs.

The logical reporting body for this committee is the Council on Academic Affairs, which has purview over all the university's curricula. It is important to note that even if the Arts and Sciences Curriculum Committee expanded so that it had more faculty members to deal with the pressure of their workload, points 3, 4, 6, and 11 indicate that it is not the appropriate committee to take on the charge above.

Summary: In addition to the curricular recommendations made in the previous section, it was clear that many other related aspects of the GEC need to be addressed. We hope that the recommendations in this section speak to many of the concerns expressed by faculty, staff and students during the course of our investigations.

VI. Time to Degree

In its charge, the Undergraduate Curriculum Review Committee was asked to examine time to degree, including the question of whether or not the required number of credit hours for graduation should be decreased to 180 in most majors. Based on the information we obtained, described below, we have concluded that it is inadvisable to decrease this number below the current level. In particular, we wish to draw attention to the 1982/83 conclusion of the Arts and Sciences Senate that 196 (since reduced to 191) credit hours were needed to bring our BA degrees in line with those of comparable institutions.

The feedback from the university community on the Draft Report (see Appendix F) clearly demonstrates strong support (with the exception of Undergraduate Student Government and a handful of other parties) for retaining the current credit hour to graduation requirement. The community apparently found the Draft Report's extensive data here and in Appendix E convincing.

A. Studies and Research

A number of statistical studies of the time spent by students to acquire bachelor's degrees were made available to UCRC:

1. Study by the staff of the Colleges of the Arts and Sciences, reported by Dean Robert Arkin to Provost Richard Sisson December 18, 1994. (Appendix E, Item 1). A survey was conducted of 1700 graduates in Spring 1993. The mean number of quarters to degree was 15 and the mean number of accumulated credits was 214. The distribution by quarters was uneven, with a large number finishing in 12 or 13 quarters, another large number in 15 or 16 quarters, and then a considerable number spread out over 17 to 33 quarters. The results of this survey indicate that most students choose to graduate in Spring Quarter no matter how many years they have been at the University. Thus students, for whatever reasons, do not always graduate as quickly as they might, an interpretation borne out by the fact that many students graduate with considerably more credits than required.

2. Transcript analysis done January-February 1995; reported by Dean Robert Arkin to Provost Richard Sisson February 28, 1995. (Appendix E, Item 2). The Colleges of Arts and Sciences staff studied a sample of 40 4-year and 5-year graduates in the College of Social and Behavioral Sciences and the College of Humanities from the previous study. The findings were that 4-year graduates completed an average of 40.90 courses and the 5-year graduates 43.05 courses. The 5-year graduates dropped more courses, repeated more courses, and took more remedial courses.

3. Survey by Offices of Enrollment Management and University Registrar of 1995-96 graduates concerning factors that impact degree progress, reported October 1997. (Appendix E, Item 3). A survey was conducted with 400 representative graduates from 1995-96 who entered as freshmen. The principal reasons for delayed graduation were found to be a) dropping and repeating classes, b) enrolling in fewer classes to protect grade point averages, and c) enrolling in fewer classes in order to have more time to devote to employment responsibilities.

4. Extensive data compiled on graduates from Summer 1992 to Spring 1998 by college and major by the Office of Enrollment Management; reported November 30, 1998. (Appendix E, Item 4) The mean elapsed years to graduation were 4.7, 4.9, 4.9, 5.0, 4.9, 5.0 for 92-93, 93-94, 94-95, 95-96, 96-97, and 97-98 graduates respectively; note that the deviation from 4.9 years is quite small. The mean fraction of excess credit hours varied from 7.5% to 9.8%. The mean attempted credit hours varied from 14.4 to 15.5 (not enough to graduate in 4 years). Social Work was omitted from the tabulation of majors for reasons that are not clear. UCRC's further analysis of these data are represented in the scatter graph in Appendix E, Item 5. Solid squares indicate average time to degree versus accumulated credit hours for majors in the Colleges of the Arts and Sciences, while the open diamonds represent students graduating with majors, which did not have all the ASC GEC requirements. (Majors with fewer than 5 students graduating in the 1992-98 time frame were eliminated from this comparison.) This graph suggests that the observed variability in time to degree was independent of the higher GEC requirements in the Arts and Sciences. Furthermore, the perception that majors in the natural sciences, with their higher "shadow" requirements, take longer to complete their degree was not borne out in this survey – in all but one of the science majors (Geological Sciences), the average graduation time was less than five years.

5. Enrollment Patterns of Undergraduate Students prepared by Alice C. Stewart and Sheila Craft of Resource Planning and Institutional Analysis. (Appendix E, Item 6). UCRC also communicated (thanks to the help of Senior Vice President for Finance and Business William Shkurti) with Alice Stewart, who developed a study using a cohort of students who started as freshmen at OSU and graduated during fiscal year 2000 and who had filled out and returned questionnaires. The study contends that the cohort was reasonably representative except for the high percentage of women. The definition of timely graduation used was that of the Board of Regents: 4.25 years. 74.8% of the cohort graduated in a timely fashion. 15.1%, and 10.1% graduated in 5.25 and 6.25 years respectively. The overall average across the respondents was 4.6 years to graduation. The contrast with the results of the previous study (which indicated 4.9 years on average to graduation) is probably due to both the cohort choice and a different measure of graduation time. The fraction of students averaging more than 15 credit hours per quarter during Autumn, Winter, and Spring Quarters was 41%. Data from a Spring 1998 survey of 9000 students were also examined by RPIA. Timely graduates (4.25 years or less) were found to be more engaged in on-campus activities while less timely graduates (5.25 years or more) were found to be more engaged in extensive (20 hours or more) off-campus employment and/or family responsibilities. Thus, we can conclude, hardly surprisingly, that students who do not take full (defined as 15 or more) credit loads and/or devote many hours every week to employment or family responsibilities take longer to graduate.

6. Notes from a March 8, 2000 meeting of the Registrar's Committee on Instruction with Sherri Noxel and Linda Katunich. (Appendix E, Item 7). Reference was made to studies #3 and #4 above. Their summary indicates that the average student graduates at the end of 5 years with 110% of the credits required; average credit hours per quarter are 15, a credit load which, of course, makes timely graduation an impossibility. Double majors and internships do not seem to be an important factor in preventing timely graduation.

B. Discussions and Correspondence

1. Discussions on October 24, 2001 with Vice Provost and Dean of Undergraduate Studies Martha Garland and Assistant Vice President, Enrollment Services James Mager. (See “Consultation”). In her remarks, Vice Provost Garland said that research indicates that the GEC has little effect on time to degree for most students. Assistant Vice President Mager said that a 1996 survey showed that a number of students believed felt that the GEC delayed their graduation, but analysis of transcripts did not support this view. He cited the conclusions of the survey (#3 above) about the primary reasons for untimely graduation.

2. Discussion on October 24, 2001 with Robert Gustafson (see “Consultation”). Co-ops and Internships do not necessarily affect time to degree. A University of Akron study found that co-op participants graduated a quarter earlier because students not on co-op were employed part-time and took lighter course loads.

3. Note from Barbara Wharton to Julie Carpenter-Hubin about student perceptions of the effect of GECs on time to degree, sent to UCRC on March 6, 2002. (Appendix E, Item 8). Survey data from the Student Satisfaction Inventory and the Time to Degree Alumni Surveys indicate that students perceive the GEC to be a minor barrier to graduation. The 1996 graduates referred to in Study Number One in Section A above felt more strongly about this than did 2000 graduates. Student academic records were examined to see if varying GEC requirements among majors slowed down students who changed majors. This did not seem to be an issue unless the change was made in the senior year, in which case it was only one of several difficulties.

4. Note from Alice Stewart, RPIA, April 26, 2002. (Appendix E, Item 9). “Usually students who are motivated to graduate within 4 years do so by taking a higher number of credit hours and/or taking courses in the Summer Quarter. We find this pattern among the sample of students and we have observed it in the population as well.”

5. Quote from Student in Lantern Article, May 3, 2002. (Appendix E, Item 10). A graduating senior says he managed to complete his course load within four years, although he did say that he enrolled for Summer Quarter as a part-time student twice to obtain more credits. He said it was the easiest way to ensure a timely graduation date: “I’d advise anyone to do it ...”

Summary: The evidence cited above demonstrates that many students do not earn enough credit hours per quarter to graduate in 4 years (12 quarters). The principal reasons for their not doing so are 1) dropping courses, 2) not registering for a sufficient number of credit hours (for various reasons such as protecting a GPA and off-campus employment), and 3) employment responsibilities—usually off-campus, usually over twenty hours. The surveys further showed that extensive employment (20+ hours per week) off-campus was motivated by either economic necessity or a desire to achieve or maintain a particular kind of life style. Also contained in some of the above studies were references to the effect of the total number of credit hours required for a degree and the effect of the predominance of 5-credit courses.

If the University is interested in shortening time to degree, several measures present themselves as worthy of consideration:

- providing in orientation materials information as to what the average number of credit hours per quarter must be for timely graduation,
- providing explicit information in orientation materials as to how one might graduate on a timely schedule (See Ancillary Recommendations 8-11),
- making very clear to students the likely ramifications for time to degree if they are employed more than 20 hours per week,
- revising credit hour policies and practices at some point in the near future (see Section C immediately below),
- moving the course drop deadline up to not later than the fourth week of the quarter thereby also diminishing what many see as the grade-point average inflation resulting from the end-of-the-seventh-week deadline, and
- developing more three- and four-credit courses so that it will be easier for students to schedule more than fifteen credit hours.

At the same time, the reasons cited for untimely graduation may also suggest that timely graduation is neither possible nor desirable for all students, especially for non-traditional and, of course, part-time students.

C. Credit hours and time to degree

At many universities the credit hour requirements for bachelor's degrees are 120 semester hours or 180 quarter hours. OSU quarter hour requirements vary by major, but are presently 191 for BA degrees. The question of changing this requirement, in particular lowering it to 180, has arisen several times. In 1994 Provost Richard Sisson asked Dean of Arts and Sciences Robert Arkin's opinion on this matter and asked for information on time to degree matters that motivated some of the above studies. Dean Arkin pointed out a number of pertinent issues in letters provided to the Committee. More recently, President William Kirwan also included in the charge to UCRC a consideration of time-to-degree and also asked the chair of UCRC about the possibility of lowering the credit hour requirement for BA degrees to 180. The present OSU guidelines for credit hours are enumerated in Rule 3335-7-24:

(A) All courses shall be assigned a number of credit hours in accordance with the procedure outlined in rules 3335-7-02 to 3335-7-04 of the Administrative Code. This may be any number from zero on up; however, in determining the credit hours assigned, the department, school, college, and council on academic affairs should use as a guide the following suggested standards:

- 1) One credit hour shall be assigned for each three hours per week of the average student's time, including class hours, required to earn the average grade of "C" in this course.*
- 2) One credit hour shall be assigned for each two consecutive credit hours of practical or experimental work per week in any department or school.*
- 3) One credit hour shall be assigned for each three hours of laboratory work per week when no additional outside work is required. Then the standard in paragraph (A) (1) of this rule shall be applied.*

(B) In determining the hours per week required by the course or work, the council on academic affairs may, in appropriate cases, consider the average weekly hours spent during a quarter, semester, or session on the course or work. It should be remembered that the above are guides only and many may be deviated from for good cause.

1. December 18, 1994 Letter of from Dean Robert Arkin to Provost Richard Sisson
(Appendix E, Item 1)

- “... for reasons unclear to me, Ohio State long ago settled on a convention of the 5-hour course.”
- “... we reviewed catalogs from UCLA, Stanford, Minnesota, and Cleveland State, and found that their convention is 4 hours. Actually, I know of no other quarter-system school that uses a convention of the 5-hour course (see Table 1, ...)” [*Committee comment: Of the benchmark and top-twenty universities we researched, only one quarter system institution operates on a five-credits-per-course standard: the University of Washington*]
- “The implication is that the typical Ohio State student will have a course load of three courses per quarter. In contrast, the typical student at another quarter-system institution will have a course load of four courses per quarter. ... Our 5-hour convention may place our students behind the eight-ball.”
- An example was given from the College of Social Work where a large number of 3 and 4 credit hour courses are given in the major and a total of 180 is required for graduation.

Summary (for BA degrees in Arts and Sciences):

- 1946-47 through 1973-74: 196 hours
- 1974-75 through 1982-83: 180 hours (review of degree programs and time to degree resulted in reduction.)
- 1983-84 through 1996-97: 196 hours (to improve weaker programs and to bring total in line with comparable universities. ... "In 1973 the ASC Senate voted to lower the credit hour requirement to 180 primarily on the assumptions that high school students would come to us better prepared, that our courses would thereby become more rigorous, and that 180 would be the common norm at most colleges and universities. None of these assumptions has proved to be valid.")
- 1997-98 through present: 191 hours (the number of GEC hours was reduced by 5)

2. Letter of February 28, 1995 from Dean Robert Arkin to Provost Richard Sisson
(Appendix E, Item 2).

- “This transcript analysis suggests that a conversion to a 180-hour degree from our existing 196-hour degree will result in an increasingly dramatic disparity in total courses taken for the degree with peer institutions on the quarter system, a disparity that may diminish the judged value of our degree.”
- “Comparable quarter-system schools require about 45 courses for graduation. That list includes Northwestern, where 45 academic courses is the stated requirement, and UCLA and Stanford, where a four-hour course is the norm (4 x 45 provides the 180 hours required toward graduation.)”

- “Data on our students show that four-year graduates complete 40.90 courses, on average, and that five-year graduates complete 43.05 courses, on average.”
- “Someone may wish to make the case that our five-hour courses are more rigorous, more demanding than the comparable four-hour course at Stanford, UCLA, or Northwestern. However, others may say that Psychology 101 is Psychology 101 at any of these schools, and I for one would be hard pressed to counterargue.” (See next item for a similar statement about introductory economics courses.)

3. September 26, 2001 Undergraduate Curriculum Review Committee meeting with Executive Vice President and Provost Ed Ray (see “Consultation”). The Provost suggested that it might be appropriate for the Committee to examine the problem of determining how many credit hours are assigned to a given course. He said that the introductory economics courses at OSU are very similar to such courses elsewhere, yet the number of credit hours usually exceeds those at other universities.

4. Student focus group meetings (see “Consultation”). In four of our ten focus-group meetings with students, they expressed their opinion that the assignment of numbers of credit hours to courses is not consistent and is not therefore useful to them in knowing what amount of effort is required in taking these courses. Several members of UCRC said that students had told them essentially the same thing on a number of other occasions. The ad hoc University Calendar Committee received similar student input (see next item). Vice Provost and Dean of Undergraduate Studies Martha Garland also reported student dissatisfaction with the inconsistency between credit hours and course load (see “Consultation”).

5. Report of the 2001 Ad Hoc University Calendar Committee, Report of the Student Issues Subcommittee, Recommendation 10: “A more precise and consistent system of defining credit hour should be devised and instituted so students would know better the amount of work any course is likely to demand. Such a system would facilitate the designing and scheduling of courses that do not fit the traditional semester pattern.” (David Stetson [Chair], Joe Barr, Julie Carpenter-Hubin, Beth Greene-Costner, David Lieberman, Margaret Strow.)

6. May 18, 2001 letter from Professor William Childs, Department of History, member of the 1995-96 Review Committee. (Appendix E, Item 11). Professor Childs makes a number of the same points made above by Dean Arkin with respect to universities on the quarter system (except for OSU) having mostly 4 credit hour courses and a 180 credit hour requirement for a degree. He further notes that such a system corresponds to taking 45 courses, rather than the 38 courses OSU effectively requires.

Summary: UCRC recommends that the misalignment between credit hours and course content be addressed, and holds that, until it has been, it is unwise to decrease credit hours to graduation below the present level of 191. OSU would benefit substantially from a careful examination of its credit hour definition and policy. Benefits could include a) reduction in the number of credit hours for a bachelor's degree, b) better indication to students of effort needed for a course, c) more encouragement for students to take enough courses on the average (by keeping 15 credit hours as the normal minimum) to graduate in 4 years and d) facilitating a semester conversion. Thus UCRC recommends that the Provost empanel a committee and charge it to:

- study how other universities have dealt with this problem (the University of Washington is a case in point),
- develop a series of recommendations as to how OSU might most productively address this problem and assure that credit hours per course reflect appropriate content, and
- undertake any other activities that he feels would be appropriate to this issue.

Various options for correcting this problem present themselves. Regarding new courses, the Office of Academic Affairs could charge the college curriculum committees with establishing guidelines on the content and student work load appropriate to various numbers of credit hours and it could coordinate these guidelines so that some uniformity prevailed across the university. It was pointed out that the University of Washington asks on its course approval forms why a proposed course is appropriate to the credit hours requested and how it compares to student work load required in the proposing unit's other courses. For courses that are already established, deans could ask departments to scrutinize their existing courses as a part of their regularly occurring course reviews and/or major revisions (many units at OSU already conduct such reviews on a frequent basis). Again a coordinating mechanism would be necessary especially given the size and diversity of OSU's many curricula. Finally, UCRC is of the opinion that this process needs to include an outcomes analysis in order to assure that the changes made are indeed working.

UCRC further recommends that, after credit hours have been more accurately aligned with course content, the university empanel a committee to re-evaluate its policy on credit hours to graduation.

VII. Consultation on the GEC

As an important aspect of its mission, UCRC consulted broadly across the University community, gathering information on and perspectives from administrators, faculty, professional staff, and students. During Autumn Quarter 2001, the Committee met with Executive Vice President and Provost Ed Ray; Vice Provost and Dean for Undergraduate Studies Martha Garland; Assistant Vice President for Enrollment Services James Mager; college curricular officers: Ted Dahlstrand (Associate Dean, Mansfield), Mark Giese (School Secretary, Food, Agricultural and Environmental Sciences), Charles Hancock (Professor, Education), Daniel Jensen (Professor, Business), Jay Yutsey (Director of Undergraduate Programs, Business), Kitty Kisker (College Secretary, Nursing), and Mona Dove McGlaughlin (Assistant to the Dean, Arts and Sciences); college and transfer advisors: Gloria Eyerly (Assistant Dean, Humanities), Sheila Francis (Program Coordinator, Arts and Sciences), Beth Ray (Assistant Dean, Arts and Sciences), Larry Greenfield (Coordinator of Academic Advisors, Arts and Sciences), Judith McDonald (Coordinator of Field Experience, Engineering), Marie Taris (Director of Graduate International and Professional Admissions), and Sharon Tipton (Counselor, Allied Medical Professions); and a group of instructors of GEC courses: Professors Robert Arkin (Psychology and former Dean of the Colleges of Arts and Sciences), Joseph Ferrar (Mathematics), Anna Grotans (Germanic Languages and Literatures), William Notz (Statistics), Daniel Shapiro (Mathematics), and David Stetson (Biology). Allyson Lowe (Graduate Fellow, Political Science) was also interviewed. Pairs of Committee members also met with nine panels of undergraduate students during Autumn Quarter.

In January 2002 the Committee met with the Associate Deans of the Arts and Sciences—C. David Andereck (Mathematical and Physical Sciences), Edward Adelson (Arts), Linda Harlow (Humanities), Donald Haurin (Social and Behavioral Sciences), and Caroline Breitenberger (Biological Sciences). During that month, UCRC also held open fora for the faculty on two occasions. In January 2002, two Committee members met with a student focus group on the Newark campus and in October 2002 eight members of the Committee interviewed a student panel convened by the Undergraduate Student Government. For most of these consultation sessions, the Committee developed questionnaires to initiate and guide discussions.

The chair of the Committee, Marilyn Blackwell, also consulted with President William Kirwan, Executive Vice President and Provost Ed Ray, Senior Vice President for Business and Finance William Shkurti, Senior Vice Provost Alayne Parson, University Registrar Brad Myers, the empanelling committee (Professors Edward Adelson, Larry Anderson, Susan Fisher, and Steve Reed; and former Dean of Biological Sciences Alan Goodridge), Daniel Farrell (former Vice Provost for Honors), Jack Cooley (Assistant Vice Provost for the Colleges of the Arts and Sciences), Mary Ellen Jenkins (Assistant Dean of the Colleges of the Arts and Sciences), John Wanzer (Assistant Dean of the Colleges of the Arts and Sciences), Robert Gold (Dean, College of Mathematical and Physical Sciences), Donald Haurin (Associate Dean, College of Social and Behavioral Sciences), Professor Susan Fisher (Secretary of the University Senate), Diane Birchbickler (Director of the Foreign Language Center), Gerald Reagan (chair, Special Committee for Undergraduate Curriculum Review), Charles Babcock (chair, Special Committee for Undergraduate Curriculum Review in the Arts and Sciences), and many others.

Furthermore, after the Draft Report was distributed throughout the university, members of the Committee met with many individuals, councils, committees, and constituency groups (see

“Introduction”) to discuss our recommendations and to obtain feedback on them. We also solicited by e-mail opinions from the entire university faculty.

As might have been expected, feedback from these sources regarding the GEC varied considerably due, at least in part, to the diversity of the constituencies and individuals themselves and also to the fact that UCRC developed questions for these groups that addressed their particular expertise or interest base.

I. Consultations with College Curricular Officers—September 26, 2001

In response to a question as to how students decide which courses to take within GEC categories, the curricular deans cited student schedules as the most important factor in their selection of GEC courses, followed by other students’ advice, and counselor suggestions. Regarding students’ choices within the GEC, most advisors said that students take courses on topics with which they are familiar. Often students encounter difficulty in getting into such courses (examples mentioned were Mathematics 116, English 110, Philosophy 153, data analysis courses, foreign language courses of choice, and capstone courses) because there is a high demand for these classes. This group also noted that there were insufficient Honors courses to accommodate demand and that two-course sequences (especially those offered only once each year) presented scheduling problems for students. It was pointed out that students from the Honors and Business programs may circumvent problems through petition or substitution options. Taking sequenced courses was also cited as problematic for students’ schedules because some courses are offered only once a year. Providing a year-long interactive web-based master schedule would provide students with information that would help them “self-advise” and meet their GEC requirements efficiently. Another scheduling problem lies in the fact that professional students (especially those with clinical course requirements that run throughout the day) and non-traditional students both here and on the regional campuses often have few choices because not many GEC courses are offered in the late afternoon or evening. Nonetheless, these difficulties do not seem to impede students in achieving timely graduation. Conflicts with work schedules were reported as the greatest problem students encounter in trying to meet GEC requirements.

Also pertinent to the issue of scheduling is the report by one participant that senior exit surveys conducted by the Office of Student Affairs found students to be working on average fifteen hours a week. It was suggested that additional GEC offerings during the evenings and on Saturdays might ease the difficulties faced by these employed students.

Participants were asked about student opinion regarding the quality, difficulty, as well as the value of GEC courses. The guests generally agreed that students initially are not very open-minded about the notion of a liberal education, but also concurred that they become more positive about the value of the GEC as they achieve junior and senior standing.

Finally, the group was asked about changes it would recommend for the GEC. The guests expressed a concern that if we moved to 180 credit hours for graduation, we might have to reduce both electives and GECs. One participant asked about reducing the hours of natural science in the GEC, the need for a history sequence, the requirement for two versions of the diversity requirement, substituting culture courses for foreign language courses, imparting greater flexibility to the curriculum by decreasing the specificity as to how requirements must be met, the wisdom of double counting courses (a practice she thought both students and faculty members found confusing), an appraisal of GEC courses, alternative delivery of instruction (e.g. classes that meet only one day a week), creating more seats in Capstone courses, providing credit

for study abroad and service learning, and simplifying the petition process for taking alternative courses. It was also suggested that a mechanism be developed to encourage departments to offer more GEC courses and that there be some effort to simplify the process of GEC course review and approval.

Summary: The entire group maintained that the single most pressing need for students in regard to the GEC lies in the area of scheduling. They suggested a variety of scheduling problems that need to be addressed in a serious way (see Ancillary Recommendations 4-5, 7-8, and 10 for the Committee's suggestions on this issue.) Other suggestions from a few people were developing more courses, reviewing existing GEC courses, improving the course approval process, better advertising the petition process, offering alternative modes of GEC course delivery, implementing the third writing course, providing more seats in Capstone courses, and eliminating the drop-a-course option for BS students in ASC. (See Ancillary Recommendations 2-10, 13 and the Curricular Recommendations).

II. Consultation with Executive Vice President and Provost Ed Ray—September 26, 2001

Executive Vice President and Provost Edward Ray asked the Committee of what exactly a core or a general curriculum consists. At its heart, he maintained, such a curriculum must impart analytical skills and strategies, provide an understanding of other cultures, and foster certain modes of thinking and learning. He contrasted such a curriculum with one that centered on courses dealing with specific facts or content knowledge.

The Provost then requested that the Committee consider the reasons behind the number of credit hours assigned to courses. What rationale, he asked, might be used to determine the credit hours for courses? However, the question as to what constitutes a credit hour is, of course, not a GEC-specific phenomenon but rather extends to the entirety of the University's course offerings as well as to those of other Ohio universities. Thus, when the Provost later in the year suggested to the chair that this issue is best left to a state-wide committee in order that any possible change in OSU's assignment of credit hours per course not disadvantage it in terms of state subsidy (see "Time to Degree"), the Committee concurred.

The Provost also expressed concern about the relationship of the GEC to the overall education of undergraduates at OSU. There is, he said, at present a disconnect between the major and the GEC, and a better integration of the general education curriculum with the major is needed. Further, the GEC should not disadvantage those who change majors (see "Time to Degree"). The recommendation on GEC/Major overlap in this Final Report addresses this concern (see pages 34-35).

Finally, Provost Ray addressed the issue of calendar conversion. He reported that the changes required to implement the Student Information System alone could take three to four years to effect. Yet calendar conversion, he said, could provide the impetus for thoroughgoing changes to the general education curriculum. It was the view of the Committee that, while calendar conversion might provide an impetus for far-reaching changes to the curriculum, it now seems clear that if any such conversion takes place, it will be relatively far in the future. Thus UCRC decided that it did not have to take into account the effects of any semester conversion on the GEC.

III. Consultation with College and Transfer Advisors—October 3, 2001

The session began with a question as to how students' use of the GEC varied among colleges. An Engineering advisor reported that students tend to use peer advice in selecting GEC courses; an ASC advisor reported that students take courses that support their majors or broaden their experience. Yet, according to the advisors, even ASC students sometimes lack a holistic view of their undergraduate experience, focusing on getting a degree rather than an education. Far too often they are, our guests said, too provincial, concentrating on their majors and not understanding the importance of the GEC. In this connection our guests also observed that student choices in GEC areas with a wide range of options are often constrained by student apprehension about academic areas with which they are not familiar. The advisors proposed such solutions as a GEC course book with more detailed descriptions of course contents or a website with these descriptions and rationales for all courses. Such strategies might also address the concern raised that transfer and international students have varying expectations of the GEC. A further solution might be to communicate the importance of the GEC more adequately in admissions material and with high school counselors.

The single most vexing problem for students, especially non-traditional students, the participants said, was scheduling, especially since it is the single greatest factor determining which GEC courses a student selects. (Participants proposed distance learning and scheduling GEC courses in the late afternoons and evenings as two ways to help alleviate this problem.) Other important influences in order of impact were other students' advice, counselors' advice, and the requirements of major programs.

The advisors also noted that our transfer students (approximately two thousand per year) sometimes have difficulty getting their previous course work accepted for GEC credit, but Beth Ray assured us that this problem is being addressed very effectively through a web-based matrix for evaluating transfer credit for Ohio students. The view was also expressed that GEC advising is best done by college-level advisors, since major advisors are less familiar with the GEC and sometimes give incorrect advice about the GEC and its courses.

Regarding consistency in quality of GEC courses, the group agreed that there is wide variation in this area. Smaller classes, they reported, are of consistently higher quality than larger ones. The factor that most affects consistency is, they reported, class size.

The advisors also suggested that a periodic review of GEC courses might be instituted.

Summary: The matter of greatest concern to this group (six out of seven participants) was the fact that the value of the GEC is not being communicated to students. A majority were also concerned about improving and/or facilitating the advising process and reported that scheduling is the most vexing problem they and their students faced. Several mentioned flexibility of the GEC and class size as concerns, and individuals mentioned the need to restrict GEC advising to college-level advisors and periodically to review the GEC.

IV. Consultation with Instructors of GEC Courses—October 10, 2001

The discussion began with a consideration of whether or not the size of GEC classes affected the instructor's ability to achieve the stated goals of the class. Two faculty members commented that large enrollment classes permitted little more than lecturing, restricting if not precluding opportunities to teach logical thinking and to include a significant writing component. Despite these restrictions, both believed these large enrollment courses could be very positive experiences for students.

Asked about specific educational deficiencies that the GEC needs to remedy, one faculty member lamented the poor preparation many students receive in speaking and writing in high school and the way that this inadequate training impedes their ability to write logically in GEC courses. Calling for more training in this area, she observed, “This is one of the cases where more is better.” Another faculty member said his students were totally lacking in logical thinking skills. Both expressed concern that students with poor preparation are passed through first writing courses without really learning much from the experience.

When asked about consistency among GEC offerings, nearly all participants agreed that there is considerable inconsistency in the quality of GEC courses. They suggested that the factors affecting this inconsistency include class size, rank of instructor, format, and degree of familiarity with the values of the GEC. One faculty member maintained that students view GECs as hurdles to be cleared early on in their careers, and that GECs are geared more toward the benefit of individual units than toward the best interests of students. It was noted that the habits of mind that GEC courses are trying to inculcate are insufficiently articulated in course syllabi. Some proposed doing a better job of convincing first year students of the value of general education. Others opined that students between the ages of 18 and 22 might not yet be developmentally ready for courses that are directed at promoting their engagement in the world. Still others suggested linking the GEC more closely with the major, perhaps by bundling courses in thematic sequences and thereby showing relevance to the major area of study. Such proposals could present problems for students who change majors and might change the GEC from a horizon-broadening to a major-centered educational experience.

A very experienced Graduate Teaching Associate also expressed deep concern over the inappropriate variability of course content from section to section in some courses and the lack of meaningful training for Graduate Teaching Associates.

Regarding the advantages/disadvantages of having upper-level versus lower-level GEC options, a faculty member suggested that there ought to be more upper-level courses that inculcate desirable habits of mind but that do not have extensive prerequisites. He also advocated more lower-level Honors GECs.

Summary: A clear majority of those present thought that our students need more training in writing, mathematics, and logical thinking skills. An equally large group was of the view that the purpose and value of the GEC is insufficiently communicated to our students. One faculty member suggested additional course offerings and another participant expressed the view that we need to do a much better job of training Graduate Teaching Associates for our GEC courses.

V. Consultation with Vice Provost Martha Garland, Associate Vice-President Jim Mager, Associate Dean Linda Harlow (College of Humanities), Associate Dean Robert J. Gustafson (College of Engineering)—October 24, 2001

Martha Garland and Jim Mager were invited to address the Committee and respond to questions submitted to them in advance. Martha Garland elaborated on the recent changes in advising with the demise of UVC and with the new policy of enrolling students directly into the colleges of their intended major. Advising of Arts and Sciences students at all ranks is now the responsibility of Undergraduate Student Academic Services. She observed that this mode of advising, while likely to be more effective in general, would have little effect on the GEC.

Garland also informed the Committee that approximately half of the undergraduate population is in Arts/Humanities/Social Sciences and that for this group the GEC has little effect

on time to degree. Those students in scientific and technical fields, because of prerequisites and many highly sequenced courses, require a wider range of choices to navigate through the GEC requirements in a timely manner. Responding to the question regarding closed courses, she pointed to achievements in the past few years in both better management in guiding students through the curriculum and additional funding for more sections of courses with high student demand.

Garland dismissed as insignificant any impact the GEC might have on time to degree and on retention of students. Jim Mager agreed, noting that 15% of the students polled in 1996 alleged that bad advising and the GEC hindered their graduation, but that analysis of their transcripts did not support this perception. Garland reported that some students remain hostile toward the GEC, often because scheduling complexities force them into courses they would otherwise not choose. Feeding this hostility, she added, is the perception that GEC courses are taught by insufficiently prepared graduate students and that there is an incompatibility between credit hours and course content and workload.

Jim Mager presented the Committee with abundant data dealing with time-to-degree issues and graduation rates. He reported both that the GEC had virtually no impact on recruiting and retaining students and that results of a 1996 survey of OSU graduates indicated that late graduation resulted from students' taking fewer classes because of off-campus employment, dropping and repeating classes and consequently earning fewer hours each quarter, and also enrolling in fewer classes to protect grade-point average. Students in the survey perceived that the GEC had slowed their time to degree, but there was no evidence to support that contention.

Linda Harlow and Robert Gustafson then spoke to the Committee about cooperative education, internships, study abroad, and foreign exchange programs and their impact on time to degree. Linda Harlow reported that approximately 25% of the College of Humanities students participate in study-abroad programs with no appreciable effect on their time to degree. Bob Gustafson spoke about internships and cooperative education in the College of Engineering. These valuable experiences, he reported, may extend the student's time to degree if the quarter in which they are scheduled puts the student out of sequence with his or her coursework, but they do not necessarily do so.

Summary: Three of our four administrative guests pointed out that the GEC does not adversely affect time to degree. Rather, it is affected by extensive (over 20 hours per week) off-campus employment, not enrolling for full course loads, dropping classes, and choice of major (see "Time-to-Degree" and Appendix E.) These interviews also indicate that: 1) foreign study, internships, and cooperative education affect time-to-degree by and large only if the student engages in them during particular quarters; 2) we need to communicate better the purpose and value of the GEC; 3) the Office of Academic Affairs is effectively addressing the closed-courses problem; and 4) students, especially those in the scientific/technological fields, need a wide-range of GEC course offerings.

VI. Consultation with Curricular Associate Deans of Arts and Sciences—January 31, 2002

David Andreck said that in his view the GEC is a bit too large and restrictive and that BA students may not get enough mathematics and science to operate effectively in the modern world. He questioned the need for four quarters of foreign language proficiency for BS students and proposed substituting computer and information science courses for foreign language courses for these students (arguing that mathematics might be considered a foreign language),

and also further suggested that there be more overall distinction between the BA and the BS. He then suggested that introductory courses for majors should not be conflated with GEC courses and cited Physics 103 and 104 as examples of how this distinction should be maintained.

Ed Adelson addressed the high value that the College of the Arts places on GEC courses. Specifically, he spoke to the need for students to experience the breadth these courses bring even for students within the college that has primary responsibility for a particular GEC category. Thus he opposed a proposal to exempt students in the Arts from the GEC Visual and Performing Arts requirement.

Linda Harlow echoed Adelson's support of the GEC and the breadth that is such a prominent feature of it, saying that Humanities requires a broad-based background for its students. She allowed that 10% of incoming freshmen, by taking proficiency tests, receive EM credit for English 110 and that only 3% of first quarter freshmen do not receive at least one quarter of exemption in the foreign language requirement. She noted that some students decide on their majors by being introduced to the subject matter in a GEC course. But, she added, the GEC is somewhat difficult to navigate.

Don Haurin expressed satisfaction with the GEC as it is currently configured, emphasizing the breadth it imparts to the undergraduate experience. He did not favor a reduction in hours, but did advocate making the elective hours more organized. This could take the form of requiring a minor, so that, with better advising, students could enrich their educational experiences with the GEC, a major, and an organized (perhaps even interdisciplinary) minor. He then spoke of data analysis as critical for social science students and of the importance of a third writing course and a contemporary issues course for all undergraduates.

The last speaker, Caroline Breitenberger, called attention to the ways in which we teach GECs, specifically in the sciences. She noted that in the sciences there has been a development away from teaching from a rote-learning model to inquiry-based instruction in which the material is presented as a mode of scientific inquiry. Especially perhaps in those courses for non-science majors, she argued, it is important to move away from simply memorizing facts and towards an understanding of scientific principles and how scientific work is done. Students then have a better understanding of how these principles impact their day-to-day life.

Summary: Three of the five associate deans favored retaining the current GEC, one wanted to cut credit hours by reducing the foreign language requirement, and one did not address this issue. Furthermore, one participant suggested that the GEC should be simplified, and one observed that we should require a minor of all students and that the data analysis, third writing, and contemporary issues courses were especially important.

VII. Student Focus Group Summary

Ten panels of undergraduate students were convened during Autumn 2001 and Winter 2002 for interviews about their experiences with the general education curriculum. Students in the ten focus groups were selected by the Office of the University Registrar to represent proportionally OSU's undergraduate population by college, rank, gender, and race/ethnicity. The registrar's list was supplemented with students selected by Undergraduate Student Government and with students who responded to an advertisement in *The Lantern*. UCRC, using both the Office of Enrollment Management's figures for proportional representation of undergraduates in all colleges and the size of the student sampling in the 1995-96 review, estimated that a pool of eighty students would be a reasonable sample size. More than 200

students were contacted by e-mail and by telephone; sixty students actually reported for interviews in Columbus and in Newark. Focus groups ranged in size from one participant to eleven participants. Forty-two of these students were Caucasian, seven Asian, two African-American, one Hispanic, and eight did not report race/ethnicity. The distribution of these sixty students is given below. “Expected participants” are those who would have formed the proportional sample; “actual participants” are those who were interviewed.

Focus Group Participants: Distributions

college/ school	participants (expected/actual)	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
AGR	3/2			1	1	
AHR	1/1		1			
AMP	2/2			1	1	
ART	3/1				1	
ASC	27/20		4	9	7	
BUS	8/10	1	1	2	6	
CED	3/3			1	1	1
DHY	1/1			1		
EDU	1/3		1		2	
ENG	9/6		2	2	2	
HEC	5/4		1	3		
JUR	1/1				1	
NRE	1/1		1			
NUR	1/0					
PHR	1/0					
SWK	1/2			2		
USAS	14/3*		1	1	1	
	83/60	1	12	23	23	1

*Regarding the deviations between expected and actual numbers of attendees, the Committee was not especially concerned about the low turn-out of students in USAS since these students are usually still quite early in their educational careers and thus less likely to have had extensive experience/expertise in the GEC or other aspects of their University educations.

The Review Committee developed a questionnaire with nine items to initiate and guide discussion in the focus groups. Two members of UCRC moderated each of these focus group sessions. Tape recordings were made of these ten sessions, and the moderators produced a written summary of the responses. One additional student focus group was convened by the policy directors of the Undergraduate Student Government on October 29, 2002. Thirteen undergraduate students selected by the USG met with eight members of the Committee on that date. Each of the questions and a summary of responses from all eleven focus groups follow.

1. What do you think is the purpose of the GEC and what various requirements does it include?

All the focus groups said the GEC provides breadth to the undergraduate experience, describing it often as broadening and/or helping them to become well-rounded. Half of the focus groups characterized the GEC as expanding students' global horizons, breaking down pre-conceived notions about other peoples and cultures. Several groups saw the GEC as stretching students intellectually, as developing skills for employment, and as exposing students to subject areas where they might major and/or find careers. Although the groups were, generally

speaking, quite positive in their responses, isolated responses held that GEC courses distract students from their majors or are “filler classes” or “relics from the past.”

2. How do you choose the courses that you use to fulfill the GEC?

The groups said they choose GEC courses according to (in descending order of frequency) how the course fits into the student’s schedule, personal interest in the subject, recommendation of a friend, recommendation of an advisor, perceived difficulty of the course, compatibility with one’s major, and whether or not a course fulfills two requirements (double-counts).

3. What are some of your positive experiences with the GEC?

As might be expected several specific courses were mentioned in most focus groups. In general, students said they liked courses taught by interesting instructors, some (but not all) emphasizing the value of GECs taught by faculty members rather than GTAs. The enthusiasm of the instructor was also cited as contributing to a more positive experience, especially for non-majors. Several groups mentioned exposure to other cultures as a positive experience of the GEC, and individual observations were made about the value of exposure to students and teaching styles outside one’s major and/or college.

4. What are some of your negative experiences?

Again some specific courses were mentioned in a few focus groups, but more generally, the interviewees disliked GEC courses that are oriented more toward majors in the subject area than to a more general audience. They were of the view that such courses cover too much material, have too high expectations, and distract students from their major fields of study. Some students, for example, proposed that the Natural Science category include a “general science” course dealing with the ethical/moral dimension of science and the applicability of science to their lives. Individuals in four of the focus groups referred to instructors’ lack of fluency in English. And individuals in three groups complained of inconsistency in the content of GEC courses across sections, inconsistency in grading across sections, and to significant deviations from descriptions in the Course Offerings Bulletin. Isolated comments were made about class management problems resulting from classes that are too large and about GEC course content as a repetition of high school.

5. Have you ever had difficulty getting the GEC course you wanted for a given requirement? If so, what kind of trouble?

Four of the focus groups proposed that more GEC courses be scheduled in the late afternoons, in the evenings, and on Saturdays. Wait-listing for physical science GECs and for courses that double count was mentioned as a problem in one focus group session.

6. Which GEC requirements would you describe as important? Which as less important?

At seven of the student focus groups there was consensus that the writing requirement, including the third writing course, was one of if not the most important of the GECs (11/7/01, 11/9/01a, 11/09/01b, 11/13/01, 11/14/01, 11/16/01, 10/29/02). More than half of the focus groups also stressed the importance of the Diversity requirement. Students also recognized the importance of Mathematics and Quantitative Skills, of Natural Sciences for environmental issues, and of History/Political Science. Foreign Languages, Humanities, and Visual and

Performing Arts were mentioned in several focus groups as important to an undergraduate education. Both Visual and Performing Arts and Humanities were also cited as less important GEC requirements. Four focus groups alluded to the, in their view, too-extensive Natural Science requirement for non-science majors.

7. Do you think there are logistical (not academic) problems with how the GEC is structured? If so, what are they?

Here, most focus groups called for greater flexibility in the selection of courses within categories, or for fewer GEC categories with more structure within them. Recommended for inclusion in the GEC list were more practical (internship) courses and credit for life experiences. Some focus groups noted scheduling difficulties for courses with lectures and laboratories/recitations at differing times and of different lengths, and scheduling difficulties for some GEC courses with unusual start times.

8. Do you work outside of your studies? If so, how many hours? Does this pose a problem in meeting your academic obligations, particularly the GEC component thereof?

Most focus groups had participants with moderate to heavy (full-time) workloads. While a few students mentioned the limitations on course selection imposed by work requirements, no student admitted to difficulty in meeting his or her academic obligations. Indeed, several students with extensive extra-curricular demands on their time appreciated the necessity of setting temporal priorities.

9. What kinds of changes do you think might be appropriate for the GEC? Are there parts that you would expand or reduce?

A list of recurring concerns in the student focus groups and UCRC's responses to those concerns follow in approximate order of frequency.

- **The broadening effect of the GEC:** All eleven focus groups acknowledged that this is both the goal and the effect of the GEC.
- **Scheduling:** Eight out of eleven focus groups cited scheduling as a significant problem in their progress through their programs, with fewer groups mentioning specifically the need for more GEC offerings in the late afternoons and evenings (see Ancillary Recommendation 5), problems in scheduling sequences (see Ancillary Recommendation 4), the need for more courses in general, (see Ancillary Recommendations 7), closed courses (see consultation above with Vice Provost and Dean of Undergraduate Studies Martha Garland), and the desirability of giving priority scheduling to students who are using their GECs as major prerequisites as well (in the Committee's view, this suggestion was impractical), and problems with sequenced courses (see "Curricular Recommendations").
- **More flexibility in the GEC:** Here, eight groups suggested reducing the number of categories in the GEC, and fewer recommended including more upper-level GECs, eliminating or reducing sequencing, and supplementing the Visual and Performing Arts course list. (For UCRC's response, see "Curricular Recommendations".)
- **Reduction of the GEC:** Eight out of eleven of the focus groups raised this issue, although in one of those focus groups, only one person addressed it. The suggestions for how we might do this varied; one or two students apiece recommended shortening the

Natural Science requirement or the Foreign Language requirement and merging the Social Sciences and Social Diversity requirements, the Foreign Language and Social Science requirements, or the Visual and Performing Arts and Culture and Ideas requirements. (See “Curricular Recommendations”.)

- **Importance of the diversity and writing requirements:** At seven of the student focus groups there was consensus that the writing requirement, including the third writing course, was one of if not the most important of the GECs. Typical are the following statements from the focus group summaries: “In general increase courses involving writing...[they said they] need more classes to provide communications skills” (11/09/01), “All said writing courses were the most important GEC” (11/13/01), and “Writing is the most important GEC seemed to be the consensus of the group” (11/14/01). Most students at the 10/29/02 consultation thought the writing courses were very important but insufficiently rigorous and in need of much more emphasis on grammar and mechanics.
- **Inconsistency:** Six out of eleven groups noted inconsistency in both numbers of credits, course content, and levels of difficulty across sections of the same course for GEC courses. Others pointed to inconsistencies in expectations (too much work or too little), in delivery (language fluency of instructors), and in transferability of GEC courses across major programs, and called for some standardization of 367 offerings. Still others, especially in programs where there are three- and four-credit courses, opined that the GEC five-credit standard gives disproportionate weight in grade point average calculations to GEC courses. (See “Curricular Recommendations”).
- **Advising about the GEC:** Individuals in three groups of the students were of the view that the major advisor fails to provide adequate and informed advice regarding the GEC. Some students called more generally for better advising. (See Ancillary Recommendations 8-12).
- **The GEC’s connection to the major:** Three out of eleven focus groups also observed that a revised GEC should attempt to bridge the disconnect between the major and the GEC. They did not see how it relates to the “business” of the major. Actually, in current practice, the major programs already determine to a significant extent what the GEC for their students will be. First, non-ASC colleges develop a college-specific GEC in conjunction with the Arts and Sciences and the Council on Academic Affairs. Second, they select precisely from which courses from the GEC list in (especially) Social Sciences, Humanities, and Visual and Performing Arts their students must choose. And third, although it varies from program to program, many programs allow students to take a certain number of GECs within their majors. Thus, the extent to which the GEC is articulated with the majors is already considerable and furthermore lies largely in the hands of the major programs themselves. However, the adoption of Curricular Recommendation H (pages 34-35) would greatly expand the possibilities for GEC/major overlap.

Summary: The Undergraduate Curriculum Review Committee attempted to identify a pool of students representative of the undergraduate population through random but proportional and representative selection by The Office of the University Registrar. The 73 students who attended the focus group sessions likely represent undergraduates who have concerns about curricular matters and who have given some thought to issues in the general education curriculum. They

may, then, not be entirely typical of the OSU undergraduate population. Nevertheless, the Committee was particularly impressed with the consensus of support among these students for skills courses in writing and in mathematics and data analysis, and with the high priority placed on the diversity requirement. Indeed, a surprising number of students suggested that the requirements for writing and communications courses be increased. Also notable was the degree to which almost all students embraced the goals of the GEC as providing breadth to the undergraduate experience and in stretching students intellectually. The most persistent suggestions for improvement centered on (in order of frequency) scheduling, flexibility of the GEC, reduction in its number of credit hours, inconsistency, and advising. The issue was raised in three sections about the relationship or lack thereof between their GEC courses and major courses. Rather than understanding these GEC courses as essential preparation for success as undergraduates and in life, some students dismissed GEC courses as distractions from their more important major courses. Some students wanted the GEC to have greater relevance and thus proposed changes such as writing courses more specifically tailored to their major or separate tracks for majors and for non-majors. Some students still feel that there is too little connection between the general education curriculum and the rest of their undergraduate academic program, although this perception may be grounded in the misperception that only the major has any real importance in one's education. However, this is an issue that we hope will be addressed by a University-wide recommitment to the GEC and the educational values it embodies and by a series of information strategies geared to accomplish these goals (see Ancillary Recommendations 1-2 and 8-10) as we, as a university community, come to implement our knowledge that the GEC and the major represent the totality of a university educational experience, each part as valuable as the other.

VIII. Faculty Forum Meetings—January 24 and 28, 2002

As part of the consultation process, UCRC met with interested faculty members on two occasions on the Columbus Campus. Notice of these meetings was distributed by e-mail to all regular faculty, and the sessions drew approximately 100 attendees. UCRC chair Marilyn Blackwell presided at both sessions with almost all members of the Committee in attendance. Faculty members were provided with copies of the position paper developed by the Committee regarding the goals of both a university education and a general education curriculum and with a list of questions intended to initiate discussion. The chair began each session by outlining the evolution of the general education curriculum at Ohio State and then elaborated on the activities of the Committee to date and the Committee's plan for accomplishing its charge.

The first question, as to the value or utility of the GEC, drew strong endorsements to the effect that the GEC provides both breadth and depth to the undergraduate educational experience. One participant observed that what makes an educated person changes over time, intimating that the GEC needs to keep up with changes in the landscape of our knowledge, while other participants emphasized pointedly that the laws of nature and the rules of logic and mathematics do not change. Discussion then focused on student perceptions that the GEC is too complicated and too demanding, thus making graduation in four years for students in technical and professional programs nearly impossible. Several faculty members called for more overlapping of GEC courses and/or GEC courses that could count toward the major, or else more flexibility, so that science majors, for example, would not be required to take the Natural Science GECs.

One associate dean spoke of the need for undergraduates to experience a wide variety of academic disciplines and said that the paternalistic nature of the GEC is absolutely appropriate. A school director said that accreditation pressures have forced some professional schools to increase credits in the major. Since GEC courses provide the fundamentals of an undergraduate education, several participants suggested that those programs that require 100 or more credit hours in their major (including prerequisites and technical electives) simply must acknowledge that theirs are five-year programs. Other faculty members commented on both the need to educate students and parents about the long-term value of GECs in employment and in life and also the need to improve advising so that students take GEC courses appropriately and efficiently.

The second question asked to what extent a general education curriculum should apply to all majors and how much flexibility should be included in the GEC. A number of faculty called for a return to a universal foreign language requirement and for the full implementation of the capstone courses. Beyond core requirements for all students (reading and writing, some level of mathematical ability, computer literacy, some level of scientific knowledge), one faculty member proposed using proficiency tests to achieve flexibility in the GEC. In this connection, two speakers suggested that the foreign language issue could be resolved by requiring for university admission three to four years of high school language instruction.

Some faculty members recommended achieving both breadth and depth in the GEC with a cumulative series of GEC courses, some at the upper-level. Others recommended a more flexible model for the GEC that units might guide students to particular courses more valuable to the major because of content or level of instruction. Variation in the GEC, such as is now possible for Honors students by petition, was proposed as a way of achieving more flexibility. While there were repeated calls for greater flexibility in the GEC and for units and majors to be given more options, there was also insistence that a meaningful structure for the GEC be retained to avoid having the GEC become a “smörgåsbord” of courses. Most of those who addressed the issue thought the GECs were a vast improvement over the BERs, while some liked the greater simplicity of the BER scheme. One faculty member implored the Committee to delineate clearly what within the GEC was non-negotiable (the “core” curriculum) so that professional colleges could know the rules of engagement before they begin to forge their college-specific GECs.

In response to the third question, about which GEC requirements are considered more important and less important, some participants enthusiastically supported the GEC in its current configuration. Another faculty member, stating that the arts and humanities were the heart of the GEC, proposed that other areas of the GEC, such as the contemporary issues, might better be handled within the major.

The remaining time in each session addressed the questions concerning specific deficiencies in the preparation of students, logistical problems with the structure of the GEC, and changes recommended for the GEC. Budget restructuring and rebasing were of considerable concern to a number of participants. Participants also sought implementation of the universal foreign language, capstone, and advanced writing requirements and also advocated more truly interdisciplinary courses for the GEC. An administrator from one of the professional schools argued that the last review shifted hours from the major to the GEC and thus that any reduction in total credit hours in a new (180 hour) curriculum must come from the GEC. There was a strong consensus that students need to be educated about the GEC, that they need to understand better how it is fundamentally related to their vocations and their lives. Some participants criticized the usual advice given to students that they should concentrate on GECs during the

first two years; rather they recommended that the curriculum should be spread out over all four years. Other faculty suggested that students should have more choices on the course list and that more courses at advanced levels should be required.

Summary: Faculty participants in both sessions enthusiastically endorsed the Committee's position statement on the goals of a general education. In addition, there was wide support for the structure of the current GEC and the breadth of education it offers. Most participants characterized the GEC as a critical part of a liberal education, while three participants out of the approximately 100 faculty in attendance suggested reducing the size of the GEC (see below in "Recurring Issues Across Consultations"). While no one challenged the fundamental importance of the GEC, a number of participants desired simplification and greater flexibility. Proposals to achieve these objectives included using proficiency testing more extensively (see "Curricular Recommendations"), adding more new GEC courses (see Ancillary Recommendations 7 and 10), reducing the number of GEC categories (see "Curricular Recommendations") and allowing students to take courses at certain levels within the GEC categories rather than requiring them to take specific courses. Several participants asked for more integration of the goals of the general education curriculum into the courses that are in "the major box," an initiative that is the purview of the majors themselves and the Council on Academic Affairs. Participants expressed concern about the impact of budgetary changes on small, upper-level courses. Yet despite all these varying views on and recommendations about specific issues, there was a strong affirmation of the fundamental value of the GEC. The last speaker at the January 24, 2002 forum summed up this view in his observation that the current curriculum should be maintained with the kind of complexity that it has because it promotes and enhances the richness of the educational experience we offer our students.

Recurring Issues Across Consultations: Despite foreseeable variations among the constituencies with whom we consulted, some recurring issues (with varying levels of support) did appear. The following are listed in approximately the order of the frequency with which the concern in question surfaced:

- GEC instructors, and both students and faculty, registered very strong support for the idea that a revised GEC should continue to provide breadth to the undergraduate experience and to stretch students intellectually (see "Curricular Recommendations" and Ancillary Recommendation 1).
- Both advisors and students overwhelmingly stated that students rely almost exclusively on either scheduling or word of mouth to decide which courses they are going to take and that their choices are little grounded in more academic values. From these two constituencies we learned that the single most important criterion for selecting a GEC course was the extent to which it fit into the student's schedule. Ancillary Recommendations 4-5 and 7-8 should alleviate some of this pressure by making it easier to schedule courses. If these are implemented, students should be able to make better-informed choices that are driven less by scheduling and more by academic considerations. UCRC also heard often about the need for better communication as to the function and value of the GEC. Ancillary Recommendation 1, if implemented, will also raise student consciousness as to some of the academic reasons that might inform their decision-making. Also the availability to all students of the "Revised GEC Course List"

and master lists of each department's/school's course offerings for the entire academic year will facilitate more informed choices.

- The majority of the students, virtually all the faculty, and the GEC instructor group supported the retention and/or enhancement of the current GEC requirements in writing and analytical skills development. There was equally strong support for the diversity requirement. (See “Curricular Recommendations” on writing courses, analytical skills, and the diversity requirements.)
- A large majority of both faculty and advisors as well as some students recommended that the revised GEC should more effectively communicate the value of the GEC and "market" its course offerings. Some, but not a majority, of students, especially those in their first two years, undervalue and do not understand the import of the GEC. On the other hand, the following observations were typical for faculty and advisors: “[Our students] need to understand that beyond graduation and in the work world, the experiences they have in GEC courses will be vital to their lives”; “We have to do a better job of convincing freshmen why they are taking GECs. They need to see a connection between their education and the GEC”; “Some students are resistant to acknowledging the importance of the GEC”; “A gradual process of enlightenment” occurs whereby students later in their academic careers have a much clearer idea of the importance of the GEC, and “I understand much better now than I did when I was a freshman why we have to take GEC’s.” (See Ancillary Recommendations 1, 2, and 10.)
- A strong majority of the students, approximately 20-30 of the faculty at the fora, and several advisors recommended a simplified or more flexible GEC. By flexibility, the students seem to be referring to both scheduling and the notion that there should be more choice and less complexity throughout the curriculum. (See Ancillary Recommendations 2, 4, 7-8, 10, and 12.) The Report has addressed the issue of flexibility in the following ways:
 - The replacement of sequences by clusters encourages flexibility insofar as it promotes new intellectual and/or interdisciplinary synergies for students to choose among. “Clustering” should enhance students’ educational experience by providing an opportunity to investigate the same subject matter on an introductory level and on a higher level that would require them to exercise more in-depth thinking and critical skills in an area with which they already have some familiarity and interest. The extent to which students’ schedules are inconvenienced by this proposal depends upon the implementation of Ancillary Recommendation 5 and the Office of Academic Affairs’ continued vigilance in the matter of oversubscribed courses.
 - Almost all the suggestions under “Ancillary Recommendations” are designed to make it easier for students to navigate their way through their curricula. Implementation of the recommendations on scheduling, course delivery, increased course offerings, and improved advising should result in much greater flexibility for students and thus allow them to graduate in a more timely manner.
 - The implementation of Ancillary Recommendation 8, along with the updated GEC course list, will provide students with more accurate information as to which courses “count” for various GECs, which, in turn, will allow students to make more informed choices from a more extensive list, especially in light of the tendency of many students to “self-advise.”

- Course availability and scheduling of courses are, of course, the province of individual departments, colleges, USAS, and the Office of Academic Affairs (when closed courses come into the equation).
 - If by flexibility one alludes to the ease with which a student does or does not move through the curriculum (as was the case for many of the students), a number of UCRC's recommendations are geared toward easing this problem. We would also point out that flexibility primarily becomes an issue if a lack thereof is affecting time to degree. As the information provided by Vice Provost and Dean of Undergraduate Studies, the Assistant Vice President for Enrollment Services, and the Associate Dean for Curriculum in the College of Humanities indicated, and as the abundant data in "Time to Degree" demonstrate, the GEC is not hindering students from graduating in a timely manner.
- A majority of the students and three faculty members recommended that a revised GEC should have fewer credit hours. This suggestion was not related to "time to degree" but seemed rather to refer to the concept of "flexibility." It was the view of these participants in UCRC's consultation process that a shorter GEC would result in more choice and less complexity and would ease scheduling issues. Both items 4 and 6 in this list seem to be part of an impression among these individuals that the GEC is too difficult for students to navigate. (See number five immediately above and also "The General Education Curriculum at OSU," "Time-to-Degree," and "General Education at Benchmark and Top-Twenty Public Universities".)
 - A revised GEC should have more section-to-section and course-to-course consistency. Areas of inconsistency in current offerings include content, grading practices, and quality. (See Ancillary Recommendation 13.)
 - There was concern expressed in three of the eleven student focus groups about the quality of advising, a concern echoed in the consultations with advisors all of whom acknowledged that there are problems with the current advising system even as they suggested ways in which it might be improved. The comments reflected the fact that students rely on faculty advisors to make recommendations about both their major courses and their GEC courses. As the advisors indicated, this is sometimes a misguided practice, since faculty advisors rotate in and out of their positions so frequently that they may not have the time to develop the requisite expertise to give optimally effective advice on the GEC. Ancillary Recommendations 8-9 (on advising), 1-2 (on communication about the GEC), and 4-5 (on scheduling) can go a long way towards helping to solve some of the problems and pressures in this area both by presenting new ways to help students "self-advise" and by improving advising in general.

Summary: Our discussion with the wide range of campus constituencies showed broad support for the GEC, but also a large and varied list of concerns about practical matters of implementation. Especially remarkable was the virtual unanimity as to 1) the value and importance of the GEC (especially the writing, quantitative skills, and diversity components thereof) and 2) the fact that the GEC provides breadth to the undergraduate experience and stretches students intellectually. There were nonetheless smaller or larger subsets of these

groups who expressed concern ranging from mild to strong about a number of issues, the three most prominent of which were scheduling, flexibility, and reduction of credit hours. The last was often expressed as a way to achieve the second. These and many other concerns and recommendations are delineated above and are addressed in “Curricular Recommendations” and “Ancillary Recommendations.”

VIII. Conclusion

In summary, UCRC came to the conclusion that it was necessary for this review of the GEC to be grounded both in the University's larger aspirations, as enunciated by former President William Kirwan in his Academic Plan, and in the quality of the educational experience it offers students, for it cannot achieve the former without succeeding at the latter. The Undergraduate Curriculum Review Committee holds that the implementation of its recommendations will significantly enhance undergraduate education as well as help move the University forward in its goal of becoming a top-tier educational institutions. While not all our recommendations echo those of the Academic Plan, we are nonetheless convinced that a strong GEC that produces a broad educational experience can contribute directly to several elements of the Core Values enumerated there—namely, our obligation to pursue knowledge for its own sake, to ignite in our students a life-long love of learning, to open the world to our students, and to celebrate and learn from our diversity. We are furthermore convinced of the validity of Kantner's observation that "a college degree . . . should be the guarantor of an educated person" (120).

The curriculum we recommend represents a moderate set of enhancements to the GEC currently in place—enhancements that are centered around making the student experience more flexible and more academically rewarding. Our model also values and encourages study at a more advanced level through the use of capstone experiences that engage students with issues of the contemporary world. This curriculum compares favorably, in terms of depth, quality of educational experience, and length, with those of the benchmark and top-twenty public universities. Furthermore, we are here proposing a curriculum that, according to a study of 305 diverse universities, is compatible with national trends, namely that general education curricula across the nation are characterized by "an emphasis on the liberal arts and sciences, attention to fundamental skills, high standards, [and] increased structure" (Gaff 207). This model also tacitly concurs with Newell's contention that

students should graduate with training in analytic and synthetic modes of thinking. They should appreciate the limitations as well as the strengths of their expertise and be prepared to contribute to the holistic understanding of large-scale societal issues. . . . On a personal level, they should be more receptive to alternative ways of thinking, more tolerant of ambiguity or paradox, more creative and unconventional in their thinking and more sensitive to bias (whether disciplinary, ideological, or religious). Being more aware of communal and public issues, they would be better equipped to see how those issues relate to their lives, and more confident of their ability to understand and evaluate those issues. (255)

Almost as important as the curricular revisions UCRC is proposing are the ancillary recommendations, the implementation of which will serve to increase students' understanding of what constitutes a truly excellent education; to improve the quality of instruction; to make OSU and the GEC more responsive to students' needs in the areas of scheduling, accessing accurate information, and advising; to assist them towards timely graduation; and to ensure the quality of the GEC and some of OSU's programs and offerings.

We would also add that after twenty-seven months of investigating the GEC, consulting with all the major constituencies on campus (administration, faculty, staff, and students), reading

extensively in the scholarship on the subject, and considering at length both the GEC and the reasoning behind the decisions our predecessors have made, we are of the view that these earlier reviewers conceived, developed, implemented, and reviewed the GEC with both insight and sound judgment. The Special Committee for Undergraduate Curriculum Review chaired by Gerald Reagan, the Special Committee for Undergraduate Curriculum Review in the Arts and Sciences chaired by Charles Babcock, and the 1995-96 review chaired by Martha Garland served our community and our institution well. In all these cases, colleagues of great experience and commitment to the University and its students came together to create or hone a curriculum of which the University and its graduates could be proud, a curriculum that would contribute to Ohio State University's graduates receiving a degree of which they could be justifiably proud and that would serve them well in the world they were entering. To be sure, UCRC in this report has made a number of recommendations for changes in the GEC and in other areas that affect students' educational experiences. While these recommendations certainly constitute change, they nevertheless, we hope, affirm the wisdom of our predecessors.