Final Report of the Undergraduate Curriculum Review Committee June 2002

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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, as well as its desire to enhance the quality of the educational experience offered to students. After a process of extensive research, broad consultation, and intensive review (see chapter I for overview), the Undergraduate Curriculum Review Committee (UCRC) believes that the recommendations made in this report speak to both of these bases in equal measure.

The Current GEC (chapters II and III)

General education requirements vary greatly across majors and colleges at OSU. While the GEC at OSU is often thought of as requiring 105 credit hours, the reality is that 46% of OSU's graduates have GEC's in the range of 60-85 credit hours. And even these figures are misleading 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, as a result of which the maximum GEC for over 98.38% of our students was 100 credit hours (see chapter II). The extensive variation in GEC credit hours also arises from the fact that each undergraduate degree-granting college works with the Colleges of the Arts and Sciences to develop its own GEC.

Even so, **this range is comparable to most benchmark and top 20 public institutions** (see pages 16-19 and Appendix C pages 72-92). Despite the 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 60-98 credit hour range (the latter number representing the proposed maximum number of credit hours in the Recommended Curriculum) is compared to the ranges of other institutions, we note that **twelve out of eighteen universities in the comparison group require more general education/breadth requirements than does OSU and eight out of nine of our benchmark institutions do so as well.**

Curricular Recommendations (chapter IV)

We recommend that **GEC requirements be stated primarily in terms of courses rather than credit hours and that units be encouraged to offer more three- and four-credit courses.** The implementation of this recommendation will impart considerably more flexibility to the curriculum. Currently undergraduates are penalized for taking non-5 hour GEC courses, which limits their ability to explore new academic areas, causes scheduling difficulties, and otherwise inhibits the flexibility of their curricular plans. Courses with fewer class meetings will be easier to schedule. And such a change will also allow students to schedule more than fifteen credit hours in certain quarters thereby assisting them in their pursuit of timely graduation. This recommendation also takes into account the widely-acknowledged inconsistency between the number of credit hours assigned to a course and the actual work done therein or educational benefit derived therefrom.

Our recommended curriculum is designed to fulfill the Goals of a General Education (page 21) 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 both increased flexibility and greater coherence. If measured in terms of credit hours, this recommended GEC amounts to a reduction of at least seven hours and potentially more as better-prepared incoming students increasingly place out of Basic Competencies requirements and when our recommendation that units develop more 3- and 4-credit replacements for current 5-credit GEC courses is implemented.

Clustering: The proposed curriculum makes significant use of clusters. By the word "cluster," we mean two courses that have an important relationship to each other. Examples might be: 1) two courses, the first of which provides information or skills necessary to the second course, as in the case of a prerequisite; 2) two courses, in which the second course extends the presentation, either in chronology or in depth, of the first; and 3) two courses that treat some common element of either substance or method from differing perspectives. The Humanities/Visual and Performing Arts requirement is not subject to clustering precisely because the goal of this requirement, as we see it, is a breadth of exposure to different disciplines.

We recommend that the University continue a distributional rather than a core system of general education, and that that GEC curriculum consist of **three areas:**

- **Embedded Competencies** (page 24). Every GEC course will be required to document its contribution to the development of the student's facility in speaking and/or writing, critical listening and reading, and logical thinking. Similarly, each major will be required to document its contribution to the development of the student's facility in speaking, writing, critical listening and reading, and logical thinking.

- **Basic Competencies** (pages 24-25). All students will be required to take three Writing courses. They are furthermore expected to demonstrate proficiency in Quantitative Analysis and Data Analysis (two courses), and a foreign language (proficiency equal to the completion of a fourth quarter course). Proficiency in these basic skills is necessary for studies in the Intellectual Core and for success in the world beyond the university. Again, as our selective admissions policy increasingly affects the level of preparedness of our students, we anticipate that many will be able to place out of six of these nine courses.

- **The Intellectual Core** (pages 25-27). Students will take a minimum of 58 credit hours in this category including four courses in Science and Technology (in both the biological and physical sciences, and with two of the courses forming a cluster); three courses in Humanities/Visual and Performing Arts (at least one in literature and one in visual and performing arts); three courses in Social Sciences (from at least two departments, with two of the courses forming a cluster); a two-course History cluster; and either a capstone course or a third writing course. In addition, three of the courses chosen must count as Diversity courses (one of them treating diversity in the United States and one treating international issues).

Credit hour reduction: It will be noted that this curriculum **reduces the maximum GEC by at least seven credit hours** (and potentially more once departments develop an increased number of 3- and 4-credit courses)—two from the Intellectual Core category (which will, however, retain a requirement of a minimum of 58 credit hours) and five by requiring that students take either the third writing course or the capstone course, which has a substantial writing component, but not both. It is important to note in this connection that research repeatedly confirms that the General Education Curriculum does not hinder timely graduation. Instead, as our research in chapter VI shows (pages 35-41), the major impediments to timely graduation are holding time-consuming off-campus jobs, failing to register for enough credit hours per quarter, and dropping too many classes over the course of the student's academic career. Thus, in response to our charge to consider whether or not the current GEC affects time to degree, UCRC concludes that there is no cause-and-effect relationship between the two and that a seven-hour credit reduction is a generous response to the request by some OSU constituencies to further reduce the GEC.

Flexibility: Some of the groups with whom we consulted suggested that the GEC needs to be more flexible and it is to this issue of flexibility that many of UCRC's recommendations are addressed. For instance:

- The reduction in credit hours should *ipso facto* create more flexibility.
- The definition of the GEC in terms of courses rather than credit hours fosters flexibility in that, as academic units develop more three- and four-credit courses, fewer credits will be devoted to the GEC (especially in the Basic Competencies category).
- The recommendation that students be required to take either a third writing course or a capstone also frees up one course in students' schedules for other course offerings either in the major or in electives.
- Almost all 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 in their quest for timely graduation.

Budgetary issues will have a significant impact on the development of this curriculum. We acknowledge that fiscal support will be required to implement our recommendation that all students take either a third writing course or a capstone experience. Nevertheless, these areas were nearly unanimously described throughout our consultations, by students and faculty, as essential parts of a general education curriculum. Similarly, 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 University to provide the level of support that enhancing the quality of undergraduate education deserves (see pages 29-30). It should be noted that the implementation of these two courses will really entail the funding for the implementation of the equivalent of only one course since students will take either one or the other but in almost all cases not both.

Oversight of the GEC: 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 GEC oversight body** to monitor the quality of course offerings, consider new proposals, and periodically review both GEC courses and the GEC itself. We also recommend that the University:

- Address inaccurate perceptions of general education in general and the GEC in particular.
- Publicize the GEC petition process.
- Encourage the offering of faculty-taught GEC courses.
- Improve Graduate Teaching Associate training.
- Offer more sections of over-subscribed GEC courses.
- Increase the variety of times when GEC courses are offered.
- Streamline the GEC course approval process.
- Encourage the addition of upper-level courses to the GEC lists.
- Enforce the University Rule requiring15 hours of free electives in all programs.
- Develop a web-based tool to help students navigate the GEC.
- Identify and publicize advising "best practices."
- Experiment with more effective means of communicating GEC requirements to students.
- Continue to explore a four-year graduation plan.
- Continue to allow Honors students flexibility in meeting the GEC requirements.
- Establish a permanent oversight committee for the GEC.

The GEC and Time to Degree (chapter VI)

Our research, based on information from the Office of The University Registrar and a number of other sources, as well as a survey that we commissioned through the Office of Resource Planning and Institutional Analysis, indicates that **the General Education Curriculum does not hinder timely graduation**. Research further indicates that our students complete approximately 40.9 courses for graduation compared with 45 courses at comparable institutions. Since we have heard from many quarters, including the Provost, 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 the near future and that 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 some of the following:**

- Moving the course drop deadline to much earlier in the quarter.

- Providing more explicit information and curriculum plans in orientation materials so that students are aware as to how they might graduate in a timely manner (see Ancillary Recommendations 10-13).
- Revising credit hour-per-course policies and practices at some point in the near future.
- Developing more three- and four-credit courses.

Consultation (chapter VII)

The Committee **consulted widely across campus with advisors, students, faculty, and administrators** and includes in its 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 becoming one of the truly great educational institutions. 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 compatible with prominent national trends, specifically trends for general education curricula across the nation to be characterized by "an emphasis on the liberal arts and sciences, attention to fundamental skills, high standards, [and] increased structure" (Gaff 207).

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 has, however, become the focus of attention again because of the Ohio State University Academic Plan (2000), which was developed to help the University move forward and become one of the world's truly great institutions of higher education. In October of that year University President, William E. Kirwan, asked the University Senate to form a committee and establish its charge.

This fourteen-member committee, The Undergraduate Curriculum Review Committee (UCRC), was established in January 2001 and included twelve faculty 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 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 debate 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 broad, 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 thorough, 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 (1987) 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 model's categories included

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

Bachelor of Arts (BA) requirements ranged from 19-23 courses or 95-115 credit hours; Bachelor of Science (BS) requirements were 20-22 courses and 100-110 credit hours. Of particular importance 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' Senate and by a vote of the Arts and Sciences faculty.

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, 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, 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 report 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 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 recommendations in its model curriculum address this pressing need as expressed in the Core Values.
- Increasing course accessibility and reducing class size are listed as one of the Plan's six Strategies and Initiatives. In this connection, the Undergraduate Curriculum Review Committee has made a number of ancillary recommendations on both course accessibility and class size.
- 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 or not the current curriculum "may [still] be appropriate for today's better-prepared students." Accordingly, the recommendations contained in UCRC's report are based in considerable part on proficiencies, a strategy that permits better-prepared students to place out of a number of GEC courses. However, the data we examined and much of the consultation we undertook throughout and across the University community convinced us that the current curriculum is not exceptionally long. Thus, in our view, it is and will continue to be appropriate.
- 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.
- It furthermore alludes to the desirability of the "enrollment of more freshmen directly into academic colleges," an initiative already implemented through the facilitation of 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 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 re-design of the first-year program is already well underway. Furthermore, the advising system has been substantially revamped and this report issues recommendations for further improving the advising process and making it more flexible and user-friendly (see Ancillary Recommendations 10-13).
- 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, the GEC credit-hour reduction and the flexibility and use of proficiencies in UCRC's recommended curriculum assist students in graduating within this four-year window.

Thus the report at hand, as the latest in a series of dialogues on the vital function of general education in the university 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 a year and a half. Subcommittees were also 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 (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 the President, 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 (first-year writing), and college advisers from within and outside Arts and Sciences.
- sought input from faculty through two open fora which approximately 100 faculty attended; sought input from undergraduate students through ten focus group

meetings (including one for regional students at the Newark Campus) with a total of approximately 60 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 (time to degree and general education). 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, and the establishment of an oversight mechanism for the GEC. Other related topics included 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.
- discussed the need to develop outcomes assessment for GEC components.

The remainder of this report focuses on the results of the Committee's analyses and its recommendations. A set of appendices provides more detailed information on many of the topical areas.

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 "General Education Requirements 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 we have 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 curriculum committee of the Colleges 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. 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

- the fact 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 in the model.

The data in this table are abstracted from college bulletins and from the formal advising sheets published by departments describing 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, considerable 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 major components that also have been approved for

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 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 71, Kantner 38).

Not evident in this table are those instances in which majors, especially outside the Arts and Sciences, specify that only a subset of the approved course list for a given category may be used to fulfill that requirement, thus restricting their majors to a smaller set 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 the Arts and Humanities and the Diversity requirements.

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 Special Committee for Undergraduate Curriculum Review, the 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 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: Thus 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 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 BA and BS general education curricula for Ohio State University's benchmark institutions and the top twenty public universities according to the U.S. News and World Report rankings. Some institutions within the top 20 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.

In the table below and those that constitute Appendix C, we show a listing of the actual number of hours that were reported by respective institutions as comprising their general education curricula. In most cases we report a range, since the number of hours varies across colleges within institutions. We 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 required (as well as our proposed revision) compares favorably with these. Many universities, like OSU, have college-specific general education curricula. Information about the BA and BS models in our comparison institutions 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. Thus, although it may look unusual, the fact is that some institutions have wide variabilities in how much of their curriculum is devoted to general education.

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 for 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:** This requirement across institutions 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 other 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.)

7. **Diversity:** The concepts of diversity and multicultural education are apparent in 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:** 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 several different areas at these universities. Nonetheless OSU's method of delivery (small, faculty-led classes) is unique.

Based on this research, 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—in terms of the maximum number of credit hours required in general education/breadth courses, twelve out of eighteen of the comparison institutions devote a higher percentage of the total curriculum to general education/breadth requirements than will OSU after implementation of the recommendations in this report. Furthermore, eight out of our nine benchmark institutions do so.

Summary: 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 experience for students at these institutions. While the subject categories required are fairly constant, 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 than those of any of the other institutions within the comparison group.

It is worth repeating that in terms of the maximum number of credit hours required in general education/breadth courses, twelve 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 eight out of OSU's nine benchmark institutions do so as well.

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

B/T**	Percentage of Curriculum Devoted to General Education		*** No. of Hours
B&T	University of Arizona	31-56%	55.5-100.5
T	University of California-Berkeley	28-44%	51-79.5
T	University of California-Davis	18-26%	32-47
T	University of California-Irvine	41-58%	73-104
B&T	University of California-Los Angeles	57%	103
T	University of California-San Diego	31-53%	56-96
T	University of California-Santa Barbara	20-40%	36-72
T	University of Florida	30-44%	54-79.5
T	University of Georgia	55-58%	99-103.5
B&T	University of Illinois-Urbana/Champaign	31-43%	55.5-78
B&T	University of Michigan	34-53%	63-96
B&T	University of Minnesota	34-50%	61.5-90
T	University of North Carolina	32-57%	57-102
B&T	Pennsylvania State University	46-66%	82.5-118.5
B&T	University of Texas-Austin	41-62%	74-111
T	University of Virginia	15-44%	27-79.5
B&T	University of Washington	23-55%	42-100
B&T	University of Wisconsin	28-62%	51-111
	The Ohio State University	31-49%	60-93****

* 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 minus the one foreign language course we are deducting from the listings for all the comparison institutions. This deduction is warranted, we think, especially in light of the fact that more than 98% of OSU's first-quarter freshmen in the Autumn of 2000 and 2001 placed out of at least one quarter of foreign language.

IV. Curricular Recommendations

As Section A below indicates, 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 it was the purpose of a university education 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 genuinely educated person.

This sense of the University's mission to provide one education was also manifest within the Committee itself, where faculty from the Humanities espoused the necessity for extensive training in Natural Sciences and Mathematics and where 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 in which we emphasize the role that the entire University faculty must play in training our students in some of the most fundamental aspects of a quality 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 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 entails

- 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 humanity's achievements in the natural sciences, mathematics, the social sciences, the humanities, and the arts. And it must enable students to be productive members of the world community in keeping with the University's motto "*Disciplina in civitatem*" ("training for citizenship").

Central to an excellent university education is the acquisition by students of certain desirable habits of mind, such as

- an awareness that they should become educated, productive citizens of both their nations and our world as manifest in their ability to interact effectively and ethically with others.
- a consciousness of social and political events and 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
- 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, we believe, 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 a life more richly lived, builds bridges between academic disciplines, encourages continued learning throughout life, 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 the students with the knowledge and experience represented by the best in human thought, expression, and inquiry that several thousand years have brought to our contemporary experience, 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.

The goals of a general education are achieved through the careful articulation of a curriculum that should prepare/enable students to:

1. write and speak with clarity and precision so as to advance thoughts and arguments cogently and persuasively
2. read and listen critically and with comprehension and intellectual curiosity
3. engage in critical analysis and logical thinking
4. understand the processes used in modes of inquiry across varying disciplines
5. understand, evaluate, and present quantitative data and symbolic terms
6. 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
7. know and appreciate the rich variety of creative expression as articulated in literature and imagined and celebrated in the visual and performing arts

8. 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
9. 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
10. achieve an understanding of and develop an appreciation for the cultural diversity and global interdependence of the modern world
11. appreciate and understand other cultures and modes of thinking through facility with at least one language other than English

It will be noted that the goals presented here are extremely similar to (and in some cases identical with) the "Attributes of an Educated Person" as presented in the "Interim Report of the Special Committee for Undergraduate Curriculum Review." In the view of the Undergraduate Curriculum Review Committee and of others across campus, faculty and students, the notion of what constitutes an appropriate and life-enhancing general education has not changed markedly in such a short period of time as the ten years since the GEC was established. Nonetheless certain changes have, of course, taken place that alter how academic disciplines operate. Thus we assume that our students will become technologically literate through science and/or quantitative analysis courses. That said, it remains our conviction that now, as then, our culture expects that an educated person will have certain skills and proficiencies and also have at his or her command a certain body of knowledge and that 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 increased 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 at all its locations). It simply does not seem feasible to require thousands of entering freshmen 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 responsible at this point in time. If the University was unable to implement all aspects of the GEC a decade ago (the universal foreign language requirement, the third writing course, and the capstone course) because of constrained resources, it seemed to us unrealistic to expect that the massive faculty hiring that a core system would necessitate could come to pass.

But 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 us teach lower-level and/or GEC courses) that many if not most of our students come to us (as is the case with almost all institutions around the country) with limited or no experience in certain important areas of intellectual achievement, the knowledge of which is essential to the graduate of a major national 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 clearly demonstrate not only that half the students graduating from US high schools lack fundamental scientific knowledge, but also that US twelfth-graders fare very poorly when their general scientific knowledge is compared to that of equivalent students in other countries. Lastly, our students, generally speaking, do not have what most of the nationwide university community deems adequate training in a foreign language (see Appendix D). Thus, because of the size of OSU's undergraduate population, our current fiscal constraints, the need for students to receive training in a wide variety of disciplines, and the fact that 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 one of the truly great world educational institutions.

D. The Recommended Curriculum

Courses versus Credits: One of the most important curricular changes we recommend is that GEC requirements be rendered in terms of number of courses rather than number of credits so that the proficiencies requirements in the Basic Competencies category and the 58-credit hour minimum in the Intellectual Core category can be met with a combination of three-, four-, and five-credit courses. The definition of the GEC in terms of courses rather than credit hours fosters flexibility (a frequently mentioned desideratum in our consultations—see "Consultation") in that, as academic units develop more three- and four-credit courses, fewer credits will be devoted to the GEC (especially in the Basic Competencies category). In contrast to the current five-credit hour standard system, courses with fewer class meetings will be easier to schedule and it will be easier for students to pick up a few more hours in certain quarters. This improved flexibility may also help students in their quest for more timely graduation. Reduced credit hour courses may also have a beneficial effect in encouraging students to take courses outside their "comfort zone." Or alternatively, students who approach certain subject areas with trepidation may choose to devote fewer of their credit hours to satisfying those requirements and instead take courses/credit hours in areas of interest.

Thus UCRC would encourage units to develop more three- and four-credit courses which would impart greater flexibility to the GEC (and other curricula). While a reduced number of credit hours per course might be disadvantageous in a budget rebasing climate, in that they would result in reduced revenue, that disadvantage might well be offset by increased enrollments since lower credit courses are likely to be quite attractive to students.

As to the curriculum itself, some of the requirements stipulate attainment of certain competencies at particular skills levels or alternatively completion of a particular set of courses. Others specify a certain number of courses (from an approved list) within a particular category. Finally, some of the aims of this curriculum are presumed to be the

responsibility of all programs and their faculty and are to be accomplished as a part of both the General Education Curriculum and the student's major.

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 high-quality university education. This area has no course or credit requirement. Rather each GEC course will document how it strengthens

1. speaking or writing skills
2. critical listening and reading
3. logical thinking

Furthermore each major will document how it strengthens the competencies listed above except that they will address both speaking and writing skills.

II. Basic Competencies: This category serves two educational functions-to provide students with basic skills necessary for their success in the world beyond the University and to prepare them for their studies in the Intellectual Core. Indeed, the success of the educational experience in the Intellectual Core depends in great measure on students' having mastered these basic competencies. This area requires completion of a set of courses or demonstration of a minimum skill level.

1. **Writing**: English 110 or equivalent, and one 367 course, and either an approved third-level writing experience or a capstone course (see II. 6).

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 beyond OSU in serious doubt. We would note too that 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, regardless of their proficiency level, should take three writing courses. (The capstone course does not count as part of the GEC credit hour total because the third writing course, which in many units has been a part of the requirements for the major, can be substituted for it).

2. **Quantitative Reasoning and Data Analysis**:

It is expected that students will bring from high school a foundation for college-level work in this area. In order to demonstrate that foundation, BA students must evince basic computational skills either by having a Mathematics Placement Level of R or higher or by completing Mathematics 075. The GEC requirements for Data Analysis and Quantitative Reasoning are 1) demonstrate data analysis proficiency at the level of Statistics 135 and 2) demonstrate problem-solving proficiency, either by having a Mathematics Placement level of N or higher or by completing a course from the approved list. For the BS, students must demonstrate data analysis proficiency at the level of Statistics 135 and demonstrate mathematical proficiency at the level of Mathematics 152 or equivalent.

This proficiency is intended, in keeping with our Goals, to help students "understand, evaluate, and present quantitative data and symbolic terms." We envision the course list for this category to contain courses that 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. 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 so that students can select the approach (lectures, recitations, laboratories, and computers) that best suits their learning styles. This educational approach has been extremely successful here and has received a positive reaction nationally as well.

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

This proficiency 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 Intellectual Core. 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. 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).

III. The Intellectual Core: The Basic Competencies complement the Intellectual Core. To quote our Goals:

> This part of the undergraduate curriculum acquaints the students with the knowledge and experience represented by the best in human thought, expression, and inquiry that several thousand years have brought to our contemporary experience, one of the functions of this exposure being to challenge the notions and ideas with which the 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.

The requirements for this section are met through completion of a minimum of 58 credit hours (including either a third writing course or a capstone course) and by taking twelve to

thirteen courses (depending upon whether the student is pursuing a BA or a BS) within designated areas. With the current five-credit hour standard, 12-13 courses equates to 60-65 credit hours, but, as we are also recommending the development of more three- and four-credit courses, the student will be able to meet the requirement with 58 credit hours.

Some of the requirements below are defined in terms of "clusters." By the word "cluster," we mean two courses that have an important relationship to each other. Examples might be: 1) two courses, the first of which provides information or skills necessary to the second course, as in the case of a prerequisite; 2) two courses, the second of which extends the presentation, either in chronology or in depth, of the first, or 3) two courses that treat some common element of either substance or method from differing perspectives. (The Humanities and Visual and Performing Arts requirement 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.)

1. **Science and Technology**: four courses (five for BS programs) chosen so that they include study in both the biological and physical sciences and so that at least two of them form a cluster. At least one of these 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 the achievement of scientific literacy. Scientific education gives students the ability to solve complex problems, the ability to use scientific methods to study the problems facing society, and the ability to access, evaluate and utilize information. This requirement, in keeping with our Goals, promotes knowledge about the world and universe around us 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.

2. **Humanities and Visual and Performing Arts**: three courses, at least one in "Literature" and one in "Visual and Performing Arts."

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 as 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.

3. **Social Sciences: Individuals, Society, and Institutions**: three courses (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 should help 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, and still others on their social groupings. For this reason we require that at least two different departments be represented in courses chosen to satisfy this requirement.

4. **Historical Survey**: 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.

5. **Diversity**: three courses which may double-count with any of the above. One of these courses must treat social diversity in the United States and one must treat international issues.

Because all students live in cultures marked by increasing diversity and our own students live in one characterized by, at times, seemingly irresolvable racial difference, the University, as part of its project of training better citizens, has a necessary commitment to enlightening its student population 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.

6. **Capstone Experience:** one capstone course or a third writing course. The capstone is faculty-led and ideally limited to forty students. It further features a significant writing component. Students should have junior or senior standing to enroll.

A capstone course is an in-depth learning experience that focuses on contemporary issues of broad significance, often in an interdisciplinary manner and from a global perspective. The goal of a capstone course is to provide students with a small, faculty-led course in their last few quarters and the opportunity for an in-depth learning experience. At this stage, students can be expected to have completed most of their GEC requirements, allowing them to benefit from a course that addresses a variety of issues that may have arisen in their 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 singularly important contemporary issues.

Credit hour Reduction: The Recommended Curriculum results in a seven credit-hour reduction in the GEC, assuming the current standard of five-credit courses. But that

reduction can be considerably greater depending upon the preparation the student brings from high school. 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 % (per the 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 the entering freshman class must fulfill the full 20-hour foreign language requirement. (But 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: for those students who arrive with a proficiency worth five credits of Quantitative Reasoning and ten credits of Foreign Language (entailing only 25 more credits of work in the Basic Competency category), the Recommended Curriculum would amount to 83 hours, 22 fewer than the BA/BS requirement at present. If a student's preparation in these two areas were even more extensive, he or she would only need 10 credits in the Basic Skills category (all in writing courses), thereby establishing a 68-credit hour GEC. Given the improved high school preparation we should expect as a result of OSU's selective admissions policy, the Recommended Curriculum should result in a GEC that will be in the range of 78-88 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.

We should add here that some students' rationale for shortening the GEC lies in 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 not the case.

E. The Flexibility of the Recommended Curriculum

Nonetheless, a number of the groups with whom we consulted suggested that the GEC needs to be more flexible and it is to this issue of flexibility that many of UCRC's recommendations are addressed. For instance:

- The reduction in credit hours *ipso facto* creates more flexibility.
- The definition of the GEC in terms of courses rather than credit hours fosters flexibility in that, as academic units develop more three- and four-credit courses, fewer credits will be devoted to the GEC (especially in the Basic Competencies category.
- The recommendation to allow students to take either a third writing course or a capstone course (which will have a substantial writing component) imparts flexibility both to students' schedules and range of academic choices and to individual colleges as they develop their separate GECs.
- The Recommended Curriculum's emphasis on proficiencies encourages students who come to OSU with better preparation to test out of these requirements, thereby fostering flexibility in students' programs and lowering considerably the number of

individual courses devoted to the GEC. It further explains more clearly what our expectations are in this area.

- The replacement 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, along with the development of more three- and four-credit courses, more than outweigh the inconvenience that this proposed change may have in terms of flexibility. Rather "clustering" should enhance students' educational experience by providing an opportunity to investigate the same or related subject matter 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. The extent to which students 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 10, along with the "Revised GEC Course List" (available online by August 1) 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.

F. The Cost of the Recommended Curriculum

The interface between this curriculum and both budget rebasing and institutional fiscal constraints has an important role to play here, especially since budget rebasing intensifies "turf wars" between units in their quest for higher enrollments. However, we do think that budget rebasing can support the implementation of this curriculum insofar as the development of more three- and four-credit courses are likely to be more attractive to students because they would increase the flexibility of students' programs with the effect that they can complete the Intellectual Core category with 58 rather than 60 or 65 credit hours and can decrease the number of hours spent fulfilling proficiency requirements.

The Committee thinks that it is vital to the quality of OSU's undergraduate educational mission for the President, the Executive Vice President and Provost, the Senior Vice President of 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 3000 faculty and approximately 48,200 undergraduate students to insist on the full development of the third writing course and the capstone course. As either of these will count towards fulfillment of the last course in the writing sequence, implementation of them equates in terms of fiscal outlay to the implementation of only one course.

These 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). 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). And the faculty in the fora and in the meeting with the GEC instructors repeatedly and emphatically spoke to the poor writing skills of our students and the need for increasing training in this essential skill.

The importance of funding for full implementation of the capstone course is also evident in the fact that both students and advisors consistently reported that the quality of instruction is higher in smaller courses and that students derive greater educational benefit from small course settings. The capstone is only one of three course requirements in the GEC that imposes an enrollment cap thereby assuring the higher quality educational experience students find in small courses.

We would suggest two strategies to move us forward towards the funding of these vital courses:

- The Office of the University Registrar, the Vice President for Enrollment Management, and President Kirwan have repeatedly remarked on the fact that students are coming to OSU better and better prepared, as evidenced by the significant rise in the ACT scores of entering freshmen. Thus it would seem feasible to move funds from the introductory, remedial courses that our less-well-prepared students needed in the past into these more desired and desirable courses—the third writing and capstone classes.

- We request that the Senior Vice President of Business and Finance work together with the Office of Academic Affairs to develop a series of fiscal options as to how these courses, so important to the educational mission of our institution, might be fully implemented.

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. The last of these issues, addressed in number 15, recommends the establishment of an oversight body for the GEC. Such a body is especially important as our consultations repeatedly revealed the need for both a periodic review of all GEC courses and a quality-control mechanism for safeguarding the integrity of the GEC and its offerings, a task far too extensive for the Council on Academic Affairs alone to undertake.

Perception of the GEC within the University Community

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

We endorse 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 that 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 all students currently may petition for a waiver or for alternative means of satisfying 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.

Course Delivery

3) Encourage faculty-taught GEC courses

We reaffirm the observation of the Special Committee for Undergraduate Curriculum Review that it is the responsibility of the faculty to ensure the effective and appropriate delivery of the General Education Curriculum. The focus group feedback from faculty and students recognized the significance of GEC courses, providing breadth across the curriculum, but pointed to the sometimes uneven quality of instruction. We therefore recommend that GEC courses, whenever possible, be staffed by faculty.

4) Improve Graduate Teaching Associate training

It is our obligation as a university to assure that all graduate student instructors are well trained to teach the classes they are assigned. We recommend, therefore, that the University work to improve GTA training across units.

5) Offer more sections of oversubscribed GEC courses

Students reported difficulty getting into sections of some highly enrolled GEC courses, hindering their timely progress to the degree. While recent efforts by the Office of Academic Affairs as well as the new budgeting system are expected to mitigate this problem considerably, we encourage departments having highly-enrolled GEC courses, especially those that form part of a sequence or cluster, to carefully monitor their enrollments and offer more sections as needed.

6) Increase the variety of time of offering

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 conventional hours.

Process

7) Streamline 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 hung up 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.

8) 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 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 minimal prerequisites (beyond writing skills or class standing).

9) Enforce the University Rule requiring 15 hours of free electives in all programs

Following the reports from the Special Committee for Undergraduate Curriculum Review and the Special Committee for Undergraduate Curriculum Review in the Arts and Sciences, we strongly recommend that Faculty Rule 3335-7-06, which requires all undergraduate programs to contain at least fifteen hours of free electives, be enforced.

Advising

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

This tool should contain information on the GEC requirements for each program,

detailed descriptions and prerequisite lists for each course on the individual GEC lists, as well as "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.

11) 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 the quality of advising varies widely across campus. By collecting "best practices" from each unit and publicizing these, the overall level of advising quality may be raised.

12) Experiment with more effective means of communicating GEC requirements to students

Students and advisors often complain that the available GEC course lists are hard to read, with their diamonds and daggers and other "lucky charms." While this was often phrased as a criticism of the double-counting mechanism, we feel that double-counting is too effective a type of requirement for merely presentational problems 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 presentation, namely the Department of Industrial, Interior, and Visual Communications Design to solve this problem.

13) 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 Indiana or Iowa model that will maximize students' possibilities for timely graduation.

Honors Courses

14) 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 three areas of our proposed model curriculum: Competencies, Intellectual Core, and Embedded Competencies. 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 directions.

Oversight

15) Establish a permanent oversight committee for the GEC

We recommend strongly that a permanent GEC oversight committee be established. We envision this committee as having faculty, student, and administrative membership (of whom at least one or two would come from the Colleges of Arts and Sciences Curriculum Committee); it would report to the Council on Academic Affairs. This committee would primarily be responsible for continual oversight of all aspects of the GEC, including but not limited to issues of course quality and consistency. In particular, this committee would develop and implement mechanisms to

- ensure that courses do not deviate substantially from the descriptions that were initially approved.
- regularly assess the GEC both in terms of overall effectiveness and student experience
- monitor the effects of incentive-based budgeting on the GEC, especially ensuring that small, faculty-taught classes are not diminished in number
- conduct outcomes assessments on appropriate GEC courses

Summary: In addition to the curricular recommendations made in the last 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.

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:

1. 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
2. Providing in orientation materials information as to what the average number of credit hours per quarter must be for timely graduation.
3. Providing explicit plans in orientation materials as to how one might graduate on a timely schedule (See Ancillary Recommendations 10-13).
4. Making very clear to students the likely ramifications for time to degree if they are employed more than 20 hours per week.
5. Revising credit hour policies and practices at some point in the near future (see Section C immediately below).
6. 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. Dr. Arkin pointed out a number of pertinent issues in letters provided to the Committee. More recently, President William E. 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 100-level economics course at OSU is very similar to such courses elsewhere, yet the number of credit hours varies among universities. (Later, he informed the chair of UCRC that his office has no immediate plans to conduct an independent analysis of this issue.)

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 coarse 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: It appears that OSU would benefit 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. Since the Provost indicated to the chair of our committee that his office would not be seeking any change in this area soon, UCRC is not making any specific recommendations pertinent to it.

In light of all the research and information above, UCRC recommends that OSU retain its prevalent 191 credit hour requirement for graduation.

VII. Consultation on the GEC

As an important part of its mission, UCRC consulted broadly within the University community, gathering information and opinions 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 University's faculty on two occasions. Also in January, two members of the Committee met with a student focus group on the Newark campus. 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.

We also solicited by e-mail opinions from the entire university faculty, and the chair and several Committee members participated in a forum on the GEC sponsored by the Undergraduate Student Government in Autumn 2001.

As would 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 fro the Honors and Business programs may circumvent these problems through petition or substitution options. Likewise, taking sequenced courses was cited as problematic for students' schedules, especially when 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 few 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 student's 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, about 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), the need for an appraisal of GEC

courses (perhaps a streamlined version of the Arts and Sciences Curriculum Committee review of coursework), alternative delivery of instruction (e.g. classes that meet only one day a week), the need to create 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 5-6, 8, and 10-13 for the Committee's suggestions on this issue.) Other issues noted by one or two 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, simplifying the course approval process, implementing the third writing course, reducing the social science requirement to two courses, providing more seats in Capstone courses, and eliminating the drop-a-course option for BS students in ASC (see Ancillary Recommendations 2-8, 10-11, and 15).

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

Executive Vice President and Provost Edward Ray asked the Committee in 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 (see "The General Education Curriculum at OSU"). Further, the GEC should not disadvantage those who change majors (see "Time to Degree").

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 is premature to speculate about the

relationship between the curriculum and a conversion at this time and that it would be best for the Committee to address its original charge and leave this matter to others.

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. It was reported that Engineering students tend to use peer advice in selecting GEC courses, while ASC 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, focusing 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 2000 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 freshman composition 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 freshmen of the value of general education. Others opined that students between the ages of 18 and 22 might not be developmentally ready for courses about engaging 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 University 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 load.

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 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 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 V.) 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 Andereck 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 proposed substituting computer and information science courses for foreign language courses, especially for BS students. He questioned the need for so much foreign language for BS students, further suggesting there be more overall distinction between the BA and the BS. He also argued that mathematics might be considered a foreign language. He suggested further 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 spoke about the high value his college places on GEC courses. Specifically, he addressed 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 the previous speaker'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 does not favor a reduction in hours, but does advocate making the elective hours more organized. This could take the form of requiring a minor, so that, with better advising, students would 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 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, it is important to move away from simply memorizing facts and towards an understanding of scientific principles and how scientific work is done. Students will 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 reduce it 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 these 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 the 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 80 students would be a reasonable sample size. More than 200 students were contacted by e-mail and by telephone; 60 students actually reported for interviews in Columbus and in Newark. Focus groups ranged in size from one participant to eleven participants. 42 of these students were Caucasian, 7 Asian, 2 African-American, 1 Hispanic, and 8 did not report race/ethnicity. The distribution of these 60 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		
USS	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 since the fact that they are usually still quite early in their educational careers makes it less likely that they have 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 sessions, and the moderators produced a written summary of the responses. Each of the questions and a summary of responses from all ten 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. Individuals in three of the focus groups referred to instructors' lack of fluency in English. And individuals in two 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 fulfill two GEC requirements (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 six of the student focus groups there was consensus that the writing requirement, including the advanced writing requirement, 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). 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 individual focus groups as important to an undergraduate education. Both Visual and Performing Arts and Humanities were also cited as less important GEC requirements. Three focus groups alluded to the, in their view, too-heavy 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 ten focus groups acknowledged that this is both the goal and the effect of the GEC.
- Scheduling: Seven out of ten 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 6), problems in scheduling sequences (see Ancillary Recommendation 5), the need for more courses in general, (see Ancillary Recommendations 5 and 8), 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, seven 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: Seven out of ten 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 six of the student focus groups there was consensus that the writing requirement, including the advanced writing requirement, 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).
- Inconsistency: Five out of ten 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 Ancillary Recommendation 15).
- 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 10-14).
- The GEC's connection to the major: Three out of ten 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, colleges develop a college-specific GEC in conjunction with the Arts and Sciences and the Council on Academic Affairs. Second, they select precisely which courses from the GEC list in (especially) Social Sciences, Humanities, and Visual and Performing Arts their students must choose

from. And third, although it varies from program to program, a large number of 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.

Summary: The Undergraduate Curriculum Review Committee attempted to identify a pool of students representative of the undergraduate population through random but proportional and representative by the Registrar's office. The 60 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 perception 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 and 2) 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. Committee 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 as well as a general education curriculum and with a list of questions intended to initiate discussion. Marilyn Blackwell 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 (giving GEC credit for some appropriate higher level course may be the solution here).

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) just have to acknowledge that theirs are five-year programs. Other faculty member commented on the need to educate students and parents about the long-term value of GECs in employment and in life and 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 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 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, 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 5 and 8), 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:

1. The GEC instructors, and both students and faculty, registered extremely 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).

2. 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 5-8 and 11-13 should alleviate some of this pressure by making it easier to schedule courses. Once these and the revised GEC with its reduced credit hour requirement and its increased clarity as to the role of proficiency in the curriculum 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" (online as of August 1) and master lists of each department's/school's course offerings for the entire academic year will facilitate more informed choices.

3. 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, analytical skills, and diversity requirements.)

4. 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 15.)

5. 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 5-6, 8, and 10-14.)

- The reduction in credit hours *ipso facto* creates more flexibility.

- Our curricular recommendations address the issue of flexibility by recommending a certain number of courses rather than credit hours. This recommendation has the potential to affect the length of the GEC quite significantly (especially in the Basic Competencies category) if departments avail themselves of the opportunity of converting some of their courses from five credits to three or four credits, a development which, given the extent to which, under budget rebasing, revenue will be driven by students' choices of courses, certainly seems likely.
- The recommendation to require students to take either a third writing course or a capstone course (which will have a substantial writing component) imparts flexibility both to students' schedules and range of academic choices and to individual colleges as they develop their separate GECs.
- 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 Recommended Curriculum's emphasis on proficiencies encourages students who come to OSU with better preparation to test out of these requirements, thereby fostering flexibility in students' programs and lowering considerably the number of individual courses devoted to the GEC. It further explains more clearly what our expectations are in this area.
- The implementation of Ancillary Recommendation 10, 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 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.

6. 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 smaller requirement could 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".)

7. 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 15.)

8. There was concern expressed in three of the ten 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 10-13 (on advising) 1-2 (on communication about the GEC) and 5-6 (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 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 one of the truly great 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 consists of a group of Embedded Competencies which will be a part of every GEC course and many courses in the major, a series of Basic Competencies in three areas (some of which the student may bring with him or her from high school and some of which need to be completed here), and an Intellectual Core of 58 credit hours in a wide range of categories. 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 very 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 Hewell'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 a year and a half 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 substantive changes, they nevertheless, we hope, affirm the wisdom of our predecessors.

Appendix A: Selected Readings

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United State Department of Education. "Pursuing Excellence: A Study of U.S. Twelfth – Grade Mathematics and Science Achievement in International Context" (Washington D.C.: U.S. Government Printing Office, 1998).

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Appendix B:
The GEC at OSU

The following tables describe current GEC requirements in different units at OSU. Data were obtained from college bulletins and from the advising sheets published by departments describing the requirements for their majors. In Table III, data were furnished by the associate deans responsible for curricular affairs in each of the colleges.

Table I summarizes the GEC requirements for each major and degree in each college or school. Categories in the GEC are abbreviated (at the top of each table) as: **Writing: 1st, 2nd, 3rd,** for the first, second and third courses, respectively, in the Writing and Related Skills category; **Quant Anal: M & L, Data,** for the Mathematical and Logical Analysis and Data Analysis components, respectively, in the Quantitative and Logical Skills category; **Nat Sci,** for the Natural Science category; **Soc Sci,** for the Social Science category; **Arts & Humanities: History, Other,** for the Arts and Humanities Historical Survey and Analysis of Texts and Works of Art categories, respectively; and **Diversity: US (#), Intern(#),** for the Social Diversity in the US and International Issues components of the Diversity Experiences category. The numbers in the table indicate the number of credit hours required in each category, or (in parentheses) the number of courses in the Diversity Experiences category. Other abbreviations are: **maj**, this category is fulfilled through course(s) taken as part of the major; **yes**, this category is required, but can double count with some other GEC course (0 credit hour requirement); **no**, not required. A range of credit hours indicates that a specific level of proficiency is required, or that courses with differing numbers of credit hours can satisfy the requirement.

Table II compares the credit hours corresponding to GEC requirements with the other requirements in each major. Prerequisites in each of the majors were recalculated to exclude courses that could count towards GEC requirements. **Tech Elect** refers to "technical electives," required courses that supplement the major. **Free Elect** stands for "free electives."

Table III compares the GEC requirements for each major and degree to those of the Arts and Sciences B.A. degree. Abbreviations are as in Table I. A blank in a column signifies the requirement is identical to the Arts and Sciences BA. Whereas Table I highlights similarities among GEC requirements across colleges, Table III emphasizes the differences between colleges.

Table I - GEC REQUIREMENTS BY COLLEGE /SCHOOL AND DEGREE

Coll/Sch & degree	Writing 1st	Writing 2nd	Writing 3rd	Quant Anal M & L	Quant Anal Data	Nat Sci	Soc Sci	Arts & Humanities History	Arts & Humanities Other	Diversity US (#)	Diversity Interntl(#)	Foreign Lang.	597	Tot GEC
AHR														
BS Arch	5	5	no	10	maj	19	15	12	13	no	no	no	no	79
BS Larch	5	maj	maj	10	5	20	15	10	15	no	no	no	5	85
AMP - BS in AHP	5	5	no	5	no	25	15	10	15	yes	yes(2)	no	no	80
ARTS - BFA														
Art	5	5	maj	4-5	5	15	15	10	10	yes	5	no	no	74-75
Dance	5	5	no	no	5	15	15	5	10	yes	yes	no	no	60
ARTS - BAEd	5	5	maj	4-5	5	20	15	10	10	yes	yes	no	no	74-75
ARTS - BSDesign	5	5	maj	5	5	15	15	10	15	yes	yes	no	no	75
ARTS - BMEd	5	4	no	no	5	15	15	8-10	10	yes	yes	no	no	71-73
ARTS - BMus														
Composition	5	5	no	4-5	5	15	15	19	15	yes	yes	no	no	83-84
Jazz Studies	5	5	no	4-5	5	15	15	14	10	yes	yes	no	no	73-74
Music History	5	5	no	4-5	5	15	15	19	8-10	yes	yes	0 - 20	no	76-99
Music Theory	5	5	no	4-5	5	15	15	19	13-15	yes	yes	no	no	81-84
Performance	5	5	no	4-5	5	15	15	14	8-10	yes	yes	no	no	71-74
Voice	5	5	no	4-5	5	15	15	14	8-10	yes	yes	0 - 15	no	72-88
ASC - BA	5	5	no	4-5	5	20	15	10	15	yes	yes(2)	0 - 20	5	84-85
ASC - BA in Jur	5	5	no	4-5	5	20	15	10	15	yes	yes(2)	0 - 20	5	84-105
ASC - BS	5	5	no	10	no	25	15	10	5	yes	yes(2)	0 - 20	5	85-105
BUS - BSBA														
All except Intl Bus	5	5	maj	8-10	13	20	15	10	15	yes	yes	no	5	96-98
Intl Bus major	5	5	maj	8-10	13	20	15	10	15	yes	yes	0 - 20	5	96-113
DHY- BS in DHY	5	5	maj	4-5	maj	35	15	10	15	yes	yes	no	no	89-90
EDUC-BS in Edu														
EMCE	5	5	no	5	5	20	15	10	15	yes	no	no	no	80
Exercise Sci	5	5	no	5	5	20	15	10	15	no	no	no	no	80
Spl Ed	5	5	no	5	5	20	15	10	15	no	no	no	no	80
Sport & Leisure	5	5	5	5	5	20	15	10	15	no	no	no	no	85
Tech Ed & Tmg	5	5	no	5	5	20	15	10	15	no	no	no	no	80
Technol Ed	5	5	no	4-5	5	20	15	10	15	no	no	no	5	84-85

Table I - GEC REQUIREMENTS BY COLLEGE /SCHOOL AND DEGREE

Coll/Sch & degree	Writing 1st	Writing 2nd	Writing 3rd	Quant Anal M & L	Quant Anal Data	Nat Sci	Soc Sci	Arts & Humanities History	Arts & Humanities Other	Diversity US (#)	Diversity Internl(#)	Foreign Lang.	597	Tot GEC
ENG-BS in Eng	(Note: College core requires 35 hours of math & nat. sci of all majors)													
Aero & Astro	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Aviation	5	5	maj	20	5	15	9	10	9	yes	no	no	no	78
Ceramic	5	5	maj	20	3	15	9	10	9	yes	no	no	no	76
Chemical	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Civil	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
CSE	5	5	maj	20	6	15	9	10	9	yes	no	no	no	79
EE	5	5	maj	20	3	15	9	10	9	yes	no	no	no	76
Environ	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Eng Physics	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
FABE	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Geomatics	5	5	maj	20	6	15	9	10	9	yes	no	no	no	79
ISE	5	5	maj	20	6	15	10	10	9	yes	no	no	no	80
Materials Sci	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Mechanical	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Metallurgical	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Welding	5	5	maj	20	maj	15	9	10	9	yes	no	no	no	73
Food, Ag & Envir	(Note: FAES requires an oral expression course)													
BS in Agr	5	5	maj	4	maj	25	15	5	15	yes	yes(2)	no	5	79
BS in Food Sci	5	5	maj	10	maj	25	15	5	15	yes	yes(2)	no	5	80
BS in Nutrition	5	5	maj	10	5	20	15	10	15	yes	yes	no	5	90
BS in Nat Res	5	5	maj	10	5	20-25	15	10	15	yes	yes(2)	no	5	90-95
Human Ecology														
BS in HEc & in HM	5	5	3-5	4-5	5	20	15-20	10	15	yes	yes(2)	no	no	75-90
BS in Nutrition	5	5	3-5	10	5	20	15	10	15	yes	yes(1)	no	5	93-95
Nursing - BSN	5	5	no	4-5	5	20	15	10	15	yes	no	no	no	79-80
Soc Work-BSSWk	5	5	maj	5	maj	20	15	10	15	yes	yes(2)	no	no	75

Table II - DEGREE REQUIREMENTS BY MAJOR WITHIN COLLEGE/SCHOOL

College/School	GEC Hrs.	Prereq	Major	Tech. Elect.	Free Elect.	TOTAL *
AHR						
Architecture	79	9	84	10	13	195
Landscape Architecture	85	4	95	5	10	199
AMP						
Athletic Training	80	16	96	0	3	195
Circulation Technology	80	10	119	0	0	209
Health Information Mgt	80	15	94	0	5	194
Medical Dietetics	80	30-32	92	3-5	5	210-214
Medical Technology	80	29-31	91	0	0	200-202
Occupational Therapy	80	22	80	3-11	0	185-193
Radiation Technology	80	15	98	0	3-5	196-198
Respiration Technology	80	24	101	0	0	205
ART [tagged degrees]						
Art Education	74-75	35	51	18	15	193-194
Industrial Design	75	30-34	75	18	0	198-202
Interior Design	75	27-29	78	3	12	195-197
Visual Commun Design	75	34-38	78	8	0	195-199
ART [BFA Programs]						
Art	74-75	3	66	47	0	191
Dance	60	1	48	65	22	196
ART [Music Programs]						
Composition	83-84	0	107	13	0	203-204
Jazz Studies	73-74	0	119	4	0	196-197
Music Education	71-73	10-12	71-76	40-45	0	199-206
Music History	76-99	0	84	19	0	181-202
Music Theory	81-84	0	78	20	13	192-195
Performance - Orchestra	71-74	0	89	34	0	194-197
Performance - voice	72-88	0	91	31	0	194-210
ASC						
[ART - BA Programs]						
Art	85-105	17	73-78	0	15-21	196-215
History of Art	85-105	0	60	0	15	191
Music	85-105	0	70	0	1	191
Theatre	85-105	0	64	0	22-42	191
[Biol Sci - all BA/BS]						
Biochemistry	84-105	30-35	56	0	0-26	191-196
Biology	84-105	40-45	45	0	1-27	191-196
Entomology	84-105	35-40	45	0	6-32	191-196
Evol., Ecol, & Org. Biol.	84-105	26-31	45	0	15-41	191-196
Microbiology	84-105	38-43	40	0	8-34	191-196
Molecular Genetics	84-105	40-45	40	0	6-32	191-196
Plant Biology	84-105	33-38	40	0	13-39	191-196
Zoology	84-105	31-36	45	0	10-36	191-196

* Note: Entry in "TOTAL" column is minimum requirement, NOT the sum of other columns

Table II - DEGREE REQUIREMENTS BY MAJOR WITHIN COLLEGE/SCHOOL

College/School	GEC Hrs.	Prereq.	Major	Tech. Elect.	Free Elect	TOTAL *
[Humanities - all BA]						
Afr/Amer & African Studies	84-105	0	40	0	15	191
Ancient Hist & Classics	84-105	0	50	0	15	191
Arabic	84-105	0	55	0	15	191
Chinese	84-105	0	60	0	15	191
Comparative Studies	84-105	0-15	55	0	15	191
English	84-105	0	60	0	15	191
French	84-105	5	50	0	15	191
German	84-105	5	46	0	15	191
Hebrew	84-105	0	45	0	15	191
History	84-105	0	50	0	15	191
Islamic Studies	84-105	0	60	0	15	191
Italian	84-105	0	50	0	15	191
Japanese	84-105	5	55	0	15	191
Jewish Studies	84-105	0	50	0	15	191
Linguistics	84-105	5	40-45	0	15	191
Medieval & Renaissance	84-105	0	55	0	15	191
Modern Greek	84-105	0	40	0	15	191
Philosophy	84-105	0	45	0	15	191
Portuguese	84-105	0	50	0	15	191
Russian	84-105	5	43-45	0	15	191
Spanish	84-105	9	50	0	15	191
Women's Studies	84-105	0	45	0	15	191
[Math & Phys Sci]						
Actuarial Sci - BA/BS	84-105	20-25	52-53	0	0	191
Astronomy - BS	84-105	20	59	0	15	195
Chemistry - BA	84-105	25	42	0	15	191
Chemistry - BS	84-105	25	55	0	15	196
CIS - BA	84-105	18	45	21-25	15	202
CIS - BS	84-105	29	45	21-25	15	201-205
Geol Sci - BA	84-105	23	43	0	15	193
Geol Sci - BS	84-105	24-29	40	0	15	198-205
Math - BS	84-105	14	40-46	15	15	191
Math - Act. Sci.	84-105	20-25	52-53	0	15	191
Physics - BS	84-105	20	64	0	15	200
[Soc & Beh Sci]						
Anthropology - BA	84-105	15	40	0	15	191
Aviation - BA/BS	84-105	5-10	50-51	6	15	191
Communication	84-105	10	40	0	15	191
Criminology - BA	84-105	0-5	45-50	0	15	191
Economics- BA	84-105	5	50	0	15	191
Economics - BS	84-105	5	70	0	15	191
Geography - BA/BS	84-105	5-20	52-58	0	15	191
International Studies - BA	84-105	0	50	10	15	191
Journalism - BA in Jur	84-105	0-5	40	0	15	191
Political Science - BA	84-105	0	45	0	15	191
Psychology - BA/BS	84-105	0-10	48	0	15	191
Sociology - BA	84-105	0-5	45-50	0	15	191
Speech & Hrng Sci - BA	84-105	20	45	13-14		191

* Note: Entry in "TOTAL" column is minimum requirement, NOT the sum of other columns

Table II - DEGREE REQUIREMENTS BY MAJOR WITHIN COLLEGE/SCHOOL

College/School	GEC Hrs.	Prereq.	Major	Tech. Elect.	Free Elect	TOTAL *
BUS (all BSBA)						
Accounting	96-98	19	69	0	0	196
Aviation Management	96-98	19	67	0	0	196
Economics	96-98	19	63	0	0	196
Finance	96-98	19	64-65	0	0	196
Human Resources	96-98	19	60-61	0	0	196
Information Systems	96-98	19	65-67	0	0	196
International Business	96-98	19	59	0	0	196
Marketing	96-98	19	62	0	0	196
Operations Management	96-98	19	58	0	0	196
Real Estate & Urban Anal	96-98	19	58-60	0	0	196
Risk Mgt & Insurance	96-98	19	58-59	0	0	196
Transport & Logistics	96-98	19	58-60	0	0	196
DHY						
BS in Dent Hygiene	89-90	15	84	13	0	196
EDU (all BSEd)						
EMCE	80	5	54-56	8-15	0	196
Exercise Sci	80	0	85	18-23	8-13	196
Special Education	80	7-13	62	22	0	196
Sport & Leisure Studies	80	5	45	51	0	196
Technical Ed & Training	80	0	58	24-49	0	196
Technology Education	80	0	70	21	0	196
ENG (all BS in Eng)	(coll core requires 35 hours of math & nat sci of all majors)					
Aero & Astro	73		99	9	0	189
Aviation	78		67	40	3	190
Ceramic	76		103	12	0	195
Chemical	73		103	18	0	200-201
Civil	73		70	27	0	200
Computer Science	79		87	23	0	196
Electrical & Computer	76		76	43-49	0	199
Environmental	73		70	27	0	200
Engineering Physics	73		85	30	0	194
Food, Ag & Biological	73		92	26	0	197
Geomatics	79		95	22	0	196
Indust & Systems	80		103	16	0	199
Materials Sci	73		101	15	0	195
Mechanical	73		101	15	0	195
Metallurgical	73		101	15	0	195
Welding	73		96	21	0	196

* Note: Entry in "TOTAL" column is minimum requirement, NOT the sum of other columns

Table II - DEGREE REQUIREMENTS BY MAJOR WITHIN COLLEGE/SCHOOL

College/School	GEC Hrs.	Prereq.	Major	Tech. Elect.	Free Elect (minor)	TOTAL *
FAES						
[BS in Ag Programs]						
Agribus & Appl Econ	79	0	61-65	12-27	20-25	190
Ag Communication	79	0	60-65	10-33	20-25	190
Ag Education	79	0	55-65	10-33	20-25	190
Ag & Const Sys Mgt	79	0	55-65	10-31	20-25	190
Animal Sci	79	0	55-65	10-33	20-25	190
Crop Sci	79	0	55-65	10-31	20-25	190
Food Bus Mgt	79	0	55-65	10-31	20-25	190
Landscape Hort	79	0	65	10-21	20-25	190
Plant Health Mgt	79	0	55-65	10-33	20-25	190
Turfgrass Sci	79	0	55-65	10-31	20-25	190
[BS in Food Sci]						
Food Science	80	34	55-65	0	9-19	190
[BS in Nutrition]						
Nutrition	90	0	50-58	20-25	18-31	196
[BS in Natural Resources]						
Environ Sci	90-95	16-18	63	5	20	190
Fisheries & Wildlife Mgt	90-95	16-18	63	5	20	190
Forestry & Urban Forestry	90-95	16-18	63	5	20	190
Human Dimensions	90-95	16-18	63	5	20	190
HEC						
[BS in HEc Programs]						
Hum Devel & Fam Sci	82-90	5	55	31	14-20	191
Family Resource Mgt	75-80	5	66-69	12-15	7-24	191
Hum Nut & Food Mgt	83-84	0	38-40	35	25-27	196
Textiles & Clothing	79-80	5	68-78	30	4-24	191
[BS in Hosp Mgt]						
Hospitality Mgt	80-85	3	52	42	9-14	191
[BS in Nutrition]						
Nutrition	93-95	5	56	28-31	14-21	191
NRS						
Nursing	79-80	10	96	0	9-10	196
SWK						
Social Work	75	15	60-66	0	29	180

* Note: Entry in "TOTAL" column is minimum requirement, NOT the sum of other columns

Table III - COMPARATIVE GEC REQUIREMENTS BY COLLEGE/SCHOOL AND DEGREE

(Note: Comparison is with BA requirements in ASC. Empty cells indicate a requirement identical to ASC BA.)

College & degree	Writing 1st	Writing 2nd	Writing 3rd	Quant Anal M & L	Quant Anal Data	Nat Sci	Soc Sci	Arts & Humanities History	Arts & Humanities Other	Diversity US (#)	Diversity Internl(#)	Foreign Lang.	597	Tot GEC
ASC - BA	5	5	0-5	4-5	5	20	15	10	15	yes	yes	0 - 20	5	84-105
AHR														
BS Arch			no	10	maj	19		12	13	no	no	no	no	79
BS Larch		maj	maj	10						no	no	no		85
AMP - BS in AHP			no	5	no	25						no	no	80
ARTS - BFA														
Art			maj			15			10		5	no	no	74-75
Dance			no	no		15		5	10			no	no	60
ARTS - BAEd			maj						10			no	no	74-75
ARTS - BSDesign			maj	5		15						no	no	75
ARTS - BMEd		4	no	no		15		8-10	10			no	no	71-73
ARTS - BMus														
Composition			no			15		19				no	no	83-84
Jazz Studies			no			15		14	10			no	no	73-74
Music History			no			15		19	8-10				no	76-99
Music Theory			no			15		19	13-15			no	no	81-84
Performance			no			15		14	8-10			no	no	71-74
Voice			no			15		14	8-10			0 - 15	no	72-88
ASC - BA in Jur			no											
ASC - BS				10	no	25							no	85-105
BUS - BSBA														
All except Intl Bus			maj	8-10	13							no		96-98
Intl Bus major			maj	8-10	13									96-113
DHY- BS in DHY			maj		maj	35						no	no	86-90
EDUC-BS in Edu														
EMCE			no	5							no	no	no	80
Exercise Sci			no	5						no	no	no	no	80
Spl Ed			no	5						no	no	no	no	80
Sport & Leisure			5	5						no	no	no	no	85
Tech Ed & Trng			no	5						no	no	no	no	80
Technol Ed			no							no	no	no		84-85

Table III - COMPARATIVE GEC REQUIREMENTS BY COLLEGE/SCHOOL AND DEGREE

(Note. Comparison is with BA requirements in ASC. Empty cells indicate a requirement identical to ASC BA.)

College & degree	Writing 1st	Writing 2nd	Writing 3rd	Quant Anal M & L	Quant Anal Data	Nat Scl	Soc Scl	Arts & Humanities History	Arts & Humanities Other	Diversity US (#)	Diversity Interntl(#)	Foreign Lang.	597	Tot GEC
ASC - BA	5	5	0-5	4-5	5	20	15	10	15	yes	yes	0 - 20	5	84-105
ENG-BS in Eng														
Aero & Astro			maj	20	maj	15	9		9		no	no	no	73
Aviation			maj	20		15	9		9		no	no	no	78
Ceramic			maj	20	3	15	9		9		no	no	no	76
Chemical			maj	20	maj	15	9		9		no	no	no	73
Civil			maj	20	maj	15	9		9		no	no	no	73
CSE			maj	20	6	15	9		9		no	no	no	79
EE			maj	20	3	15	9		9		no	no	no	76
Environ			maj	20	maj	15	9		9		no	no	no	73
Eng Physics			maj	20	maj	15	9		9		no	no	no	73
FABE			maj	20	maj	15	9		9		no	no	no	73
Geomatics			maj	20	6	15	9		9		no	no	no	79
ISE			maj	20	6	15	10		9		no	no	no	80
Materials Sci			maj	20	maj	15	9		9		no	no	no	73
Mechanical			maj	20	maj	15	9		9		no	no	no	73
Metallurgical			maj	20	maj	15	9		9		no	no	no	73
Welding			maj	20	maj	15	9		9		no	no	no	73
Food, Ag & Envir														
BS in Agr			maj	4	maj	25		5				no		79
BS in Food Sci			maj	10	maj	25		5				no		80
BS in Nutrition			maj	10								no		90
BS in Nat Res			maj	10		20-25						no		90-95
Human Ecology														
BS in HEc & in HM			3-5				15-20					no	no	75-90
BS in Nutrition			3-5	10								no		93-95
Nursing - BSN			no									no	no	79-80
Soc Work-BSSWk			maj	5	maj					5		no	no	75

Appendix C:
General Education Requirements At Benchmark and Top-Twenty Public Universities

The following is a summary of requirements that are comparable to OSU's GEC at the benchmark and top twenty publics universities according to U.S. News and World Report's rankings. Every effort has been made to assure the accuracy of theses data. Three institutions that fall into the top twenty—Georgia Institute of Technology, The College of William and Mary, and Texas A & M—are not represented here because either their extremely specific academic missions or their size render them, in our view, inappropriate as comparison universities.

Comparability: Achieving true comparability between and among institutions so varied in their curricular structures is virtually impossible. In this group of nineteen institutions, various considerably different models prevail. Among them are:

- An Arts and Sciences-based model on the basis of which individual colleges establish their own sets of requirements (as is the case at OSU)
- A reasonably broad university-wide requirement onto which colleges (especially but not exclusively arts and sciences colleges) impose additional "breadth" requirements
- A university-wide requirement to which individual majors add further breadth requirements
- A bare-bones core curriculum on top of which either individual colleges or individual majors add breadth requirements
- No university-wide requirement, but rather individual discipline-based college requirements
- No university-wide requirement, but rather individual non-discipline-based college requirements
- Two sets of general education requirements, one for arts and sciences and one for non-arts and sciences colleges

In addition to these variations, there are considerable discrepancies in how colleges of arts and sciences requirements are structured: in some institutions, arts and sciences BA and BS general education requirements are the same; in others they differ, sometimes markedly.

Given this miasma of curricular structures, it is impossible to speak of a single general education requirement equivalent that applies to all these institutions. Furthermore, as chapter II indicates, OSU itself does not have a unitary GEC; rather we have multiple GECs that range from 60 to 105 credit hours. Thus, we have presented here as "comparable requirements" the range of the fewest general education/breadth requirements to the highest. The low end of the range usually represents either a) the basic general education requirement below which no college is permitted to go or b), when colleges vary, one of the professional colleges, often Engineering. The high end is usually represented by the college of arts and sciences BA and/or BS, an especially appropriate measure, in our view, since more than half our students graduate in Arts and Sciences.

Foreign language requirement listings: Like OSU, most of these universities have a proficiency-based rather than a credit hour foreign language requirement. In order to accommodate this, we have listed a range of credit hours in the curricula, from the number of credits for just one foreign language course to the number of credits required to fulfill the total proficiency. This

decision is predicated on the assumption that most high school graduates will come to the university with at least one course worth of proficiency in a foreign language. So, the University of Illinois, for example, which has a university-wide third semester proficiency requirement and where each foreign language course is worth four credit hours, will be listed as requiring 4-12 semester credit hours.

University of Arizona

(semester system)

University-Wide general education and foundations courses:

I. Tier One (to be taken by end of second year):

Individuals and Societies		6 credits
Natural Sciences		6
Traditions and Cultures		6
	Tier One Total:	18

II. Tier Two (to be taken by graduation):

Arts		3
Humanities		3
Individuals and Societies		3
Natural Sciences		3
	Tier Two Total:	9-12*

III. Gender, Race, Class, Ethnicity, or non-Western Area Studies— fulfilled by a designated Tier One or Tier Two course, or another in major or minor 0

IV. Foundations:

Math		3
Composition—1, 2, or 3 courses (dependent on placement)+ + proficiency exam + a writing emphasis course		3-9
Foreign Language—(2nd semester proficiency for non-BAs)		4-8
	Foundations Total:	10-20
	Total University-Wide Requirements	**37-50**

BA Additional Requirements:

Writing and Oral Communication		3
Foreign Language (4th semester proficiency)		8
Technology and Environmental and Social Impact		3
Politics, Philosophy, and Economics		3
Civilization Sequence		6
Capstone		3
	Total Additional BA Requirements	**26**

Total Comparable Requirements 37-76

* students in Engineering, Renewable Natural Resources, and Health Professions can satisfy Tier Two with: Arts and Humanities, 3 credits; Individuals and Societies, 3 credits; Natural Sciences, 3 credits

University of California-Berkeley

(semester system)

System-Wide requirements	
Subject A (reading and writing skills)	4*
American History & American Institutions	8-12*

* as throughout the California system, these are expected to be taken in high school but nonetheless are consistently referred to as "university requirements." They are not included here or for any of the other California system schools in the credit hour total.

University-Wide Requirements	
American Cultures	3
Quantitative Reasoning	3
Breadth of Knowledge**	
Arts and Literature	4
Biological Science	4
Historical Studies	4
International Studies	4
Philosophy and Values	4
Physical Science	4
Social and Behavioral Science	4
Total University-Wide Requirements:	**34**

**All these requirements are expressed in terms of "one course in" where the minimum credit is two units. Most courses that fulfill these "Breadth of Knowledge" requirements are four units, so that is used above.

Arts and Sciences BA/ BS also requires:	
Foreign language (2nd semester proficiency)	5-10
One more Quantitative Reasoning courses	3
Two more Reading/Composition courses	6
BA/BS Additional Requirements:	**14-19**

Total Comparable Requirements: 34-53

University of California-Davis
(quarter system)

System-Wide requirements (usually satisfied in high school)		
Subject A (reading and writing skills)	4	
American History & American Institutions	8-12	
University-Wide Requirements		
Topical Breadth (6 courses in two of the following, the two in which the student is not majoring):	24	areas
Arts and Humanities		
Science and Engineering		
Social Sciences		
Social-Cultural Diversity (1 course)	4	
Writing Experience (1 course)	4	
Total University-Wide Requirements	**32**	
BA & BAS also requires:		
Foreign language (3rd quarter proficiency, not applicable to BS)	5-15	
Upper Division English Composition Exam		
Additional BA/BAS Requirements	**5-15**	

Total Comparable Requirements 32-47

College of Engineering University-Wide + Breadth Requirements 42-54

University of California-Irvine
(quarter system)

System-Wide requirements (usually satisfied in high school)	
Subject A (reading and writing skills)	4
American History & American Institutions	8-12
University-Wide General Education Breadth Requirements:	
Writing (3 courses)	12
Natural Sciences (3 course combination)	12
Social and Behavioral Sciences (3 course combination)	12
Humanistic Inquiry (3 course combination)	12
Mathematics and Symbolic Systems (3 courses)	12
Language Other Than English (4th quarter proficiency)	5-18
Multicultural Studies and International/ Global Issues (4 credits of each)	8
Total University Requirements	**73-86**
BA/BS programs require additional non-major ASC course work averaging*	**15-18**
Total Comparable Requirements	**73-104**

* For instance, the College of Humanities requires two more quarters of foreign language (6 credit hours) and a three-quarter "Humanities Core Course" (12 credits).

University of California-Los Angeles

(quarter system)

System-Wide requirements (usually satisfied by high school)	
Subject A (reading and writing skills)	6
American History & American Institutions	8-12
University-Wide General Education Requirements:	
I. First-Year Cluster (three courses) (includes composition)	15
II. Foreign Language (three courses)	15
III. Quantitative Reasoning (one course)	5
IV. Seven courses arranged in three clusters of 2-5 courses apiece	35
Total University-Wide Requirements	**55**
College of Letters and Sciences Additional Requirements:	
Ten courses (48 units) in three Foundation Areas of Knowledge:	
Arts and Humanities (three courses minimum)	
Society and Culture (three courses minimum)	
Scientific Inquiry (three courses minimum)	
Total CLS Additional Requirements	**48**
Total Comparable Requirements	**103**

University of California-San Diego

(quarter system)

System-Wide requirements (usually satisfied by high school)	
Subject A (reading and writing skills)	6
American History & American Institutions	8-12

There are five undergraduate colleges but they are not organized according to traditional disciplines. Each has its own set of General Education Requirements.

Revelle College

Interdisciplinary humanities program (sequence includes intensive writing)	20	
Fine arts	4	
Social sciences	12	
Math (including calculus)	12	
Physical and biological sciences	20	
Foreign language (fourth quarter proficiency)	4-16	
Plus 3 courses unrelated to major	12	
		Total 84-96

Thurgood Marshall College

Dimensions of culture (3-course sequence includes 2 courses of intensive writing)	12	
Public service (4 courses (optional)	16	
Biology, chemistry, physics	12	
Math (or statistics + computing or logic)	8	
Humanities	8	
Fine arts	4	
Plus 20 credits from all these areas (but only 15 for engineering students)	15-20	
		Total 75-80

Earl Warren College

Writing	4	
Ethics and Society	4	
Calculus, computing, statistics, logic	8	
Programs of Concentration (unrelated to major)	48	
Cultural Diversity (can cross-count)		
		Total 64

Eleanor Roosevelt College			
Humanities, social sciences, writing	30		
Natural sciences	8		
Quantitative Reasoning	8		
Foreign language (4th quarter proficiency)	4-16		
Fine arts	8		
Specialization in one region of the world	12		
Upper-Division Writing (can cross-count)			
		Total	**70-82**
John Muir College			
Writing	8		
Social Sciences	12		
Natural Sciences and Math	12		
Humanities, Fine Arts, and Foreign Language	24		
		Total	**56**

Total Comparable Requirements 56-96

University of California-Santa Barbara

(quarter system)

System-Wide Requirements (usually satisfied by high school)

Subject A (reading and writing skills)	6
American History & American Institutions	8-12

There is no university-wide general education requirement at UC-Santa Barbara.

College of Letters and Sciences (BA, BS, BFA, B Music)

General Education Requirements	BA	BS	Others
Area A: English Reading and Comprehension	8	8	8
Area B: Foreign Language (3^{rd}–4^{th} quarter proficiency)	4-12	4-12	4-12
Area C: Science, Mathematics, and Technology	12	12	8
Area D: Social Science	12	8	8
Area E: Civilization and Thought*	12	8	8
Area F: Arts	8	4	8*
Area G: Literature	8	4	4
	64-72	48-56	48-56

Total BA/BS/BFA/BMusic Requirements 48-72

* One course in a non-western culture and at least one course that focuses on the history and cultural, intellectual, and social experience of designated U.S. ethnic groups is required.
** Covered by the major

College of Engineering

Writing	8
Area C	12***
From Areas D, E, F, and G	16-30

*** Covered by the majors.

Total Engineering General Education Requirements 36-50

Total Comparable Requirements 36-72

University of Florida
(semester system)

University-Wide General Education Requirements:

Composition	3
Mathematical Sciences	6
Humanities	9
Social and Behavioral Sciences	9
Physical and Biological Sciences	9

Total University-Wide Requirements 36

College of Letters and Sciences Requirements (BA & BS)*

Composition	6
Mathematical Sciences	6
Humanities	9
Social and Behavioral Sciences	9
Physical Sciences	6
Biological Sciences	6
Science Laboratory	1
Foreign Language (2nd semester proficiency)	5-10

*includes University General Education Requirements

Total Letters and Sciences General Education Requirements 48-53

Total Comparable Requirements 36-53

University of Georgia

(semester system)

I. University-Wide Core Curriculum:

At least 60 hours of which 42 are in general education and 18 in major-related courses

Area A: Essential Skills	9-10
English and math courses common throughout the university system	
Area B: Institutional Options	4-5
Area C: Humanities/Fine Arts	6
Area D: Science, Mathematics and Technology	10-11
(two science courses and one mathematics/technology course)	
Area E: Social Sciences	12
(four courses which may also satisfy a history and constitution requirement)	
Area F: Courses Related to the Program of Study*	18

* This is course work that supports the major but is not a part of it, e.g. foreign language (2^{nd}-4^{th} semester proficiency) for the Journalism, Social Work, and International Business majors as well as for most arts and sciences BA/BS degrees and many Education degrees.

Core Curriculum Requirements	**60**

Additional University-Wide Requirements:

Environmental Literacy Requirement (1 course)	3
Examinations on the Constitutions*	
Examinations on United States and Georgia History*	
* If the student cannot pass these exams, he or she must take 3 hours of specific History courses--2111 or 2112	3-6
Additional University-Wide Requirements	**6-9**

Total Comparable Requirements 66-69

University of Illinois at Urbana/Champaign

(semester system)

University-Wide General Education Requirements:

Composition I	3-6
Advanced Composition	3
Social and Behavioral Sciences	6
Humanities and the Arts	6
Western Culture	3
Non-Western or American Minority Culture	3
Foreign Language (3rd semester proficiency)	4-12
Natural Sciences and Technology	6
Quantitative Reasoning	3
Total University-Wide Requirements	**37-48**

BA/BS degrees in arts and sciences require an additional course to equal 4th semester foreign language proficiency 4

Total Comparable Requirements 37-52

University of Michigan

(semester system)

College of Literature, Science, and the Arts Requirements BA/BS degrees:

Writing	6-10
Foreign Language (4th semester proficiency)	5-16
Quantitative Reasoning	3-4
Race and Ethnicity	3-4
30 credits in:	30
Humanities	
Natural Sciences	
Social Sciences	
Total College of Literature, Science, and the Arts Requirements	**47-64**

Non-LSA college distribution requirements*:

Writing	6-7
Humanities	12
Natural Sciences	12
Social Sciences	12
Non-LSA Distributions Requirements	**42-43**

* Various non-LSA colleges also require foreign language proficiency, including those in Music and Theatre and Drama. Most also require extra writing courses.

Total Comparable Requirements 42-64

University of Minnesota

(semester system)

University-Wide Diversified Core Curriculum:	
Physical and Biological Sciences	8
Social Sciences/Humanities	
Social Sciences	6
Humanities (at least one literature)	6
Historical Perspectives	3
Mathematical Thinking	3
Designated Themes: at least 3 credits in each of the following:	
Cultural Diversity	3
International Perspectives	3
Environment	3
Citizenship and Public Ethics	3
Writing (1 or 2 courses)	3-6
Writing Intensive (4 courses, 2 upper division; cross count)	
Total University-Wide Requirements	**41-44**

College of Liberal Arts

BA and BFA require a total of 60 distribution credits including
4th semester foreign language proficiency **60**

Total Comparable Requirements 41-60

University of North Carolina
(semester system)

University-Wide Requirements	
General Education Basic Skills	
English Composition and Oral Communication	3-6
Foreign language (4th semester proficiency)	4-16
Mathematical Sciences	3-6
General Education Perspectives	
Aesthetic (one literature, one fine arts)	6
Natural Sciences (minimum of one lab course)	7
Philosophical Perspective	3
Social Sciences (in two different departments)	6
Western Historical/Non-Western/Comparative (two different areas)	6
First-Year Seminar (can cross-count)	
Cultural Diversity Requirement (can cross-count)	
Total University-Wide Requirements	**38-56**
BA degree requires an additional four upper-level GE Perspectives	**12**
BJournalism requires:	
2/3 of course work be done in Arts & Sciences	
one course in state and local government	3

(No College of Engineering)

Total Comparable Requirements 38-68

Pennsylvania State University

(semester system)

University-wide Baccalaureate Degree Requirements (in semester hours)

Skills	
Writing/Speaking	9
Quantification	6
Knowledge Domains	30
Natural Sciences (minimum 9)	
Arts (minimum 6)	
Humanities (minimum 6)	
Social and Behavioral Sciences (minimum 6)	
Other	
Health and Physical Activity	3
First-Year Seminar	1
Intercultural and International Competence	3
Writing Across the Curriculum	3
Total University-Wide Requirements	**55**

Requirements for a BA in addition to the universal requirements:

Foreign Language (4^{th} semester proficiency	3-12
Arts	3
Humanities	3
Social and Behavioral Sciences	3
Other Cultures	3
Total Requirements for a BA	**70-79**

Requirements for an arts and sciences BS in addition to the universal requirements:

Second semester proficiency in a foreign language	3-6
Arts	3
Humanities	3
Social and Behavioral Sciences	3
Other Cultures	3
Total Requirements for a BS	**70-73**

Total Comparable Requirements **55-79**

University of Texas-Austin
(semester system)

University-Wide Basic Education Requirement:	
English composition	3
Substantial writing component	6
Foreign language (2nd semester proficiency)	5-10
Literature	3
American and Texas government	6
American history	6
Social science	3
Mathematics	3
Natural science (in 2 disciplines)	9
Fine arts/ humanities	3
Minority or Non-Dominant Groups in US	3
Total University-Wide Requirements	**50-55**
Arts and Sciences BA/BS further requires:	
Foreign language (4th semester proficiency)	10
Social Sciences	3
Science	3
Humanities	3
Total Additional BA/BS Requirements	**19**

Total Comparable Requirements 50-74

University of Virginia
(semester system)

College of Arts and Sciences Requirements	
A. Competency Requirements	
First Writing	6
Second Writing	3
Foreign Language (4th semester proficiency)	4-14
B. Area Requirements	
Social Sciences	6
Humanities	6
Historical Studies	3
Non-western Perspectives	3
Natural Sciences and Mathematics	12
Total BA/BS Requirements	**43-53**
College of Engineering General Education Requirements	**45**
College of Business General Education Requirements	**23**
College of Education General Education Requirements	**18-24**
College of Architecture General Education Requirements	**18-24**

Total Comparable Requirements 18-53

University of Washington
(quarter system)

College of Arts and Sciences BA/BS General Education Requirements		
English Composition	15	
Quantitative and Symbolic Reasoning	4-5	
Foreign Language (3rd quarter proficiency)	5-15	
Areas of Knowledge	40	
Visual, Literary and Performing Arts		
Individuals and Societies		
The Natural World		
Total Requirements for BA and BS	**64-75**	
General Education Requirements for Other Colleges		
English Composition	7-10	
Quantitative and Symbolic Reasoning	5-15	
Foreign Language (2nd quarter proficiency)	0-15	
Areas of Knowledge		
Visual, Literary and Performing Arts	10-20	
Individuals and Societies	10-20	
The Natural World	10-20*	
Total Requirements for Other Colleges		**42-100**
Total Comparable Requirements		**42-100**

* "Science-heavy" majors such as Engineering, Forest Resources, Allied Medical Professions, Oceanography, and Public Health and Medicine require far more than 20 quarter hours in the "Natural World" category. Excepting those colleges, most non-Arts and Sciences require 10-20 quarter hours of "Natural World" courses.

University of Wisconsin
(semester system)

Core Curriculum:*		
General Education		
Communication		
Part A	3-6	
Part B	2-3	
Quantitative Reasoning		
Part A	3-5	
Part B	4	
Ethnic Studies	4	
Breadth		
Natural Science	6	
Humanities/Literature/Arts	6	
Social Studies	3	
Ethnic Studies	3	
Total Core Curriculum Requirements		**34-40**

* Each college adds additional general education requirements.

College of Letters and Science		
Core Curriculum		
Communication	3-6	
Mathematics	6-9	
Foreign Language (4^{th} semester proficiency for B.A. 3^{rd} semester proficiency for BS	4-16	
Breadth Requirements	40	
Ethnic Studies	3	
College of Letters and Science Total		**56-74**
College of Agriculture Core Curriculum + Breadth Requirements		**37**
College of Business Core Curriculum + Breadth Requirements		**39-53**
College of Engineering Core Curriculum + Breadth Requirements		**33-43**
College of Human Ecology Core Curriculum + Breadth Requirements		**40**
College of Nursing Core Curriculum + Breadth Requirements		**56**

Total Comparable Requirements **34-74**

Appendix D:
Foreign Language Requirements at Benchmark and Top-Twenty Public Universities*

Institution	Proficiency level	University?	ASC?	Other?
U Arizona	4th semester		BA	BS: 2nd semester
UC-Berkeley	2nd semester		BA/BS	
UC-Davis	3rd quarter		BA/BAS	
UC-Irvine	4th quarter	Yes		
UCLA	3rd quarter	Yes		
UC-Santa Barbara	3rd–4th quarter		BA/BS	
U Florida	2nd semester		BA/BS	
U Georgia	2nd – 4th semester		most BA/BS	Journalism, Social Work, Int'l Business
U Illinois	3rd semester	Yes		
U Michigan	4th semester		BA/BS	
U Minnesota	4th semester		BA	
U North Carolina	4th semester	Yes		
Penn State	4th semester		BA	
U Texas	2nd semester	Yes	BA 4th semester	
U Virginia	4th semester		BA/BS	
U Washington	2nd quarter	Yes	BA/BS 3rd quarter	
U Wisconsin	4th semester		BA	(3rd semester BS)

* As in our other comparisons. Georgia Institute of Technology. Texas A & M, and The College of William and Mary are not included. University of California-San Diego is also excluded because its unconventional college structure renders this kind of comparison virtually impossible.

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December 18, 1994

Richard Sisson
Senior Vice President for
Academic Affairs and Provost
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall

Dear Dick:

Thank you for writing me on December 6, 1994, asking about the data we have on the number of credit hours taken for graduation by a sample of undergraduates from the larger colleges offering undergraduate degrees at Ohio State. We have been tinkering with these data for some time now, and fine-tuning our thoughts about them, but your note prompted us to take a breather and pass the data along. We are delighted to forward this report.

I was interested to hear your comments about moving to a 180 credit-hour degree. The data in this report bear on that topic and you may find them particularly useful as you consider this matter further.

Moving to 180 credit hours is a sensible proposal, one that stands on its own merits. Clearly, your proposal has already been well received by the press and others. The data in this report suggest that such a change will not ensure a four-year degree. But it surely is one of many steps that can move us in that direction.

Permit me to digress on this topic a bit, in another vein. I have wondered whether the length of time it takes a student at Ohio State to graduate, and the number of credit hours accumulated in the doing, is to some extent a matter of historical accident.

Specifically, for reasons unclear to me, Ohio State long ago settled on a convention of the 5-hour course. Indeed, that is reified in the model curriculum developed by the Special Committee in 1988:

> "The following description of the proposed model assumes a five-credit-hour course norm for convenience in comparison."

When translating semester hours to quarter hours the math takes the usual 3-hour semester course and converts it to 4.5 quarter hours. Therefore, some quarter-system schools might adopt a 4-credit-hour convention while others might adopt a 5-credit-hour convention. However, we reviewed catalogs from UCLA, Stanford, Minnesota, and Cleveland State, and found that their convention is 4 hours. Actually, I know of <u>no other</u> quarter-system school that uses a convention of the 5-hour course (see Table 1, attached, for illustrative purposes).

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. A quick review of our own bulletins shows that we actually recommend three five-hour courses as a per-quarter load in many of our colleges. Consequently, the typical Ohio State student will have completed nine courses in a year while the typical student at another quarter-system institution will have completed twelve courses. The cumulative effect is that: 1) it will take an Ohio State student much longer (33% longer, in fact) to complete the same number of courses as a student at another quarter-system school, and 2) the Ohio State student will accumulate a larger number of overall credit hours in the doing.

Put bluntly, at the end of a conventional four years, the Ohio State student will have completed only 36 courses in achieving 180 credit hours, while the comparison student at another quarter-system school will have completed 48 courses and 192 credit hours. The Ohio State student has more still to do prior to graduation; the comparison student is either graduating, or is near to it. Our 5-hour convention may place our students behind the 8-ball.

Our College of Social Work provides an intriguing exception. They offer a large number of 3 and 4 credit-hour courses in the major. Further, they require only 180 credit hours to graduate. These two elements of their curriculum fit well. The 196-hour requirement in the Arts and Sciences seems to me to be driven substantially by the age-old convention of the five credit-hour course. Notably, the GEC has taken our entire curriculum even further in the direction of the 5 credit-hour convention. Consequently, we can probably anticipate an increase of the number of credit-hours achieved prior to graduation.

For several reasons, one wouldn't want to convert our courses to four credit hours from five by fiat. First, there would be negative subsidy implications. Second, it would increase student demand for courses by, perhaps, 33%, as students moved from a three course per term convention to a four course per term convention; we cannot accommodate that. Third, our student body is diverse and many students might struggle more with a four-course load; many struggle today with a three-course load.

I am not sure where that leaves the conversation. However, I wanted to be sure to take this opportunity to raise a point that has intrigued me for some time.

Should you have any questions about the report please do not hesitate to ask. Happy reading, and warm wishes for a happy holiday season.

Cordially,

Robert M. Arkin
Undergraduate Dean,
Colleges of the Arts and Sciences

Attachment: Table comparing credit hours assigned to selected courses at a sample of quarter-system Universities

Table 1: A Comparison of Credit Hours Assigned to Selected Courses at a Sample of Quarter-System Universities.

	CSU	UCLA	OSU	Minn.	Stan.
Intro. Chem.	4	4	5	4	3
Intro Psych.	4	4	5	5	4
Frosh English	4	4	5	4	3
Intro. Soc.	4	4	5	4	5
Intro. Biology	3	4	5	5	5
Shakespeare	4	4	5	4	3

Legend:

CSU Cleveland State University
UCLA University of California at Los Angeles
OSU The Ohio State University
Minn. University of Minnesota
Stan. Stanford University

Note: Only the UCLA General Catalog states plainly that the credit-hour convention is 4-hours. Other schools state no convention; consequently, we sampled some representative courses to illustrate the point.

Undergraduate Curricular Requirements

and Graduation

at

The Ohio State University

Colleges of the Arts and Sciences
Robert M. Arkin, Undergraduate Dean
121 Denney Hall, 164 West 17th Avenue
December 15, 1994

Preface

This report contains information compiled by the staff of the Colleges of the Arts and Sciences concerning undergraduate curricular requirements and graduation at The Ohio State University. Specifically, the data collected here address the following questions about undergraduate degree programs:

•What was the rationale for the current 196-hour requirement?

•When were the current credit-hour requirements established?

•What fraction of a typical student's degree total is composed of General Education Curriculum course work, major course work, elective courses, etc.?

•What credit-hour totals are typical of recent graduates in various colleges?

•At peer institutions, what are the total hours required for baccalaureate degrees and what fraction of those hours are general education requirements?

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Appendix 1. Fourteenth Day Enrollment by College

Appendix 2. Presentation of Data on Recent Graduates in Lists and Graphs

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Executive Summary

With its 50 pages and two appendices, this report may at first seem daunting. However, we provide here a summary by extracting especially germane information and putting it into a Question and Answer format. In it, we highlight some of the most central conclusions. The overall report provides the detailed background for considering these and other, more specific, questions about undergraduate curricular requirements and graduation at The Ohio State University.

■ How long does it take an undergraduate student to graduate from The Ohio State University?

About 15 quarters of study. A snapshot study of Spring Quarter, 1993, graduates showed that the mean number of quarters enrolled at Ohio State was 14.53 (Median = 15, Mode = 15). The mean accumulated credit hours for these students was 214.45 (Median = 209, Mode = 196).

An informal review of the raw data presented in Appendix 2, however, suggests a bimodal distribution. A large portion of students take 12 or 13 quarters to graduate (4 years, or 4 years plus a summer term?) and another group appear to take 15 or 16 quarters to graduate (5 years, or 5 years plus a summer term?). Nearly 1,000 of the 1,700 students surveyed fell into this 12- or 13- and 15- or 16- quarter bimodal trend. One wonders whether there are two or three identifiable groups of students: those who intend to graduate in four years and then do, those who intend to graduate in five years (they take lighter loads, work, etc.) and then do, and those who arrive intending to graduate in four years but who then confront frustration and disappointment and must adjust from a four-year to a five-year plan. Naturally, many other factors--such as ability level--surely play a role.

Notably, not quite a third (N = 460) of our sample graduated in 12 or 13 quarters (4 years, or 4 years and 1 summer term). The overall distribution of the graduates is quite skewed: very few students graduate in fewer than 12 academic quarters; a steadily diminishing number of students take from 17 to 33 academic quarters to graduation.

■ Are these statistics the same for native as for transfer students?

No. The snapshot study showed that native students are enrolled at Ohio State a little longer on average (Mean = 15.46 quarters, Median = 15, Mode = 15) than transfer students (Mean = 11.89 quarters, Median = 12, Mode = 13). However, native students accumulate slightly fewer overall college credit hours prior to graduation (Mean = 212.48, Median = 208, Mode = 196) than do transfer students (Mean = 220.06, Median = 212.5, Mode = 196).

Notably, the bimodal (12 and 13 quarters, 15 and 16 quarters) trend described above was very clear for native students (who are mostly those who began as NFQF at Ohio State) and less clear for transfer students. That would be expected if the "four-year decision" vs. "five-year decision" interpretation offered above were correct. Transfer students seemed to take from 9 to 14 quarters (at Ohio State) to graduate in roughly equal numbers.

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■ Overall, these numbers seem high. Are these statistics biased by including part-time students in the sample of Spring, 1993 graduates?

No. Part-time students were included in our survey, but their inclusion does not bias these data, at least not substantially.

Fourteenth day enrollment data (see Appendix 1) for the three academic quarters (Autumn, Winter, Spring) show that about 85% of students eligible for our survey are full-time students, only 15% being part-time. And some of the students who are part-time in such a 14th-day snapshot are actually full-time students during the balance of their career. The vast majority of part-time students are enrolled in CED. We estimate that fewer than one-in-ten of the students we surveyed were part-time throughout their matriculation; this rate should not bias our conclusions much.

■ Do these statistics vary much by the students' college of enrollment?

Yes. The snapshot study shows that the College of Business is low at 198.24 credit hours earned and 13.89 quarters in residence. In contrast, students in the College of Education (225.95 hours, 15.08 quarters) and the College of Engineering (227.3 hours, 15.69 quarters) were highest. This difference surely reflects the lower number of credit hours required for graduation in the College of Business at the time (180) coupled with the very high number of credit hours required for the major (Education) and for the major and college requirements (Engineering) in other colleges (including tagged and untagged degrees in Art and majors in the Mathematical and Physical Sciences).

The balance of the other colleges' graduates hovered around 210 credit hours and averaged 14 quarters in residence to graduation.

One could use graduates in the College of Business (at that time) as an index of how long it would take students to graduate, on average, if the University as a whole were to embrace 180 credit hours as the standard. The modal College of Business student graduated with 180 hours, however the median number of credit hours earned was 191 and the mean was 198.24 credit hours. Interestingly, the modal number of quarters in residence was still 15 for these students, but the median was 14 quarters and the mean dropped to 13.89 quarters.

Notably, the bimodal trend described above (12 or 13 quarters, 15 or 16 quarters) appears again. Even with a 180-credit-hour requirement, then, it appears that one-third of the students graduate in four years, one-third graduate in five years, and one-third do something else.

In requiring 180 credit hours to complete the degree, then, the likelihood of the University dropping well below a 14-quarter average for time in residence to the degree is remote (unless other steps were also taken). On the other hand, it can be said that the modal student would graduate with 180 credit hours (not 196) and in four years (defined as 12 or 13 quarters of study).

If other steps were taken concurrently (improved course availability, careful advising, reduced off-campus employment, less remedial course work through higher admissions standards, etc.), we would begin to approach half or more of our students graduating "on time" in four years.

■ Does it take substantially longer to graduate today than it did in the past?

No, not based on data concerning Arts and Sciences students. The table below shows that, in 1972, when the requirement was also 196 credit hours, it took the average Arts and Sciences student 13.75 quarters over a span of 4.75 years to graduate. That figure is about half a quarter less time, on average, than this survey average (14.24 quarters). Nevertheless, it is still in excess of the 12 quarters assumed necessary for graduation. The average number of credit hours to graduation increased 8.5 hours over that two-decade span.

In 1983, when the requirement was 180 credit hours, students completed on average 194.5 credit hours to graduation. This is about ten hours fewer than was true of graduates in 1972, and almost twenty hours fewer than is true today (difference = 19.45).

It is notable that, for native students, the modal number of quarters to graduation now is 13 (but the median is 15 and the mean is 15.25). A reduction to a 180-credit-hour requirement would likely cut the mode to 12 quarters--while the median and mean would likely be about 14 quarters. In sum, a plurality of students could and would graduate in four years; however, there would still be a substantial number of students taking quite a bit longer, keeping the average up above 12 quarters.

Incidentally, it is that analysis in 1972 which led to a reduction in the credit hours required for graduation to 180 from 196, effective Summer, 1974.

Table 1: Credit hours required and achieved, and quarters to graduation for Arts and Sciences graduates in 1972, 1983, and 1993

	1972	1983	1993
Required:	196	180	196
Quarters to graduation:	13.75	Unavailable	14.24
Credit hours to graduation:	205.5	194.5	213.95

■ Is there any basis or rationale for the selection of 196 credit hours, or 180 credit hours, for the degree?

Not that we can find. There does not appear to be any defensible, philosophical basis articulated for requiring any particular number of credit hours for the baccalaureate degree. The rationales provided stem from a particular faculty committee's interpretation of current trends in undergraduate education and its definition of an educated person.

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■ Did the advent of the GEC (General Education Curriculum) establish a University-wide minimum of 196 credit hours for graduation?

No. There is no established University-wide minimum or maximum credit hours required for undergraduate degrees. For instance, the Bachelor of Science in Social Work today requires 180 credit hours.

The most noteworthy change in credit hour requirements resulting from GEC implementation was an increase to 196 credit hours from 180 credit hours required for graduation in the College of Business. The other increases were, for the most part, small (1 - 4 credit hours; there are a few exceptions). In contrast, credit hours required for graduation for students in the College of Engineering actually declined.

■ What fraction of a typical student's degree total is comprised of GEC course work, major course work, elective course work?

The GEC portion of a student's course work varies from a minimum of about one-third of the total course work (e.g., College of the Arts, major in Dance) to a maximum of about one-half or slightly more than one-half (Arts and Sciences, Business) of a student's total course work (see Section 3.3). Most colleges approximate the fraction characterizing Arts and Sciences and Business.

Course work in the major varies widely, from a low of 20% (Natural Resources, Arts and Sciences) to a high of 65% or more (Engineering, College of the Arts, major in music).

Most degree programs provide for elective course work. These vary from none at all to 46 hours. However, despite the claim of elective credit, much elective course work is specified by program requirements.

■ Is the distribution of percentages, including our GEC, out of step with peer and other relevant institutions?

In the Arts and Sciences we allocate a higher percentage to the GEC than many (see Section 5.4), but match several Big Ten schools closely (Illinois, Indiana, Penn State), and several Ohio schools as well (Oberlin, Bowling Green, Cincinnati, Ohio University). We are clearly on the higher end of the spectrum. For some schools and colleges at Ohio State (e.g., Business, Human Ecology, Nursing), those which match the Arts and Sciences model best, the same is surely true.

With regard to hours allocated to the major, Arts and Sciences at Ohio State is commensurate with the peer and other universities we polled.

■ Overall, with regard to credit hours required for graduation and, consequently, quarters of study to graduation, what is the likely impact of the GEC--now and in the future?

The GEC involves a significant percentage of the distribution of requirements at Ohio State, more than is the case at many peer and competitor institutions. The GEC therefore surely contributes to low 4-year and 5-year graduation rates at Ohio State. In comparison, however, to the LAR-BER and college requirements formerly in place, meaningful increases in requirements associated with the GEC have occurred for only a relatively small percentage of Ohio State students. Only in the College of Business, where credit hours to graduation increased to 196 from 180, should we anticipate an even longer duration of study to graduation. In sum, although the GEC is likely to exacerbate slightly the problem with low 4-year and 5-year graduation rates, low rates already characterized Ohio State. While the impact of the GEC may be measurable, it is likely to be minimal.

One might be critical of the GEC by some other standard. It is complex, and it has visited dislocation both on students and faculty. The GEC posits many behavioral goals and educational objectives; it is highly prescriptive; it specifies a large number of courses required to fulfill sundry requirements and our 5 credit-hour convention therefore allocates a large number of credit hours to the general education portion of the curriculum; it is not funded or staffed at levels which enable us to deliver it fully; its support from the faculty is variable at best. However, as implemented today, the GEC itself is not the major contributor to low 4-year and 5-year graduation rates.

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RMA/MKD/SSW. 12/15/94.

1. Rationale for the Current 196-Hour Requirement

1.1 Introduction

What follows is an historical account of the rationales used for the various credit-hour totals required for graduation with liberal arts degrees. The requirements and rationales for the liberal arts degrees are summarized here because undergraduate curricular decisions within the Arts and Sciences tend to provide a standard against which other schools and colleges measure themselves. Information includes the time period during which the credit-hour requirement was in effect, the total credit hours required, the University calendar during that span of time, and the rationale for the degree requirements.

1.2 Summary

Year	Credit Hours Required	University Calendar	Notes
1907-08 through 1909-10	180 Term Hours	Terms	Cadet service and physical education not included in minimum hours required. The academic year was made up of the following terms: summer (5 1/2 weeks), first and second (13 weeks each), and third (11 weeks).
1910-11 through 1921-22	120 Semester Hours	Semesters	Cadet service and physical education not included in minimum hours required.
1922-23 through 1945-46	190 Quarter Hours	Quarters	University changed to quarter system with an accompanying increase in minimum hours required and the inclusion of required credit hours earned in military science, physical education, and hygiene in the minimum.
1946-47 through 1973-74	196 Quarter Hours	Quarters	Curriculum revision added six hours to the minimum required and degree total included required credit hours earned in military science, physical education, and hygiene.
1959			University Basic Education Requirements instituted.
1961			Military science requirement restructured and required of men and women: 12-15 hours of military science, Air Force aerospace studies, or naval science; or completion of an academic option.
1964			The women's physical education requirement was reduced to three from six credit hours.
1970-71			National Defense Option instituted: 12 hours of military science, Air Force aerospace studies, or naval science; or completion of 12 hours of electives.
1973-74			Health education (one hour) abolished as a requirement.
1974-75 through 1982-83	180 Quarter Hours	Quarters	Review of Colleges of the Arts and Sciences degree programs and time required to complete degree requirements resulted in reduction of credit hours to 180 for the BA and BS, but not the BA in Journalism

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			(remained at 196); 180 credit hours included those earned in fulfillment of the requirements in the National Defense Option (12) and physical education (three).
1974			College of Administrative Science and the School of Social Work decreased the hours required for the degrees to 180 from 196; 180 credit hours included those earned in fulfillment of National Defense Option (12) and physical education (three).
1975			National Defense Option abolished and replaced with Free Electives (12 hours).
1979			Physical education requirement abolished and Free Electives increased to 15.
1983-84 ff.	196 Quarter Hours	Quarters	Liberal Arts Requirements instituted and credit hours increased to 196 to improve weaker programs and to bring degree total in line with comparable universities; 196 included 15 hours of Free Electives.
1990	196 Quarter Hours	Quarters	To accommodate the General Education Curriculum, the College of Business increased the minimum hours required for the degree to 196 from 180; other colleges experienced minimal increases; some College of Engineering programs decreased in credit hours. Free Electives were eliminated in all programs except for ASC (15) and NRE (04).

1.3 Narrative

180 Term Hours: 1907-08 through 1909-10

180 term-credit hours required, along with cadet service (six terms for men) and physical education for men (three terms) and hygiene and physical education for women (six terms). It was suggested that during the first year students complete 15 or 16 credit hours per term plus cadet service, hygiene, and physical education; the second year 15 credit hours per term plus cadet service, hygiene, and physical education, and in the third and fourth years 15 hours per term.

> About one-third of every student's curriculum is prescribed. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in mathematics and one science, or in two sciences to be chosen by himself, and in history, economics, English, or philosophy. The remaining two-thirds of each student's work is elective; but in order to insure substantial results in the studies thus freely chosen, the student is required to continue two of his first-year studies (any two) through the second year, one of his second-year studies (any one) through the third year, and one of his third-year studies (any one) through the fourth year. (page 29)
>
> *College of Arts, Philosophy and Science Bulletin, 1907-08*

120 Semester Hours: 1910-11 through 1921-22

120 semester-credit hours required, along with cadet service (six terms for men) and physical education for men (three terms) and hygiene and physical education for women (six terms). During the first and second years, students were expected to complete 15 or 16 credit hours per semester plus cadet service, physical education, and hygiene; and 15 or 16 hours in the third and fourth years.

> About one-third of every student's curriculum is prescribed. Each student is required to lay sufficiently broad foundations, during the first two years, in English, in two other languages to be chosen by himself, in

mathematics and one science, or in two sciences to be chosen by himself, and in history, economics, English, or philosophy. The remaining two-thirds of each student's work is elective; but in order to insure substantial results in the studies thus freely chosen, the student is required to continue two of his first-year studies (any two) through the second year, one of his second-year studies (any one) through the third year, and one of his third-year studies (any one) through the fourth year. (pages 18-19)

College of Arts, Philosophy and Science Bulletin, 1910-11

190 Quarter Hours: 1922-23 through 1945-46

190 quarter-credit hours required which included the credit hours earned for the required military science (two years required and a maximum of 18 count toward the degree), physical education (three credit hours for men and six credit hours for women), and hygiene course work (one credit hour for men and women). During the first and second years, students were expected to complete 15 or 16 credit hours per quarter plus cadet service, physical education, and hygiene; and 15 or 16 hours per quarter in the third and fourth years.

During the first two years of his course, designated as the Junior Division, the student is expected to lay a broad foundation for later specialization. To secure this end, while allowing a wide latitude for personal choice, the student is required to select a course from each of a number of groups of studies. The high school course is a fundamental part of the whole program of the education of each student. Accordingly the courses which have been offered for admission to college are taken into consideration in framing the requirements governing the choice of subjects in college. (page 183)

During the third and fourth years (designated as the Senior Division) the student will center a considerable portion of his attention in some one general field of knowledge designated as his major study. In addition to the major study several general courses are required in the interests of a liberal education. (page 186)

College of Arts, Philosophy, and Science Bulletin, 1923-24.

196 Quarter Hours: 1946-47 through 1973-74

The Bachelor of Arts degree required a total of 196 quarter-credit hours which included the credit hours earned for the required military science (12 for men), physical education (three for men and six for women), and hygiene course work (one credit hour for all students). Most Bachelor of Science degrees required a total of 206 quarter-credit hours which included required course work in military science, physical education, and hygiene. The chemistry and medical technology programs required 200 and 215 credit hours, respectively, exclusive of military science, physical education, and hygiene course work. Suggested course loads per quarter were 15 credit hours plus military science, physical education, and hygiene during the first and second years, and 15 or 16 hours in the third and fourth years.

[The curriculum] is the result of several years study by a faculty committee and is designed to meet present day needs and trends in liberal education. The purpose of the new curriculum is to supply two needs. First, that a student shall be supplied with as much information as possible in the central fields of learning in which he does not expect to specialize. Second, to provide a carefully planned series of requirements which will coordinate with the work in high school, lay a sound foundation for later limited specialization and provide a good distribution of subject matter for the many students who are unable to complete a full four-year program of study. (pages 28-29)

Colleges of the Arts and Sciences Bulletin, 1949-50.

In 1959, the Basic Education Requirements (BER) were instituted for all undergraduate degree-granting units. Every curriculum included a total of 45 credit hours of course work with a 15-hour distribution in each of the humanities, the natural sciences, and the social sciences. Business programs required 15 credit hours each in the humanities and natural sciences, and 23 credit hours in the social sciences. Engineering programs required 15 credit hours each in the humanities and social sciences with the natural sciences requirement being met with courses required for each of the majors. Beyond the BER course work, the degree-granting units had college and major requirements, along with elective hours to reach the minimum required for the particular degree program.

In 1961, the military science requirement was restructured and became required of every student. Students could fulfill this component of the curriculum by taking 12-15 credit hours of military science, Air Force aerospace studies, or naval science (15 plus five hours of psychology); or by choosing academic options ranging from completion of 10 credit hours of mathematics beyond that required for the particular degree program to the completion of six credit hours of advanced course work that built on the Basic Education Requirements.

In 1963-64, the physical education requirement for women was reduced to three credit hours from six.

In 1970-71, the military science requirement was renamed to the National Defense Option, changed to 12 credit hours, and students were given the choice of taking military science course work or electives.

In 1973-74, the one-credit hour health education requirement was abolished.

180 Quarter Hours: 1974-75 through 1982-83

180 quarter hours required for the untagged Bachelor of Arts and Bachelor of Science degree programs which included the National Defense Option and physical education and later the Free Electives (15 credit hours). Bachelor of Science students were cautioned that those programs may require more than 180 total hours. The quarterly schedule recommendation was three five-hour courses, or two five-hour courses and two three-hour courses, plus physical education and military science.

> Last year [1972] the Curriculum Committee of Arts and Sciences made a careful study of certain OSU degree programs and of the time required to complete degree requirements. We found that the average ASC student graduates in 13.75 quarters over a time span of 4.75 years—well in excess of the 12 quarters or four years which we have often assumed. The Committee also noted that the total number of hours (196) required for the B.A. or B.S. at OSU exceeds the requirement at any other Big Ten University. These results were reported to the faculty in Trends in Undergraduate Education (April 10, 1972).
>
> Additional studies were undertaken. One showed that students who do not change major or college or university required 13.55 quarters to graduate, thus countering the argument that the lengthened degree results primarily from changes in direction. College curriculum committees were consulted in October. During January a preliminary proposal was distributed for comment by colleges and departments offering majors in the untagged B.A. and B.S. programs. Based on these considerations, the Curriculum Committee of Arts and Sciences has developed what it believes to be an educationally sound proposal to reduce the minimum number of hours required for graduation with the untagged B.A. or B.S. degree.
>
> The present proposal is predicated on the assumption that the five-credit-hour course is a natural unit for most courses under the quarter system and that 15 credit hours per quarter is a normal course load. A five-credit-hour course should be sufficiently rigorous to require approximately one-third of the student's study time.
>
> . . . Resolved that:
>
> 1. The number of hours required to complete an untagged B.A. or B.S. degree with a given major will depend on the program and the goals of the individual student. The minimum number of hours required for graduation with the untagged B.A. or B.S. shall be 180.
>
> 2. Some students, including those wishing specific professional training, those preparing for graduate study in certain disciplines, or students with multi-disciplinary goals, may wish to plan a B.A. or B.S. program of more than 180 quarter hours.
>
> 3. Students who change majors, transfer students, part-time students, students who require remedial courses or who make frequent use of the course withdrawal policy may require more than 180 quarter hours and/or more than 12 quarters in order to complete a B.A. or B.S. degree.
>
> 4. If approved, this change will be effective for students graduating during Summer Quarter, 1974, or during the fourth quarter following approval by the Council on Academic Affairs, whichever is later. Students are

to be reminded that eligibility for graduation is based on the completion of all requirements and not on the mere accumulation of hours.

5. It is recommended that the University's National Defense Option requirement be abolished. The proposed reduction in the number of hours required for graduation (items 1-4) is not conditioned upon acceptance of this recommendation.

Arts and Sciences Faculty Senate Minutes, 1973-74.

In 1974, the College of Administrative Science (Business) and the School of Social Work (which was part of that college) decreased the hours required for the Bachelor of Science in Business Administration and the Bachelor of Science in Social Welfare from 196 to 180. Those 180 credit hours included the 12 hours assigned to the National Defense Option and three hours to physical education which later became the 15 hours of Free Electives.

On January 10, 1975, the Board of Trustees approved changing the 12 credit-hour National Defense Option to Free Electives.

On March 2, 1979, the board approved the abolition of the three credit-hour requirement in physical education (for both men and women) and the accompanying increase in Free Electives to 15.

196 Quarter Hours: 1983-84 ff.

196 quarter-credit hours required, including 15 credit hours of Free Electives. The quarterly schedule recommendation was three five-hour courses, or two five-hour courses and two three-hour courses.

An increase in the minimum number of credit hours--together with the new Liberal Arts Requirements--will improve weaker programs, while most of the stronger programs will not be greatly affected by the simple increase. Other colleges here and other comparable public universities appear to share our assumption that the larger figure is more appropriate.

One hundred and ninety-six credit hours or more are required for most other degree programs at Ohio State, as it once was for the B.A. and the B.S. in ASC . . . . 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 credit hours would become the common norm at most colleges and universities. None of these assumptions has proved to be valid.

Among the state-assisted institutions in Ohio, Arts and Sciences' 180 hours is low. Comparisons to other Big Ten institutions appear to be more favorable, but since most of those institutions possess selective admission requirements well beyond ours and operate on the semester system, our 180 quarter hours seems to be rather low.

And in fact, a sizable proportion of our students already acquire many more than 180 credit hours. In a sample of ASC students from the calendar year 1980, 25% of those earning the B.A. and 50% of those earning the B.S. earned 196 or more hours applicable to the degree. The average number of such hours earned for all degrees was 191 for the B.A. and 199 for the B.S; in contrast, 50% of the B.A. and 30% of the B.S. candidates earned 185 hours or less, suggesting an almost bimodal distribution that is mirrored by other measurements of rigor. Therefore, this change would be a recognition of the strength of many existing programs and a means to raise others to that level.

A degree program of 196 hours will not necessarily be more rigorous than one of 180 hours; but, however imperfect, the academic credit hour is still our primary measure of structured learning experience. Although there are exceptions, there is no question that stronger programs tend to have more hours and that those with more hours tend to be stronger. The increase to 196 hours will have its greatest impact on students who would pursue weaker programs; coupled with the change in requirements already approved and those now proposed, the increase in hours will raise the minimum standards for our degree.

Arts and Sciences Curriculum Committee Minutes, 1981-82.

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196 Quarter Hours: 1990

The Colleges of the Arts and Sciences General Education Curriculum (GEC) model was the first approved. Following the historical pattern of undergraduate curriculum revision at Ohio State, the ASC model (along with the Special Committee for Undergraduate Curriculum Review's report on general education) was used as the starting point for the other undergraduate degree-units' reviews of their programs. The GEC resulted in a move from the University-wide concept of course work in three basic areas of academic study--15 credit hours in each of the humanities, natural sciences, and social sciences--to a more specialized, degree-granting unit based and sometimes major program based set of general education requirements. This departure is reflected in Section 3 of this report (Degree Composition and Rationale).

The institution of the GEC brought about an increase in the minimum number of credit hours required for the degree in the College of Business (180 to 196). Other degree-granting units experienced minimal credit-hour increases as noted on the following pages, while a number of programs in the College of Engineering decreased in credit hours. Free Electives were eliminated in all programs except for ASC (15) and NRE (04). In order to graduate in four years (12 quarters), a student must successfully complete an average load of 16-17 credit hours of appropriate courses each quarter (to total a minimum 196 credit hours).

> In his October 1985 address to the University Senate, President Jennings called for a University-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." At the suggestion of the Faculty Council of the University Senate, he subsequently appointed a Special Committee for Undergraduate Curriculum Review broadly representative of the University faculty . . . In its interim report, . . . the Special Committee for Undergraduate Curriculum Review has set an ambitious goal for the University's undergraduate degree programs. The committee has, in effect, provided a definition of general education that ably argues its case on both the broader theoretical level and from within the more particular responsibilities of The Ohio State University. In relating what it defines as the attributes of the educated person to the curricular goals of the various faculties of the University, the Committee has therefore taken into consideration the mission that is envisioned in the University's motto, disciplina in civitatem ("training for citizenship"), and its particular charge as a land-grant, flagship institution.
>
> In December of 1986 Provost Myles Brand further implemented the process by the creation of a Special Committee for Undergraduate Curriculum Review in Arts and Sciences, which he charged "primarily, with directing the revision of the undergraduate curriculum in Arts and Sciences, a revision which will be a point of departure for undergraduate curricula in all the colleges on campus."
>
> . . .
>
> Curriculum is an evolving and continuous factor in an academic institution. We recognize that the Colleges of the Arts and Sciences have undertaken several major reviews of curriculum in recent decades, the last put in place for classes entering Autumn Quarter 1983 and later, at which time substantial reduction of the Liberal Arts Core (hereinafter LAC) options was effected and the current Liberal Arts Requirements (hereinafter LAR) instituted. In addition, there are many modifications of offerings each year. The committee has kept this situation in mind as it considered options for the proposed model. Another factor has been important. In the turbulence of the 60's and 70's many colleges and universities dropped or reduced a number of requirements, many of which are now being reintroduced. The Ohio State University largely maintained its degree requirements and standards. The wisdom of this decision has become evident, and the present review of the undergraduate curriculum in the Arts and Sciences can therefore be founded on a solid tradition.
>
> *A Model Curriculum Developed by the Special Committee for Undergraduate Curriculum Review in Arts and Sciences and Approved by the Faculty of the Colleges of the Arts and Sciences, The Ohio State University, June 8, 1988*

Item 2

THE OHIO STATE UNIVERSITY

Undergraduate Studies
Colleges of the Arts and Sciences

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February 28, 1995

Richard Sisson
Senior Vice President for
Academic Affairs and Provost
Office of Academic Affairs
203 Bricker Hall
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Dear Dick:

Your call for consideration of a conversion to a 180-hour degree has stimulated a great deal of conversation on campus. There is widespread recognition of the importance of graduation rates and the fact that we are often judged on this measure by our various constituencies. However, there is a diversity of opinions about the likely effects of a conversion to 180 hours from our present 196-hour requirement.

My own assessment is that there is much to be gained by declaring the requirement to be 180 hours; however, I believe what is gained is, in many ways, more perception than reality. Stating that the degree is 180 hours and that we expect students to complete it in four years, sets an expectation many students will respect. That would be a positive step. [Some colleagues tell me that some universities even require students to petition for continued enrollment after the fourth year.] Further, the change would shift the perception of responsibility for four-year graduation rates to the student. We would be saying in effect that we suppose it can be done and therefore, when it isn't achieved, the University did not stand in the way.

However, the reality, many believe, is that students will merely take three fewer courses overall in pursuit of a degree (this, of course, wouldn't be true of students who have many requirements and little flexibility in meeting criteria for graduation; it is mostly true of liberal arts students). This would enable a small percentage of students to graduate more expeditiously, but will not enhance four-year graduation rates by much--most students are achieving a five-year graduation, and three fewer courses to hurdle would not ensure a four-year graduation.

With this by way of background, my purpose in writing is to note some likely consequences of shifting to a 180-hour requirement from a 196-hour requirement. One of these is potentially positive, and might enhance our four-year graduation rate. On the other hand, one result might lead to chilling criticism of Ohio State.

You may recall that in our December 1994 report, we implied that there exists no compelling rationale for the 196-hour requirement for our degree. Now, with the present data in hand and, in light of our careful analysis of the implications of our 5-credit-hour convention at Ohio State, I believe there is such a rationale. Our recent analysis of graduation rates, in the December report, coupled with your call for the change to a 180-hour requirement, stimulated the little

study (a transcript analysis) described below. 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.

The Transcript Analysis

We took a random sample (N = 20 each) of the four-year graduate group and the five-year graduate group from our earlier study (where the overall N was more than 1,700). These are students who began as New First Quarter Freshmen (NFQF) either in Autumn 1988 or in Autumn 1989 and who then graduated in the spring of 1993. As you may recall, together these two groups constitute about 2/3 of the total number of Spring 1993 graduates.

Our purpose was to examine several facets of the course work completed by students in two colleges in the arts and sciences confederation: 1) social and behavioral sciences, and 2) humanities.

We selected these two colleges for several reasons. First, the curricula in these colleges reflect the prototypical "liberal arts" degree. Students pursuing majors offered by these two colleges are the most likely to move from 196 to 180 hours. Stated differently, students in Engineering, Allied Medical Professions, Nursing, and other undergraduate colleges will not be affected substantially by a 180-hour mandate; students pursuing majors in those colleges now have requirements that exceed the 196-hour mark and there is, as there was before the GEC, little or no flexibility in their curricula. Students who had a 180-hour requirement before the GEC (Business and Social Work) might be likely to return to it (Business) or sustain it (Social Work). Second, experience suggested that Humanities is a college where five-hour courses are common, while that is less true in the Social and Behavioral Sciences; therefore, we expected to find a diversity of experiences.

Our central purpose was to examine the number of academic courses the typical four-year and the typical five-year graduate completes in pursuit of the 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. The range of experiences around those means is fairly narrow.

Certain features of the findings for the four-year and five-year graduates are quite predictable. The five-year graduates withdraw from more courses overall, they repeat more courses (subsequent to poor or failing grades), and they take more remedial course work, while the four-year graduates have a larger number of transfer credits (from summer work completed elsewhere). All these findings seem unsurprising.

On the other hand, we were surprised to see the overwhelming predominance of five-hour courses in every student's curriculum, regardless of the college of enrollment. The data, in fact, show that students take little else.

What would happen if we moved from 196 to 180 hours for our degree, while sustaining the five- credit-hour norm? Students with the most flexible curricula, such as those in our sample, will probably take three fewer courses, on average. This will increase the disparity between our quarter-system competition and us in terms of the raw number of academic experiences students have in pursuit of their degrees. Someone may wish to make the case that our five-hour courses are more rigorous, more demanding, and more comprehensive 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.

Consequently, many students receiving the Ohio State degree will have an educational experience that, in one sense, appears slim in comparison to our peers. Part of my purpose in writing to you today is to alert you to that potential concern. If we make the move to 180, we will want to be prepared for this criticism and be armed with counterarguments.

I mentioned above that there was one potential silver lining in this otherwise gray-skies analysis. It is that our predominant experience for undergraduate students today, a five-year degree, is distinguished from a four-year degree by fewer than three completed courses (43.05 v. 40.90), at least in this sample. If the degree were trimmed by three courses (196 to 180), could our five-year graduates be cajoled to graduate in four years?

Unfortunately, many people with whom I have spoken say "No." They argue that there are too many factors that push students toward a five-year degree, including part-time work, family obligations, poor academic preparation, changes in academic plans, and many other exogenous factors. So, while some combination of things might make a four-year graduation rate more the norm, the conversion to a 180-hour requirement alone, people say, is a small enough change that it alone cannot be expected to lead to such a big effect.

We found this little transcript analysis thought provoking and we hope you do too. Naturally, I would be delighted to discuss these matters with you further should the need arise.

Cordially,

Robert M. Arkin
Undergraduate Dean,
Colleges of the Arts and Sciences

Attachment: Table and figures related to January-February 1995 Arts and Sciences Transcript Analysis

c: James Garland, Executive Dean for Arts and Sciences

Transcript Analysis: Number of Courses Taken by a Sample of Spring Quarter 1993 Graduates from the Colleges of Humanities and Social and Behavioral Sciences within the Colleges of the Arts and Sciences

	4-year graduates[1]	5-year graduates[2]
Mean number of courses completed:[3]	**40.90**	**43.05**
Number of EM courses:	8 courses spread among 7 students	8 courses spread among 6 students
Number of course withdrawals:	13 courses spread among 8 students	31 courses spread among 16 students
Number of repeated courses:[4]	6 courses spread among 4 students	19 courses spread among 12 students
Number of remedial courses:[5]	8 courses spread among 6 students	24 courses spread among 15 students
Number of K credit courses:[5]	5 courses spread among 4 students	2 courses spread among 1 student
Number of Audited courses[5]	0 courses spread among 0 students	1 course spread among 1 student

[1]NFQF in Autumn 1989

[2]NFQF in Autumn 1988

[3]activity/applied courses eliminated

[4]All repeated courses are counted twice in the datum "mean number of courses." For instance, a course in the major with a grade lower than C- would be repeated; and both attempts to complete the course are counted in the "mean number of courses."

[5]included in the total number of courses

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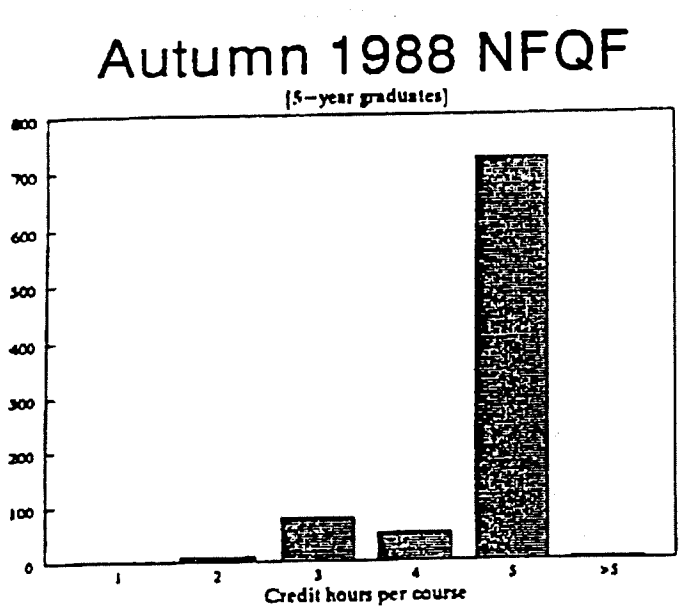
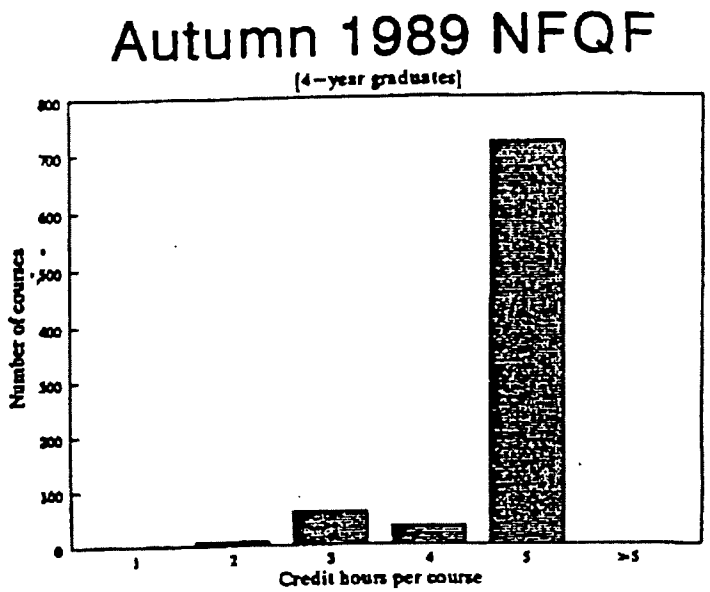
Total number of courses, arrayed by CRHR of course





For both 4-year and 5-year graduates, 5 credit-hour courses predominate. This sample of students showed that students took little else.

Mean number of courses by credit hour

Autumn 1988 Sample

ɹmber of credit ›urs per course	Average number of courses taken
1	0.00
2	0.40
3	3.90
4	2.50
5	36.10
>5	0.15

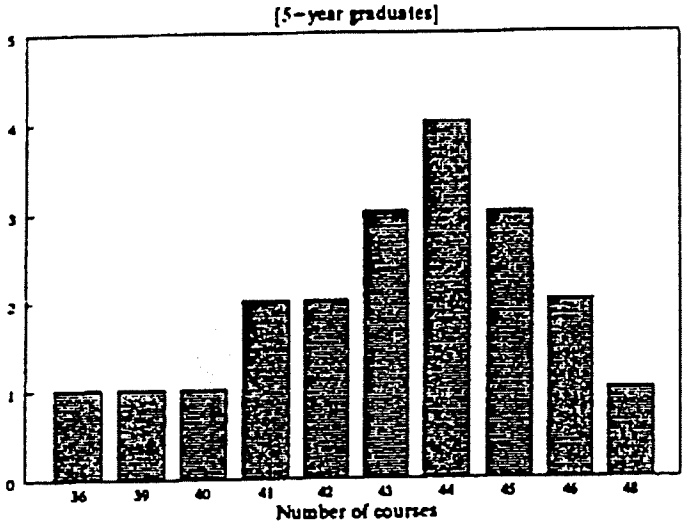
Autumn 1989 Sample

Number of credit hours per course	Average number of courses taken
1	0.00
2	0.30
3	3.00
4	1.65
5	35.95
>5	0.00

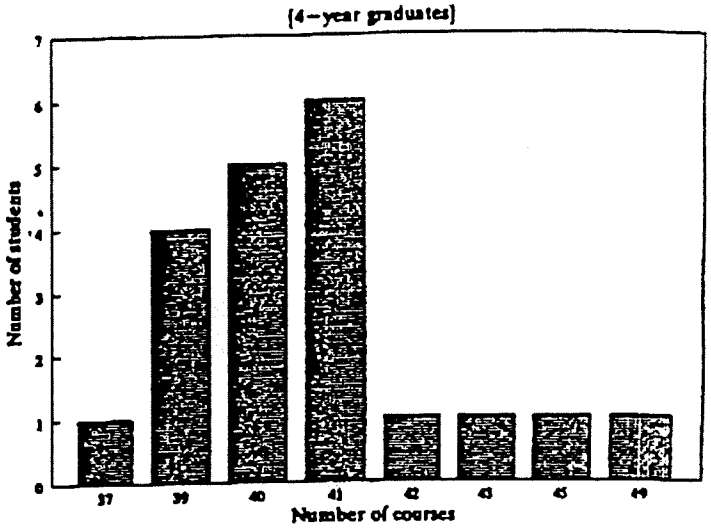
ɪdergraduate Dean

Total number of courses taken by 4 year and 5 year graduates

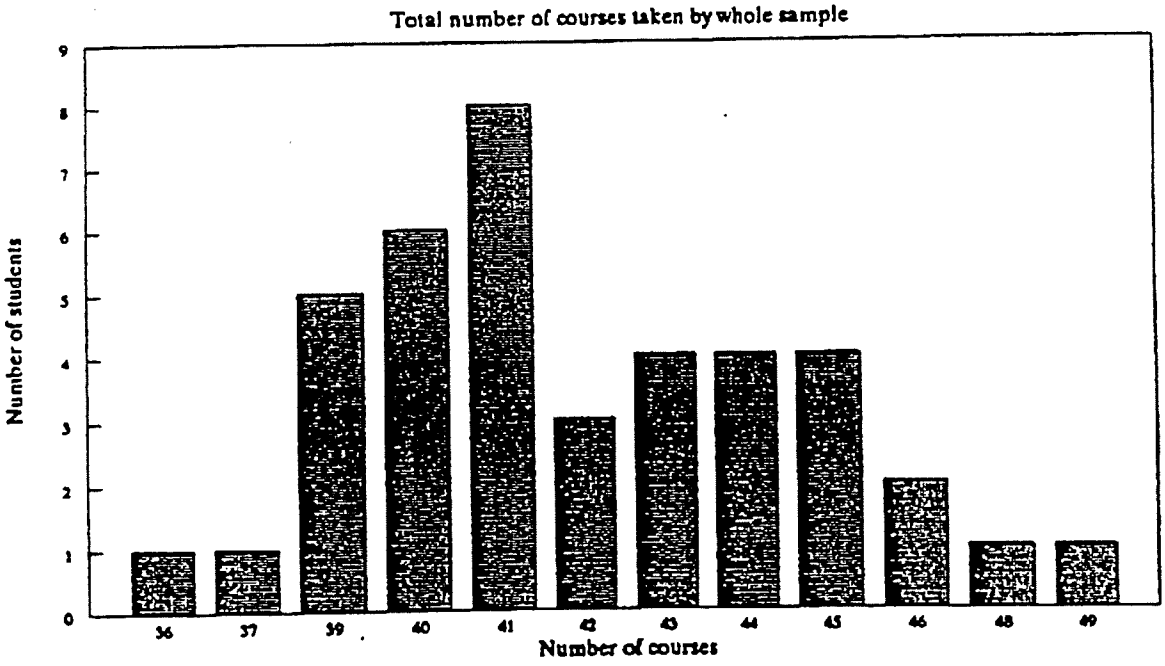
Autumn 1988 NFQF



Autumn 1989 NFQF



Four-year graduates average 40.90 courses, with a range of 37 to 49 courses completed. Five-year graduates average 43.05 courses, with a range of 36 to 48 courses completed.



Combining the 4-year and 5-year graduates reveals a mode of 41 courses completed toward graduation and a clear positive skew.

adergraduate Dean

The Ohio State University Graduate Cohort Analysis of Time to Baccalaureate Completion for New First Quarter Freshmen

Survey of 1995-96 Baccalaureate Graduates to Identify Factors that Impact Degree Progress

October, 1997

Jim Mager, Assistant Vice President for Enrollment Management
Office of Enrollment Management

Sherri Noxel, Graduate Administrative Associate
Office of the University Registrar

Hery Soemanto, Graduate Administrative Associate
Office of Enrollment Management

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(Due to the large volume of pages, the comprehensive Appendix section is available upon request. Please call Sherri Noxel at 292-6837 or e-mail noxel.1@osu.edu)

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G. Open ended responses

Acknowledgments

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Survey of 1995-96 Baccalaureate Graduates to Identify Factors that Impact Degree Progress

A randomly selected sample of 400 baccalaureate recipients from the graduating class of 1995-96 who started at Ohio State as freshmen was surveyed to determine the major factors that contributed to their degree progress. Students were asked to respond to a series of specific items about their experiences and also about their perceptions of whether these experiences slowed their progress. Students were then given the opportunity to report additional important reasons. This exploratory analysis focused on identifying the factors that distinguished four-year baccalaureate graduates from those who took more than four years. Eighty-seven percent of the graduates were at least somewhat satisfied with their progress.

What are the clear reasons that Ohio State students take more than four years to graduate?

- Students frequently drop and repeat classes, which reduced the amount of credit hours earned each quarter.
- Students enrolled in fewer classes to protect their grade point average.
- Students were employed while they were enrolled and consequently took fewer hours to give themselves more time to earn wages.

What are additional, potential reasons why Ohio State students graduate in more than four years?

- Students frequently reported that stress related issues slowed their progress.
- Students most frequently reported GEC requirements as the most important reason that their progress toward graduation was slowed.
- Students change majors and consequently select their final major field of study as sophomores and juniors.
- Students strongly perceived unavailable classes in their major as contributing to slower progress. However, there was no difference between four-year and more than four-year graduates in whether they were unable to take a GEC or a major class during the quarter that they requested the class.
- Students perceived that ineffective academic counseling slowed their progress.

What factors improve Ohio State student progress toward graduation?

- Personal motivation to get out in four years was the most important factor reported by four-year graduates.
- Tutoring and study skill sessions were found to be significantly associated with time to degree.
- Four-year graduates perceived that taking summer classes, earning credit from other institutions, advanced placement credit and completing a college preparatory curriculum in high school are important factors that helped their progress to graduation.
- Four-year graduates reported that effective academic counseling helped speed up their progress.

What were the unexpected findings in this study?

- Four-year graduates were not significantly more likely to receive financial aid or to perceive that receiving aid helped their progress.
- Participation in extracurricular activities was not a major factor in slowing degree progress.
- Using a curriculum plan was frequently reported as an important factor reported by four year graduates but they were not significantly more likely to use a curriculum plan or to perceive that it impacted their progress.

Summary of the Project

In September 1996 the Research Retention Committee identified time to degree research as a high priority and proposed a student survey research project to assess the degree progress experiences and perceptions of recent Ohio State baccalaureate recipients (See Appendix A). Simultaneously, the University Registrar's Office researched time to degree indicators for five recent cohorts of baccalaureate recipients and released the "Analysis of Enrollment Patterns that Impact Degree Progress for Baccalaureate Graduates Summer 1992 through Spring 1997". While this analysis identified how long graduates take to earn a baccalaureate degree from Ohio State remaining questions about the reasons behind these figures were to be explored by the survey research project of the Retention Research Committee.

During May and June 1997 the Strategy Team, an independent research firm, refined the telephone questionnaire (See Appendix B) and conducted the interviews. The independent firm was hired to reduce bias in the design and implementation of the survey. A stratified random sample of graduates was selected from the population of students who started Ohio State in Autumn Quarter 1990, 1991 or 1992 and graduated during the 1995-96 academic year. Graduates were stratified to match the population distribution according to their degree college and whether they earned their baccalaureate in 4 years or more than 4 years. From the population of 5,883 graduates it was determined that a sample size of 400 would yield a confidence interval of ± 5%.

The response rate of the survey was 45%. The profile of the 400 alumni who completed the phone questionnaire was similar to the profile of nonrespondents in the sample (See Appendix C). Among the 400 respondents were 53% female students and 14% were students of color and the mean cumulative Ohio State grade point average was 3.06 for both groups.

Respondents were coded into two groups: four year graduates (n=134) and more than four year graduates (n=266) for analysis. As expected the four year graduates of the sample had higher mean ACT score (24.5) and a higher mean OSU grade point average (3.24) than those who graduated in more than four years (mean ACT score = 23.6, mean cumulative OSU GPA = 2.98).

These findings are descriptive of the sample and are helpful in advising students who wish to graduate in four years but can not be used to predict time to degree or to determine probabilities that students will graduate in four years. Both quantitative data and the qualitative data were analyzed to explore student experiences and the student perceptions of whether those experiences impacted their progress toward graduation. Chi square tests of independence were conducted to determine whether a statistically significant difference existed between the four-year and more than four-year graduates for selected variables. Classification trees for the experience variables and the perception variables were constructed to rank the variables according to the importance of the variable in sorting the students into the two time to degree categories. In addition, student answers to open ended questions about progress were coded and grouped by time to degree category. From these multiple methods three clear factors that were supported by both self-reported experiences and perceptions emerged. Additional factors were also perceived by students as slowing their progress, however, the experience of the four year and more than four year graduates related to these issues appeared to be similar or were not available for study. When studying the entire undergraduate student population there were multiple reasons why students take longer than four years to graduate, with no single, dominant factor emerging.

Summary of the Findings

What are the clear reasons that Ohio State students take more than four years to graduate?

Students drop and repeat classes. Students who took more than four years to graduate dropped and repeated courses primarily because they were failing or were not getting the grade that they expected. Consequently they were not earning enough credit hours each quarter to graduate in four years.

Students took fewer hours to give themselves more time for employment. In fact four-year graduates and more than four-year graduates worked about the same amount of hours. The difference was that graduates who took longer than four years enrolled in fewer classes to give themselves more time to earn wages, worked off campus and were paying the higher costs of both of education and living expenses than four-year graduates.

Students enrolled in fewer classes to protect their grade point average. Graduates who took more than four years to graduate were more likely to enroll in fewer classes to earn better grades and to perceive that academic difficulties and remedial coursework slowed their degree progress than were four-year graduates.

What are additional, potential reasons that Ohio State students graduate in more than four years?

Students selected their major field of study as juniors and seniors. Although there was no difference between four-year and more than four-year graduates in how often they reported officially changing their major significantly more of the four-year graduates selected their final major field of study earlier. Students who took more than four years to graduate also changed their major but often did not select their final major until their sophomore or junior year.

Students frequently reported that personal reasons slowed their progress. Students who took more than four years to graduate were significantly more likely to perceive that stress related factors slowed their progress.

Students most frequently reported GEC requirements as the most important reason that their progress toward graduation was slowed. While no specific questions about the impact of the GEC requirements on time to graduation were asked students consistently reported that "extensive GEC requirements" slowed their degree progress. Given the frequent enrollment decisions that students made, such as dropping classes, repeating classes and taking fewer classes, the GEC, that typically requires 16.3 completed hours per quarter for a four year graduation, can potentially delay graduation.

Students perceived that unavailable classes in their major and for GEC requirements contributed to slower progress. Fifty-one percent of all of the graduates in the sample reported unavailable GEC classes they quarter that they requested the class and 33% of the graduates reported unavailable major classes during the quarter that they requested the class. Although students perceived that these unavailable courses slowed there progress there was no significant difference between the two groups in how often the courses were unavailable to them.

Students strongly perceived that ineffective academic counseling slowed their progress. Students frequently identified counseling as an important factor that slowed their progress. Students who took more than four years to graduate perceived that the quality and availability of academic counseling slowed their progress to graduation. However, a comparable proportion of students who graduated in four years reported that effective advising helped their degree progress.

What were the unexpected findings in this study?

Receiving financial aid was not significantly associated with time to graduation. There was no difference in whether four-year and more than four-year graduates received aid or whether receiving aid was perceived as speeding up progress. Also, financial aid was not frequently reported in helping to speed up student progress.

Participation in extracurricular activities was not a major factor in slowing degree progress. In some cases students reported that having a busy calendar kept them on track and improved their time management. A few students reported "over-extending" themselves and were delayed in graduating because of their extensive participation.

Using a curriculum plan was not significant in helping to speed up graduation. No significant difference was evident between four-year and more than four year graduates in whether they used a curriculum plan and whether it helped their degree progress. Less than 10 % of the students reported this factor as helping their progress.

What factors improve Ohio State student progress toward graduation?

Personal motivation to get out in four years was most frequently reported as the most important factor in helping degree progress by four-year graduates.

Tutoring and study skill sessions were found to be significantly associated with time to degree. More four-year graduates perceived that participation in these sessions speeded up their progress to graduation.

Four-year graduates perceived that taking summer classes, earning credit from other institutions, completing a college preparatory curriculum in high school and advanced placement credit helped speed up their progress to graduation. However, no significant differences were evident between four-year and more than four-year graduates for any of these experiences.

Are students satisfied with their progress?

Yes, 87% of the graduates were at least somewhat satisfied with their progress. Four-year graduates were more satisfied with the time it took to graduate from Ohio State and were more satisfied with the education they received at Ohio State than were more than four-year graduates.

Classification Tree Analysis

A classification tree was constructed to identify the variables and variable combinations that explain why students take more than four years to graduate. This analysis classifies students according to whether they graduated in four years or more than four years and ranks the variables according to the importance of the variable in sorting the students into the two time to degree categories. These results are descriptive of the sample and are helpful in advising students who wish to graduate in four years. These results are not tested for statistically significance and can not be used to predict time to degree or to determine probabilities that students will graduate in four years.

Two types of factors, experience and perception, were included in the questionnaire. To illustrate the difference between these two types of factors we will use the questions related to extracurricular activities as an example.

> **Experience question:** Did you participate in extracurricular activities while you were enrolled at Ohio State?
>
> **Perception question:** Did your participation in extracurricular activities slow down your progress to graduation.

Student perceptions about the reasons that slowed their progress were not always confirmed when studying the experiences of four-year and more than four-year graduates. Reasons for this finding may be that the self reported experiences are incorrect because students have not remembered specific events or perhaps, as in attrition research, students give reasons for their progress that may be a rationalized response.

Student Perceptions

Of the twenty-two perception variables included in the analysis the five most important perception variables in determining time to degree were:

1. Dropping classes
2. Earning wages while enrolled
3. Taking fewer classes to earn better grades
4. Unavailable classes in the major field of study
5. Changing major field of study

Student Experiences

Of the twenty-two experience variables included in the analysis four were found to be the four most important variables in determining time to the degree:

1. Repeating classes
2. Dropping classes
3. Taking fewer credits to leave more time for employment
4. Taking classes elsewhere for college credit

The remaining eighteen variables were less important in distinguishing those students who graduated in four years and those who graduated in more than four years.

Student Comment Analysis

These summary tables display the comments mentioned by students in the open-ended questions. The results are displayed according to time to degree category. Note that in some cases a single student may have offered two or three comments, which may result in total comment values that exceed 100%.

Dropping Classes

More than four year graduates were significantly more likely to drop a course in the middle of the quarter $\chi 2$ (1, n = 399) = 24.7, $p<0.05$. Among the 228 students (56.9% of the sample) who dropped a course in the middle of the quarter (56 were 4-year graduates and 172 were more than four-year graduates) the following comments were reported as the reasons why they dropped the course.

Table 1. Reasons for Dropping a Class in the Middle of the Quarter.

Reason for dropping the class in the middle of the quarter	N 4 Yr. Comments	N >4 Yr. Comments	Total N Comments	% of 4 Yr. Grads who Dropped	% > 4 Yr. Grads who Dropped	% Sample who Dropped
Doing poorly or worse than expected, academic difficulty, avoiding poor grade	13	57	70	23.2	33.1	30.7
Failing the course	1	15	16	1.8	8.7	7
Academic Difficulty Subtotal	14	72	86	25	41.9	37.7
Too many classes, courseload too heavy	10	34	44	17.8	19.8	19.3
Didn't need the course, not related to major	13	15	28	23.2	8.7	12.3
Dissatisfied with course content, not what was expected, disinterested	3	21	24	5.4	12.2	10.5
Dissatisfied or conflicts with instructor	7	14	21	12.5	8.1	9.2
Changed Major	3	8	11	5.4	4.6	4.8
Death in family, illness or personal situation	3	7	10	5.4	4.1	4.4
Timing of class was too early in the morning, evening cut into study time	3	3	6	5.4	1.7	2.6
Didn't want to take the course	2	4	6	3.6	2.3	2.6
Too many extracurricular activities	0	3	3	0	1.7	1.1
Other (couldn't remember, time consuming, many different reasons, changing major)	0	3	3	0	1.7	1.1
Conflict with work	1	2	3	1.8	1.2	1.1
Incorrect placement	2	1	3	3.6	.6	1.1
Total Comments	61	187	249	108.9	108.7	109.2
No Drops Reported	78	94	172	na	na	na

Repeating Classes

More than four year graduates were significantly more likely to repeat a course in the middle of the quarter $\chi 2$ (1, n = 400) = 22.4, $p<0.05$. Among the 140 students (34.9% of the sample) who repeated a course (24 were 4-year graduates and 116 were more than four-year graduates) the following comments were reported as the reasons why they repeated the course.

Table 2. Reasons for Repeating Classes

Reason for repeating courses	N 4 Yr. Comments	N >4 Yr. Comments	Total N Comments	% 4 Yr. Grads who repeated	% > 4 Yr. Grads who repeated	% Sample who repeated
Low Grade	12	45	57	50	38.8	40.7
Failing or Failed Grade	8	34	42	33.3	29.3	30
Dropped First Attempt	2	13	15	8.3	11.2	10.7
Required Repeat	2	7	9	8.3	6.0	6.4
Freshman Forgiveness	0	8	8	0	6.9	5.7
Unsatisfied with Instructor	0	2	2	0	1.7	1.4
Know the material better	0	3	3	0	2.6	2.1
Other	1	3	4	4.2	2.6	2.8
Total Comments	25	115	140	104	99.1	100
No Repeated Course Reported	114	146	260	na	na	na

Employment While Enrolled

More than four year graduates were significantly more likely to work off campus $\chi 2$ (2, n = 339) = 6.1, $p<0.05$ and to take fewer credit hours to give themselves more time to work $\chi 2$ (1, n = 339) = 16.4, $p<0.05$. Among the 338 students (84.5% of the sample) who earned wages while they were enrolled (113 were 4-year graduates and 225 were more than four-year graduates) the following comments were reported as the reasons why they were employed.

Table 3. Reasons for Employment while Enrolled

Reason for employment while enrolled	N 4 Yr. Comments	N >4 Yr Comments	Total N Comments	% 4 Yr. Working Grads	% > 4 Yr. Working Grads	% Sample Working Grads
Extra money (sorority, car)	46	92	138	40.7	40.9	40.8
Pay for education (books, tuition, fees)	29	44	73	25.7	19.6	21.6
Pay for living expenses (rent, bills, family and kids)	23	37	60	20.4	16.4	17.8
Both education and living expenses	9	42	51	8	18.7	15.1
Experience and/or resume	9	23	32	8	10.2	9.5
Other (self fulfillment, get out of parents' house, military)	4	6	10	3.5	2.7	3
Internship	1	4	5	.9	1.8	1.6
Employment was work study or Stadium Dorm Coop	2	1	3	1.8	.4	1
Total Comments	123	249	372	108.8	110.7	110.1
No Working Reported	26	36	62	na	na	na

Factors that Slowed Progress

Among the 400 students surveyed 134 of the students were four-year graduates and 266 of the students were more than four-year graduates. Additional insight into the reasons that impacted degree progress is gained from the summary of responses that students reported at the end of the questionnaire when asked for the most important factors that slowed their progress.

Table 4. Factors that Slowed Degree Progress

Reason for slow progress	N 4 Yr. Comments	N >4 Yr. Comments	Total N Comments	% Total 4 Yr. Grads	% Total > 4 Yr. Grads	% Total Sample
Too many GEC requirements	16	40	56	11.9	15	14 0
Unrelated GEC requirements	4	10	14	3	3.8	3.5
GEC Subtotal	20	50	70	14.9	18.8	17.5
Unavailable courses, scheduling or wait list problems	14	33	47	10.4	12.4	11.8
Poor or late counseling	8	24	32	6	9	8.0
Personal reasons or lack of motivation	3	28	31	2.2	10.5	7.8
Other (unique reasons)	3	20	23	2.2	7.7	5.8
Changed major	3	19	22	2.2	7.3	5.5
Intentional choice	2	10	12	1.4	3.8	3 0
Social involvement and distractions	0	10	10	0	3.8	2.5
Instructor	1	9	10	.7	3.4	2.5
Working	1	9	10	.7	3.4	2.5
Late selection of major	2	7	9	1.4	2.7	2.3
Total Comments	57	219	276	42.5	82.3	69.0
No item response (means either that nothing slowed down their progress or that the item has already been identified)	70	54	124	52.2	20.3	31

Factors that Speeded Up Degree Progress

Additional insight into the factors that impact degree progress is gained from the summary of responses that students reported when asked for the most important factors that helped speed up their progress.

Table 5. Factors that Speeded Up Degree Progress

Reason for speeding up degree progress	N 4 Yr. Comments	N >4 Yr. Comments	Total N Comments	% Total 4 Yr. Grads	% Total > 4 Yr. Grads	% Total Sample
Personal goal setting and motivation	27	45	72	20.1	16.9	18
Advanced Placement and/or H.S. Preparation	25	32	57	18.6	12	14.3
Summer courses	23	36	59	17.2	13.5	14.8
Curriculum Plan	21	28	49	15.7	10.5	12.3
Taking Heavy Loads	19	14	33	14.2	5.3	8.3
Advising quality and availability	10	26	36	7.5	9.8	9
Available or limited funding	8	10	18	6	3.8	4.5
Support/pressure from Family and Friends	7	17	24	5.2	6.4	6
Other*	7	12	19	5.2	4.5	4.8
Timing of selecting academic major, selecting major of interest	6	16	22	4.5	6.0	5.5
Availability of courses	5	11	16	3.7	4.1	4
Honors program participant	4	5	9	3	1.9	2.3
Extracurricular programs (professional fraternities, varsity athletics)	3	5	8	2.2	1.9	2
Good study skills	1	12	13	7	4 5	3 3
Faculty Support	1	2	3	.7	.8	1
Total Comments	167	271	438	125	102	109
No item response (means either that nothing speeded up their progress or that the item has already been identified)	10	46	56	7.5	17.3	14

* Includes unique reasons such as living close to campus, not skipping classes, targeting once-a-year graduate school admission calendars

Appendix C

Summary Information for Time to Degree Sample

Descriptor	4 Year Grads	> 4 Year Grads	Total Respondents	Nonrespondents
n	139	261	400	1200
Mean ACT Score	24.5	23.6	23.9	TBD
Mean OSU Cumulative GPA	3.24	2.98	3.06	3.06
Mean Elapsed Years to Degree	3.7	4.6	4.3	4.4
Enrollment Rate	84%	81%	82%	82%
Minimum Required Hour Ratio	105%	111%	109%	110%
Earned Hours per Quarter	16.7	14.9	15.5	15.4
Mean Earned Hours	206.2	217.6	213.8	214.4
Mean Failed Hours	.41	2.1	1.5	2.5
Mean Dropped Hours	5.3	9.9	8.4	9.2
% Female	62%	48%	53%	53%
% Students of Color	13%	15%	14%	14%

Summary of Responses related to Employment while Enrolled in Classes at OSU

Data excerpts from: Survey of 1995-96 Baccalaureate Graduates to Identify Factors that Impact Degree Progress (October, 1997)

A telephone survey of 1995-96 baccalaureate graduates that began at OSU as NFQFs (in Autumn Quarter 1990, 1991 or 1992) was conducted in May 1997. The sample for the telephone survey included 400 Ohio State graduates. 53% of the respondents were female and 47% were male. 5.7% of the graduates were African American, 6.7% were Asian American, 1.4% were Hispanic, .2% were Native American, 85.5% were White and .5% were of unknown race or ethnicity. The mean cumulative grade point average of the respondents was 3.06.

- 84.5% of the graduates in the sample were employed while enrolled in classes at OSU.

Of the 338 students who were employed while they were enrolled:

- 30.1% worked on campus, 41.6% worked off campus, and 28.3% worked both on and off campus.
- 30.4% worked the entire time they were a student, 36.3% worked most of the time, 19.8% worked half of the time, 10.0% worked less than half the time, and 3.5% worked every once in a while.
- 40.7% worked more than 20 hours a week, 52.2% worked between 10 - 20 hours, 5.3% worked between 5 - 10 hours, and 1.8% worked less than 5 hours per week.
- 11.8% of the graduates indicated that they took a smaller class load to give themselves more time to work.
- 14.0% of the graduates indicated that earning wages slowed down their progress toward graduation.

More than four year graduates were significantly more likely to work off campus $\chi 2$ (2, n = 339) = 6.1, $p<0.05$ and to take fewer credit hours to give themselves more time to work $\chi 2$ (1, n = 339) = 16.4, $p<0.05$. Among the 338 students (84.5% of the sample) who worked while they were enrolled (113 were 4-year graduates and 225 were more than four-year graduates) the following comments were reported as the reasons why they worked. Note that in some cases a single student offered two or three comments, which may result in total comment values that exceed 100%.

Reasons why students were employed while at Ohio State

Reason for employment while enrolled	N 4 Yr Comment	N >4 Yr. Comment	Total N Comment	% 4 Yr. Working Grads	% > 4 Yr. Working Grads	% Sample Working Grads
Extra money (sorority, car)	46	92	138	40.7	40.9	40.8
Pay for education (books, tuition, fees)	29	44	73	25.7	19.6	21.6
Pay for living expenses (rent, bills, family and kids)	23	37	60	20.4	16.4	17.8
Both education and living expenses	9	42	51	8	18.7	15.1
Experience and/or resume	9	23	32	8	10.2	9.5
Other (self fulfillment, get out of parents' house, military)	4	6	10	3.5	2.7	3
Internship	1	4	5	9	1.8	1.6
Employment was work study or Stadium Dorm Coop	2	1	3	1.8	.4	1
Total Comments	123	249	372	108.8	110.7	110.1
No Employment Reported	26	36	62	na	na	na

Summary of Responses related to Academic Advising at OSU

Data excerpts from Survey of 1995-96 Baccalaureate Graduates to Identify Factors that Impact Degree Progress (October, 1997)

A telephone survey of 1995-96 baccalaureate graduates that began at OSU as NFQFs (in Autumn Quarter 1990, 1991 or 1992) was conducted in May 1997 The sample for the telephone survey included 400 Ohio State graduates. 53% of the respondents were female and 47% were male 5 7% of the graduates were African American, 6 7% were Asian American, 1.4% were Hispanic, .2% were Native American, 85.5% were White and 5% were of unknown race or ethnicity. The mean cumulative grade point average of the respondents was 3.06.

- 12.1% of the graduates in the sample agreed that the availability of academic counseling slowed their degree progress.
- 21.9% of the graduates in the sample agreed that the quality of academic counseling slowed their degree progress.

Extenders, or those graduates who took more than four years, were significantly more likely to perceive that the availability of academic counseling slowed their progress $\chi 2$ (1, n = 396) = 4.725, $p<0.05$ and that the quality of academic counseling slowed their progress $\chi 2$ (1, n = 397) = 13.16, $p<0.05$. Among the 87 students (21.9% of the sample) who reported that the quality of academic counseling slowed their progress (16 were 4-year graduates and 71 were more than four-year graduates) the following comments were reported as aspects of the quality of academic counseling that slowed them down. Note that in some cases a single student may have offered two or three comments, which results in total comment values that exceed 100%.

Responses to "What about the quality of academic counseling slowed you down?"

Reason why advising slowed progress	N 4 Yr. Grad Comment	N >4 Yr. Grad Comment	Total N Grad Comment	% 4 Yr. Grads who reported	% > 4 Yr. Grads who reported	% Sample who reported
Not helpful	6	22	28	40	33.3	34.6
Wrong information	2	10	12	13.4	15.2	14.8
Unavailable advisors	1	9	10	6.7	13.6	12.3
Different advisors (no knowledge of case history)	1	8	9	6.7	12 1	11.1
Poor UVC advising	3	5	8	20	7.6	9.9
Impersonal	0	6	6	0	9	7.4
Multiple answers to question	1	5	6	6.7	7.6	7.4
Not helpful in selecting major	0	5	5	0	7 6	6.2
Incorrect placement	1	2	3	6.7	3	3.7
Other	0	3	3	0	4.5	3.7
No help in planning	0	2	2	0	3	2.5
Poor career advising	1	1	2	6.7	1.5	2.5
Poor faculty advising	1	0	1	6.7	0	1.2
Total Comments	17	78	95	113	118	117.3
Advising didn't slow progress	119	200	319	na	na	na

Appendix C

Distribution of Sample by Degree College and Time to Degree

	Expected Distribution			Sample Distribution		
Degree College	**4 Years**	**> 4 Years**	**Grand Total**	**4 Years**	**> 4 Years**	**Grand Total**
agr	6	15	21	7	12	19
ahr	1	4	5	1	3	4
amp	7	8	15	11	7	18
art	3	5	8	1	3	4
asc	62	86	148	60	88	148
bus	17	38	55	16	45	61
dhy	1	1	2	1	2	3
edp	5	15	20	4	16	20
edu	10	7	17	12	7	19
eng	5	38	43	5	38	43
hec	8	21	29	9	14	23
jur	4	11	15	1	11	12
nre	2	8	10	2	14	16
nur	4	4	8	3	6	9
swk	2	2	4	1		1
Grand Total	**137**	**263**	**400**	**134**	**266**	**400**

Time to Degree for Baccalaureate Recipients SU92-SP98 by Indicator (NFQF, excludes EDP PHR)

Table 2a: Elapsed Years

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs	Count of SSN	Mean Elapsed Yrs	StdDev Elapsed Yrs
UG	AGR	236	4.6	1.0	211	4.8	1.2	215	4.9	1.3	219	5.0	1.4	210	4.8	1.2	238	4.8	1.3
	AHR	84	5.0	1.3	73	5.0	1.0	47	4.9	0.9	50	5.0	0.9	55	5.0	1.5	56	5.0	1.4
	ART	110	5.2	1.1	133	5.4	1.5	123	5.2	1.4	106	5.3	1.5	123	5.1	1.6	136	5.3	1.8
	ASC	96	4.8	1.2	84	5.3	1.3	57	5.5	1.6	43	5.1	1.0	46	5.3	1.9	41	5.9	2.5
	BIO	154	4.6	1.1	137	4.6	1.1	158	4.7	1.3	171	4.7	1.3	158	4.5	1.4	167	4.6	1.3
	BUS	1034	4.5	1.0	668	4.7	1.2	575	4.8	1.1	575	4.9	1.5	595	4.9	1.5	535	4.8	1.5
	EDU	38	5.2	1.4	42	4.8	1.2	142	4.3	1.0	204	4.5	1.2	167	4.7	1.2	150	5.0	1.8
	ENG	564	5.0	0.9	467	5.0	1.1	498	5.2	1.1	508	5.3	1.4	495	5.3	1.4	459	5.4	1.6
	HEC	322	4.7	1.0	379	4.8	1.0	348	4.9	1.2	304	5.0	1.3	269	4.8	1.3	347	4.9	1.5
	HUM	339	4.7	1.1	326	5.0	1.4	313	5.0	1.3	273	5.0	1.4	326	5.0	1.8	342	4.9	1.7
	JUR	226	4.6	0.8	188	4.8	1.1	192	5.1	1.4	144	5.1	1.5	88	4.9	1.6	61	4.8	1.9
	MPS	96	4.8	1.4	84	4.6	1.1	93	4.9	1.1	92	4.9	1.3	74	4.9	1.7	70	5.1	2.0
	NRE	60	5.0	0.8	86	5.1	1.3	97	5.1	1.2	108	5.1	1.2	118	4.9	1.2	87	5.3	1.9
	SBS	977	4.7	1.1	891	4.8	1.2	954	4.9	1.3	861	4.9	1.5	860	4.8	1.4	833	5.0	1.8
	SWK	49	4.4	0.7	48	4.9	1.5	51	4.9	1.1	38	4.6	0.8	23	4.8	1.1	35	4.8	2.2
UG Total		4385	4.7	1.0	3817	4.9	1.2	3863	4.9	1.3	3696	5.0	1.4	3607	4.9	1.5	3557	5.0	1.7
UP	AMP	161	4.6	1.0	134	4.8	1.0	144	4.8	1.2	156	4.8	1.5	106	4.8	1.6	120	4.8	2.0
	DHY	15	4.3	0.6	24	4.6	1.1	23	4.5	1.0	20	5.1	1.1	23	5.4	1.4	22	5.1	1.1
	NUR	102	4.7	1.0	84	4.8	0.9	100	4.8	1.3	89	5.1	1.9	84	4.9	1.5	83	4.7	1.1
UP Total		278	4.6	1.0	242	4.7	1.0	267	4.8	1.2	265	4.9	1.6	213	4.9	1.5	225	4.8	1.7
Grand Total		4663	4.7	1.0	4059	4.9	1.2	4130	4.9	1.3	3961	5.0	1.4	3820	4.9	1.5	3782	5.0	1.7

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	N	Max Elapsed Yrs	Min Elapsed Yrs	N	Max Elapsed Yrs	Min Elapsed Yrs	N	Max Elapsed Yrs	Min Elapsed Yrs	N	Max Elapsed Yrs	Min Elapsed Yrs	N	Max Elapsed Yrs	Min Elapsed Yrs	N	Max Elapsed Yrs	Min Elapsed Yrs
UG	AGR	236	9.75	3	211	10.5	2.75	215	10.75	2.5	219	12.5	2.25	210	10.75	2.75	238	12.25	2.75
	AHR	84	9.75	3.75	73	9.75	3.75	47	7.75	3.75	50	7.5	3.75	55	12.75	3.75	56	12.75	3.5
	ART	110	9.25	3.75	133	10.75	3.75	123	10.5	3.25	106	10.75	3	123	11.75	2.75	136	13	2.75
	ASC	96	9.75	3	84	10.5	3.5	57	10.5	3.75	43	7.75	3.5	46	12.75	3.5	41	14	3
	BIO	154	9.5	2.75	137	9.5	2.75	158	11.25	3.25	171	12.25	2.75	158	12.25	2.5	167	10.75	2.75
	BUS	1034	9.75	2.25	668	10.5	2.25	575	11.25	2.75	575	12.75	2.5	595	13.75	1.75	535	14	2.25
	EDU	38	9.75	3.75	42	9.5	2.75	142	9	2.75	204	12.75	2.75	167	9.5	2.75	150	13.75	2.75
	ENG	564	9.5	2.75	467	10.75	3	498	11.25	3.25	508	12.75	3	495	13.5	3	459	14.75	0
	HEC	322	9.25	3.25	379	10.75	3.25	348	11.25	3.25	304	12.75	2.75	269	11.75	2.75	347	13.25	2.75
	HUM	339	9.5	2.75	326	11	3.25	313	10.75	2.75	273	11.25	2.75	326	14	2.75	342	13.75	2.25
	JUR	226	8.75	3	188	9	3.75	192	11.75	3.5	144	11.75	3.5	88	11.25	3.5	61	14.25	2.75
	MPS	96	9.75	3.25	84	9	3.5	93	9.75	3.75	92	9.5	3.5	74	10.75	3.25	70	13.5	3.5
	NRE	60	6.75	3.75	86	9.5	3.75	97	10	3.5	108	9.5	3.25	118	10	3.5	87	13.5	2.75
	SBS	977	10	2.75	891	10.75	2.5	954	11.5	1.75	861	12.75	2.25	860	13	2.75	833	14.75	2
	SWK	49	7.5	3.75	48	10.5	3.5	51	8.75	3.75	38	6.5	3.5	23	7.75	3.75	35	14.75	3.75
UG Total		4385	10	2.25	3817	11	2.25	3863	11.75	1.75	3696	12.75	2.25	3607	14	1.75	3557	14.75	0
UP	AMP	161	9.75	2.25	134	8.75	2.75	144	10.5	3.75	156	12.75	2.75	106	12.75	3.75	120	14.75	3.25
	DHY	15	5.75	3.75	24	8.5	3.75	23	6.75	3.75	20	7.75	3.75	23	9.75	3.75	22	8.75	3.75
	NUR	102	8.75	3.75	84	9.5	3.5	100	11.25	3.75	89	12.5	3.5	84	12.75	3.75	83	9.75	3.75
UP Total		278	9.75	2.25	242	9.5	2.75	267	11.25	3.75	265	12.75	2.75	213	12.75	3.75	225	14.75	3.25
Grand Total		4663	10	2.25	4059	11	2.25	4130	11.75	1.75	3961	12.75	2.25	3820	14	1.75	3782	14.75	0

Time to Degree for Baccalaureate Recipients SU92-SP98 by Indicator (NFQF, excludes EDP PHR)

Table 2b: Enrollment Rate

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	Count of SSN	Mean Enr Rate	StdDev Enr Rate	Count of SSN	Mean Enr Rate	StdDev Enr Rate	Count of SSN	Mean Enr Rate	StdDev Enr Rate	Count of SSN	Mean Enr Rate	StdDev Enr Rate	Count of SSN	Mean Enr Rate	StdDev Enr Rate	Count of SSN	Mean Enr Rate	StdDev Enr Rate
UG	AGR	236	78.0%	9.0%	211	77.9%	9.3%	215	77.0%	9.7%	219	77.6%	11.2%	210	77.9%	10.4%	238	73.8%	11.5%
	AHR	84	77.6%	8.0%	73	79.8%	6.2%	47	81.9%	7.8%	50	79.0%	7.9%	55	78.4%	10.8%	56	76.0%	9.6%
	ART	110	77.4%	9.7%	133	77.5%	9.3%	123	78.2%	10.5%	106	78.8%	10.3%	123	80.0%	9.3%	136	76.0%	11.8%
	ASC	96	79.6%	10.6%	84	77.8%	10.9%	57	75.5%	11.1%	43	78.6%	9.7%	46	79.6%	10.0%	41	73.4%	14.6%
	BIO	154	81.7%	10.0%	137	82.4%	9.1%	158	80.9%	9.3%	171	82.2%	8.9%	158	83.7%	9.9%	167	77.3%	9.1%
	BUS	1034	80.4%	8.7%	668	79.5%	10.1%	575	79.4%	10.6%	575	79.6%	11.4%	595	79.8%	11.4%	535	77.4%	10.6%
	EDU	38	77.3%	11.6%	42	81.6%	10.3%	142	82.7%	9.2%	204	80.8%	10.9%	167	81.2%	11.3%	150	75.9%	13.6%
	ENG	564	78.6%	7.7%	467	79.8%	7.5%	498	79.2%	8.7%	508	78.2%	9.9%	495	78.7%	9.6%	459	74.6%	9.5%
	HEC	322	81.0%	8.9%	379	80.6%	8.9%	348	81.0%	9.6%	304	80.5%	9.7%	269	81.1%	9.3%	347	77.5%	10.6%
	HUM	339	78.8%	10.3%	326	77.0%	11.4%	313	77.9%	10.8%	273	77.7%	11.0%	326	78.4%	14.3%	342	75.4%	12.8%
	JUR	226	81.6%	7.4%	188	80.7%	10.1%	192	80.0%	10.3%	144	79.8%	11.3%	88	80.9%	11.5%	61	77.6%	11.8%
	MPS	96	81.8%	9.4%	84	84.0%	8.2%	93	81.6%	8.1%	92	81.2%	9.9%	74	81.2%	10.5%	70	75.5%	10.1%
	NRE	60	74.7%	9.3%	86	78.4%	10.2%	97	78.5%	9.4%	108	77.9%	8.8%	118	79.2%	9.0%	67	74.6%	14.2%
	SBS	977	78.9%	9.9%	891	79.2%	10.2%	954	78.8%	11.1%	861	78.5%	12.2%	860	79.6%	11.4%	833	74.9%	13.0%
	SWK	49	81.4%	6.2%	48	79.4%	12.2%	51	79.8%	8.4%	38	79.0%	8.4%	23	81.7%	7.2%	35	75.8%	11.5%
UG Total		4385	79.5%	9.2%	3817	79.4%	9.8%	3863	79.3%	10.2%	3696	79.1%	10.9%	3607	79.7%	11.1%	3557	75.7%	11.7%
UP	AMP	161	82.0%	9.3%	134	82.5%	7.9%	144	81.9%	10.4%	156	83.3%	10.3%	106	81.8%	10.7%	120	75.6%	13.0%
	DHY	15	85.3%	6.2%	24	85.0%	7.1%	23	86.1%	4.8%	20	83.9%	6.9%	23	81.6%	8.1%	22	78.1%	9.9%
	NUR	102	79.6%	6.8%	84	82.7%	6.0%	100	82.4%	7.5%	89	80.7%	8.6%	84	84.1%	9.2%	83	80.5%	5.9%
UP Total		278	81.3%	8.4%	242	82.8%	7.2%	267	82.5%	9.1%	265	82.5%	9.6%	213	82.7%	9.9%	225	77.4%	10.9%
Grand Total		4663	79.6%	9.2%	4059	79.6%	9.7%	4130	79.5%	10.1%	3961	79.3%	10.9%	3820	79.9%	11.0%	3782	75.8%	11.6%

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	N	Max Enr Rate	Min Enr Rate	N	Max Enr Rate	Min Enr Rate	N	Max Enr Rate	Min Enr Rate	N	Max Enr Rate	Min Enr Rate	N	Max Enr Rate	Min Enr Rate	N	Max Enr Rate	Min Enr Rate
UG	AGR	236	94.1%	41.2%	211	100.0%	39.4%	215	94.7%	34.9%	219	100.0%	32.5%	210	95.0%	18.9%	238	107.7%	24.5%
	AHR	84	89.5%	48.4%	73	93.8%	56.0%	47	93.3%	53.6%	50	94.7%	46.7%	55	100.0%	31.4%	56	100.0%	35.3%
	ART	110	100.0%	36.4%	133	93.3%	48.6%	123	100.0%	35.9%	106	100.0%	40.0%	123	100.0%	45.5%	136	120.0%	28.6%
	ASC	96	100.0%	28.6%	84	95.7%	40.5%	57	93.3%	36.6%	43	95.0%	52.0%	46	93.3%	50.0%	41	100.0%	38.7%
	BIO	154	100.0%	39.4%	137	100.0%	31.6%	158	100.0%	44.4%	171	109.1%	46.5%	158	120.0%	43.6%	167	109.1%	37.0%
	BUS	1034	100.0%	36.4%	668	116.7%	36.7%	575	100.0%	31.0%	575	100.0%	18.4%	595	118.2%	31.4%	535	110.5%	28.0%
	EDU	38	94.7%	41.0%	42	100.0%	56.5%	142	100.0%	27.8%	204	100.0%	21.1%	167	100.0%	35.5%	150	100.0%	24.0%
	ENG	564	100.0%	44.7%	467	107.1%	38.5%	498	113.3%	36.6%	508	113.3%	29.4%	495	113.3%	33.3%	459	100.0%	34.0%
	HEC	322	100.0%	43.2%	379	100.0%	44.4%	348	100.0%	36.6%	304	100.0%	38.7%	269	100.0%	40.0%	347	100.0%	28.3%
	HUM	339	100.0%	30.3%	326	100.0%	27.9%	313	100.0%	26.5%	273	100.0%	34.1%	326	145.5%	12.2%	342	144.4%	27.0%
	JUR	226	100.0%	40.7%	188	100.0%	46.9%	192	100.0%	40.4%	144	100.0%	34.1%	88	94.1%	33.3%	61	94.1%	22.8%
	MPS	96	100.0%	47.8%	84	106.7%	60.6%	93	105.3%	55.0%	92	100.0%	35.5%	74	100.0%	48.6%	70	100.0%	35.0%
	NRE	60	93.8%	54.5%	86	100.0%	38.2%	97	100.0%	40.0%	108	94.7%	31.6%	118	100.0%	30.0%	87	136.4%	27.8%
	SBS	977	100.0%	30.3%	891	100.0%	28.2%	954	114.3%	29.2%	861	106.7%	24.2%	860	118.2%	22.9%	833	127.3%	20.6%
	SWK	49	93.3%	63.3%	48	100.0%	23.1%	51	100.0%	51.4%	38	93.3%	46.2%	23	95.7%	58.1%	35	93.3%	30.5%
UG Total		4385	100.0%	28.6%	3817	116.7%	23.1%	3863	114.3%	26.5%	3696	113.3%	18.4%	3607	145.5%	12.2%	3557	144.4%	20.6%
UP	AMP	161	100.0%	33.3%	134	100.0%	35.5%	144	94.7%	34.3%	156	145.5%	25.5%	106	94.7%	21.6%	120	93.3%	16.1%
	DHY	15	100.0%	73.9%	24	94.7%	64.7%	23	100.0%	78.9%	20	93.3%	63.0%	23	89.5%	57.6%	22	90.5%	40.7%
	NUR	102	93.3%	48.6%	84	95.0%	66.7%	100	100.0%	46.7%	89	100.0%	51.2%	84	93.8%	34.9%	83	94.1%	54.3%
UP Total		278	100.0%	33.3%	242	100.0%	35.5%	267	100.0%	34.3%	265	145.5%	25.5%	213	94.7%	21.6%	225	94.1%	16.1%
Grand Total		4663	100.0%	28.6%	4059	116.7%	23.1%	4130	114.3%	26.5%	3961	145.5%	18.4%	3820	145.5%	12.2%	3782	144.4%	16.1%

Time to Degree for Baccalaureate Recipients SU92-SP98 by Indicator (NFQF, excludes EDP PHR)

Table 2C: Attempted Hour Rate

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	N	Mean Att Hr Rate	StdDev Att Hr Rate	N	Mean Att Hr Rate	StdDev Att Hr Rate	N	Mean Att Hr Rate	StdDev Att Hr Rate	N	Mean Att Hr Rate	StdDev Att Hr Rate	N	Mean Att Hr Rate	StdDev Att Hr Rate	N	Mean Att Hr Rate	StdDev Att Hr Rate
UG	AGR	236	15.3	1.5	211	14.9	1.9	215	14.9	1.9	219	14.9	2.0	210	15.2	2.9	238	16.3	2.6
	AHR	84	14.6	1.5	73	14.2	1.8	47	14.7	1.6	50	14.8	1.5	55	15.2	1.8	56	15.7	1.8
	ART	110	14.3	2.6	133	14.3	1.9	123	14.7	2.4	106	14.7	2.1	123	15.1	2.2	136	15.4	2.2
	ASC	96	14.8	2.6	84	14.2	2.1	57	14.2	2.9	43	14.2	1.9	46	13.8	2.3	41	14.4	4.1
	BIO	154	15.0	2.1	137	15.0	1.9	158	15.3	1.9	171	15.0	2.0	158	15.3	2.1	167	16.3	2.6
	BUS	1034	13.9	1.6	668	13.9	1.9	575	14.3	2.1	575	14.4	2.2	595	14.5	2.4	535	15.4	2.7
	EDU	38	14.2	1.2	42	14.5	2.3	142	15.2	1.7	204	15.0	1.9	167	14.6	1.7	150	15.5	2.1
	ENG	564	15.0	1.8	467	14.6	2.0	498	14.5	2.0	508	14.4	1.9	495	14.6	2.3	459	15.2	2.5
	HEC	322	14.4	1.6	379	14.3	1.7	348	14.2	1.7	304	14.5	1.9	269	14.8	1.9	347	15.4	2.3
	HUM	339	15.2	1.9	326	15.0	2.2	313	14.8	2.2	273	15.0	2.3	326	15.1	2.5	342	15.9	2.5
	JUR	226	14.5	1.8	188	14.2	1.6	192	13.9	1.8	144	13.9	1.7	88	14.5	1.9	61	15.1	1.8
	MPS	96	15.0	2.2	84	14.8	2.0	93	14.9	2.2	92	15.0	2.2	74	15.3	2.7	70	16.1	3.0
	NRE	60	14.9	1.5	86	14.4	1.6	97	14.4	1.6	108	14.5	1.7	118	14.8	2.3	87	15.1	2.2
	SBS	977	14.8	1.7	891	14.6	1.7	954	14.7	2.2	861	14.8	2.3	860	14.7	2.0	833	15.5	2.5
	SWK	49	13.7	1.3	48	13.6	2.0	51	13.5	1.9	38	14.1	1.2	23	13.7	1.5	35	15.1	1.8
UG Total		4385	14.6	1.8	3817	14.5	1.9	3863	14.6	2.1	3696	14.6	2.1	3607	14.8	2.3	3557	15.5	2.5
UP	AMP	161	15.0	2.3	134	14.6	1.7	144	15.0	2.1	156	14.7	1.9	106	15.3	1.8	120	16.6	4.2
	DHY	15	14.6	1.3	24	13.9	1.8	23	14.6	1.6	20	14.0	1.0	23	13.4	1.2	22	15.3	2.3
	NUR	102	14.5	1.4	84	13.9	1.3	100	14.2	1.7	89	14.2	1.6	84	14.0	1.5	83	15.0	1.6
UP Total		278	14.8	2.0	242	14.3	1.6	267	14.7	1.9	265	14.5	1.8	213	14.6	1.8	225	15.9	3.4
Grand Total		4663	14.6	1.8	4059	14.5	1.9	4130	14.6	2.1	3961	14.6	2.1	3820	14.8	2.2	3782	15.6	2.6

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	N	Max Att Hr Rate	Min Att Hr Rate	N	Max Att Hr Rate	Min Att Hr Rate	N	Max Att Hr Rate	Min Att Hr Rate	N	Max Att Hr Rate	Min Att Hr Rate	N	Max Att Hr Rate	Min Att Hr Rate	N	Max Att Hr Rate	Min Att Hr Rate
UG	AGR	236	20.2	11.1	211	22.0	8.8	215	22.7	7.3	219	24.0	6.6	210	37.0	0.0	238	26.4	9.8
	AHR	84	17.2	10.6	73	19.1	9.6	47	18.3	10.8	50	18.3	11.3	55	21.6	11.0	56	20.0	11.7
	ART	110	32.6	10.3	133	21.1	9.3	123	23.0	10.3	106	20.8	10.0	123	22.3	8.2	136	23.3	10.7
	ASC	96	28.1	10.1	84	23.0	10.7	57	26.6	9.1	43	18.5	10.1	46	18.7	7.2	41	30.3	8.3
	BIO	154	21.3	0.5	137	22.2	10.7	158	22.1	10.0	171	19.2	0.5	158	23.2	11.4	167	28.6	8.6
	BUS	1034	24.5	7.6	668	23.5	6.7	575	30.0	5.6	575	25.1	5.6	595	34.7	6.9	535	36.8	8.7
	EDU	38	16.8	11.7	42	21.9	10.0	142	21.8	11.1	204	25.8	10.4	167	20.7	10.0	150	21.9	10.6
	ENG	564	24.5	9.3	467	23.2	8.8	498	25.0	8.6	508	23.2	9.4	495	23.5	1.2	459	33.4	7.8
	HEC	322	20.6	9.9	379	21.1	10.0	348	20.5	9.1	304	24.6	9.3	269	20.2	8.9	347	29.0	9.4
	HUM	339	24.3	10.1	326	31.7	9.7	313	23.4	9.0	273	26.1	9.0	326	39.4	0.6	342	23.3	9.0
	JUR	226	25.8	9.4	188	20.5	10.2	192	24.3	9.6	144	21.5	8.3	88	20.2	8.4	61	19.6	11.2
	MPS	96	25.7	10.6	84	20.8	10.5	93	23.5	9.0	92	19.3	9.9	74	24.0	7.9	70	22.7	9.0
	NRE	60	18.7	11.4	86	18.2	9.8	97	17.7	8.4	108	21.3	11.3	118	26.9	7.5	87	24.6	8.9
	SBS	977	24.5	9.1	891	24.9	8.2	954	43.3	8.1	861	32.4	8.6	860	30.3	5.5	833	33.5	7.8
	SWK	49	18.3	9.8	48	22.2	10.4	51	18.7	8.1	38	17.2	12.2	23	16.6	10.5	35	18.9	10.8
UG Total		4385	32.6	0.5	3817	31.7	6.7	3863	43.3	5.6	3696	32.4	0.5	3607	39.4	0.0	3557	36.8	7.8
UP	AMP	161	35.8	11.1	134	25.2	11.6	144	28.9	11.2	156	24.1	8.1	106	22.9	12.2	120	49.3	11.5
	DHY	15	16.8	12.7	24	17.3	9.9	23	17.2	11.8	20	15.8	12.3	23	15.6	11.2	22	21.1	12.0
	NUR	102	17.5	11.1	84	16.8	10.6	100	17.4	9.3	89	17.4	8.4	84	17.8	6.6	83	19.5	11.2
UP Total		278	35.8	11.1	242	25.2	9.9	267	28.9	9.3	265	24.1	8.1	213	22.9	6.6	225	49.3	11.2
Grand Total		4663	35.8	0.5	4059	31.7	6.7	4130	43.3	5.6	3961	32.4	0.5	3820	39.4	0.0	3782	49.3	7.8

Time to Degree for Baccalaureate Recipients SU92-SP98 by Indicator (NFQF, excludes EDP PHR)

Table 2d: Required Hour Ratio

		DEGR Data																					
		92/93			93/94			94/95			95/96			96/97			97/98						
Group	ASC COL	N	Mean Req Hr Ratio	StdDev Req Hr Ratio	N	Mean Req Hr Ratio	StdDev Req Hr Ratio	N	Mean Req Hr Ratio	StdDev Req Hr Ratio	N	Mean Req Hr Ratio	StdDev Req Hr Ratio	N	Mean Req Hr Ratio	StdDev Req Hr Ratio	N	Mean Req Hr Ratio	StdDev Req Hr Ratio				
UG	AGR	236	106.1%	0.1	211	106.8%	0.1	215	106.1%	0.1	219	106.7%	0.1	210	106.2%	0.1	238	107.3%	0.1				
	AHR	84	102.2%	0.1	73	103.4%	0.1	47	106.3%	0.1	50	106.6%	0.1	55	105.3%	0.1	56	104.5%	0.1				
	ART	110	109.6%	0.1	133	113.5%	0.1	123	112.2%	0.1	106	114.9%	0.1	123	116.4%	0.1	136	115.1%	0.1				
	ASC	96	108.5%	0.1	84	109.8%	0.1	57	110.1%	0.1	43	109.9%	0.1	46	108.1%	0.1	41	109.1%	0.1				
	BIO	154	109.9%	0.1	137	111.3%	0.1	158	113.3%	0.1	171	112.2%	0.1	158	110.4%	0.1	167	111.7%	0.1				
	BUS	1034	108.3%	0.1	668	106.7%	0.1	575	104.9%	0.1	575	107.2%	0.1	595	108.0%	0.1	535	108.9%	0.1				
	EDU	38	108.4%	0.1	42	108.6%	0.1	142	106.4%	0.1	204	106.4%	0.1	167	107.8%	0.1	150	109.0%	0.1				
	ENG	564	108.8%	0.1	467	109.2%	0.1	498	114.5%	0.1	508	114.9%	0.1	495	115.5%	0.1	459	115.7%	0.1				
	HEC	322	105.9%	0.1	379	106.8%	0.1	348	109.4%	0.1	304	111.1%	0.1	269	109.5%	0.1	347	109.9%	0.1				
	HUM	339	107.6%	0.1	326	109.2%	0.1	313	110.4%	0.1	273	111.0%	0.1	326	110.2%	0.1	342	109.3%	0.1				
	JUR	226	105.8%	0.1	188	107.3%	0.1	192	108.7%	0.1	144	107.6%	0.1	88	107.8%	0.1	61	106.1%	0.1				
	MPS	96	112.4%	0.1	84	112.2%	0.1	93	114.2%	0.1	92	112.8%	0.1	74	113.4%	0.1	70	115.7%	0.1				
	NRE	60	109.4%	0.1	86	110.2%	0.1	97	110.1%	0.1	108	109.6%	0.1	118	110.1%	0.1	87	109.9%	0.1				
	SBS	977	106.5%	0.1	891	106.9%	0.1	954	107.1%	0.1	861	107.3%	0.1	860	107.4%	0.1	833	107.0%	0.1				
	SWK	49	105.3%	0.0	48	110.4%	0.1	51	111.8%	0.1	38	111.2%	0.1	23	114.9%	0.1	35	113.9%	0.2				
UG Total		4385	107.5%	0.1	3817	108.0%	0.1	3863	109.0%	0.1	3696	109.5%	0.1	3607	109.7%	0.1	3557	109.8%	0.1				
UP	AMP	161	112.6%	0.1	134	115.5%	0.1	144	117.7%	0.2	156	116.1%	0.2	106	119.2%	0.2	120	114.3%	0.2				
	DHY	15	106.7%	0.1	24	106.5%	0.1	23	112.8%	0.1	20	120.1%	0.2	23	115.7%	0.1	22	115.9%	0.1				
	NUR	102	107.4%	0.1	84	109.4%	0.1	100	110.4%	0.1	89	113.7%	0.2	84	112.8%	0.1	83	113.3%	0.1				
UP Total		278	110.4%	0.1	242	112.5%	0.1	267	114.6%	0.2	265	115.6%	0.2	213	116.3%	0.2	225	114.1%	0.2				
Grand Total		4663	107.7%	0.1	4059	108.3%	0.1	4130	109.3%	0.1	3961	110.0%	0.1	3820	110.0%	0.1	3782	110.1%	0.1				

		DEGR Data																					
		92/93			93/94			94/95			95/96			96/97			97/98						
Group	ASC COL	N	Max Req Hr Ratio	Min Req Hr Ratio	N	Max Req Hr Ratio	Min Req Hr Ratio	N	Max Req Hr Ratio	Min Req Hr Ratio	N	Max Req Hr Ratio	Min Req Hr Ratio	N	Max Req Hr Ratio	Min Req Hr Ratio	N	Max Req Hr Ratio	Min Req Hr Ratio				
UG	AGR	236	139.3%	82.1%	211	165.3%	72.0%	215	150.5%	98.0%	219	148.0%	98.0%	210	139.0%	0.0%	238	150.5%	94.0%				
	AHR	84	140.4%	92.0%	73	135.7%	91.1%	47	143.2%	90.1%	50	125.4%	98.6%	55	141.8%	91.1%	56	127.2%	97.2%				
	ART	110	149.0%	97.5%	133	160.2%	99.5%	123	194.9%	99.0%	106	163.1%	99.0%	123	165.5%	100.0%	136	166.3%	85.1%				
	ASC	96	153.6%	97.4%	84	144.9%	100.0%	57	173.5%	100.0%	43	150.5%	100.0%	46	133.7%	100.0%	41	147.4%	96.4%				
	BIO	154	166.8%	3.1%	137	151.0%	100.0%	158	160.7%	100.0%	171	141.8%	3.1%	158	152.0%	98.0%	167	195.4%	97.4%				
	BUS	1034	170.0%	100.0%	668	166.3%	89.8%	575	146.4%	91.8%	575	160.7%	89.3%	595	159.2%	91.8%	535	168.4%	93.4%				
	EDU	38	151.0%	100.0%	42	131.6%	100.0%	142	128.6%	100.0%	204	140.8%	100.0%	167	136.2%	84.2%	150	147.4%	86.2%				
	ENG	564	173.7%	97.2%	467	245.1%	96.7%	498	184.5%	95.7%	508	172.9%	69.3%	495	188.6%	8.3%	459	211.6%	98.0%				
	HEC	322	153.1%	93.8%	379	149.0%	92.0%	348	144.4%	100.0%	304	166.3%	100.0%	269	141.3%	95.3%	347	159.2%	100.0%				
	HUM	339	165.8%	100.0%	326	155.6%	100.0%	313	180.6%	97.4%	273	171.9%	98.0%	326	177.6%	5.1%	342	169.4%	100.0%				
	JUR	226	126.5%	100.0%	188	144.4%	100.0%	192	161.2%	95.4%	144	133.7%	98.0%	88	129.1%	100.0%	61	131.6%	99.5%				
	MPS	96	206.6%	100.0%	84	156.6%	100.0%	93	160.2%	100.0%	92	163.3%	100.0%	74	159.2%	100.0%	70	169.9%	100.0%				
	NRE	60	142.3%	100.0%	86	162.8%	100.0%	97	147.2%	98.0%	108	175.1%	100.0%	118	145.7%	100.0%	87	147.2%	100.0%				
	SBS	977	154.6%	91.3%	891	150.0%	98.0%	954	166.8%	96.4%	861	172.4%	93.9%	860	171.9%	95.9%	833	199.0%	97.4%				
	SWK	49	117.2%	100.0%	48	149.4%	100.0%	51	170.6%	100.0%	38	141.7%	100.0%	23	144.4%	100.0%	35	209.4%	100.0%				
UG Total		4385	206.6%	3.1%	3817	245.1%	72.0%	3863	194.9%	90.1%	3696	175.1%	3.1%	3607	188.6%	0.0%	3557	211.6%	85.1%				
UP	AMP	161	172.4%	91.3%	134	176.5%	100.0%	144	210.9%	100.0%	156	190.3%	96.9%	106	176.6%	100.0%	120	223.0%	97.8%				
	DHY	15	122.4%	100.0%	24	125.0%	100.0%	23	151.0%	100.0%	20	184.7%	100.0%	23	163.3%	102.0%	22	156.1%	101.5%				
	NUR	102	169.4%	100.0%	84	178.1%	100.0%	100	170.9%	100.0%	89	180.1%	100.0%	84	166.8%	100.0%	83	168.4%	100.0%				
UP Total		278	172.4%	91.3%	242	178.1%	100.0%	267	210.9%	100.0%	265	190.3%	96.9%	213	176.6%	100.0%	225	223.0%	97.8%				
Grand Total		4663	206.6%	3.1%	4059	245.1%	72.0%	4130	210.9%	90.1%	3961	190.3%	3.1%	3820	188.6%	0.0%	3782	223.0%	85.1%				

Time to Degree for Baccalaureate Recipients SU92-SP98 by Indicator (NFQF, excludes EDP PHR)

Table 2e: Part-Time Quarters

		DEGR Data																		
		92/93			93/94			94/95			95/96			96/97			97/98		
Group	ASCOL	N	Mean PTQTRS	StdDev PTQTRS	N	Mean PTQTRS	StdDev PTQTRS	N	Mean PTQTRS	StdDev PTQTRS	N	Mean PTQTRS	StdDev PTQTRS	N	Mean PTQTRS	StdDev PTQTRS	N	Mean PTQTRS	StdDev PTQTRS
UG	AGR	236	1.6	1.8	211	2.2	2.7	215	2.1	3.2	219	2.2	3.0	210	1.9	2.2	238	1.6	2.0
	AHR	84	2.2	2.4	73	2.4	2.8	47	2.0	2.5	50	1.6	1.8	55	1.6	2.0	56	1.4	1.4
	ART	110	3.6	3.2	133	3.3	3.6	123	3.1	3.2	106	3.0	3.3	123	2.6	3.4	136	2.8	2.9
	ASC	96	2.9	3.0	84	3.2	2.9	57	4.1	4.1	43	3.5	2.9	46	4.4	5.4	41	5.4	4.8
	BIO	154	2.2	2.3	137	2.5	2.7	158	2.2	2.6	171	2.4	2.8	158	2.4	2.6	167	2.4	2.9
	BUS	1034	2.6	2.8	668	3.0	3.3	575	2.7	3.4	575	2.8	3.9	595	2.7	3.4	535	2.5	3.1
	EDU	38	2.3	2.1	42	2.4	2.5	142	1.7	2.0	204	2.0	2.3	167	2.4	2.4	150	2.3	2.3
	ENG	564	2.1	2.4	467	2.7	3.0	498	2.7	3.1	508	2.7	3.1	495	2.7	3.2	459	2.9	3.7
	HEC	322	2.9	2.8	379	2.8	2.6	348	3.0	2.8	304	2.8	3.2	269	2.5	3.0	347	2.5	2.9
	HUM	339	2.5	2.4	326	2.8	3.0	313	3.0	3.2	273	2.8	3.1	326	2.6	2.9	342	2.5	3.1
	JUR	226	2.5	2.8	188	2.9	2.7	192	3.3	3.1	144	3.3	3.4	88	2.9	3.7	61	2.4	2.3
	MPS	96	2.9	3.3	84	2.9	2.9	93	2.9	3.4	92	2.9	3.2	74	3.2	3.9	70	3.3	4.0
	NRE	60	2.5	2.1	86	2.5	2.7	97	2.7	3.1	108	2.7	2.5	118	2.6	3.3	87	3.1	3.3
	SBS	977	2.6	2.6	891	2.7	2.9	954	2.9	3.2	861	2.9	2.9	860	2.7	3.3	833	2.8	3.0
	SWK	49	2.7	2.6	48	3.2	3.2	51	4.3	4.9	38	2.4	2.2	23	3.2	3.0	35	2.7	3.6
UG Total		4385	2.5	2.6	3817	2.8	3.0	3863	2.8	3.2	3696	2.7	3.1	3607	2.6	3.2	3557	2.6	3.1
UP	AMP	161	2.3	1.8	134	2.6	1.6	144	2.6	2.0	156	2.8	2.8	106	1.9	1.9	120	1.9	2.0
	DHY	15	2.1	2.2	24	4.0	3.4	23	2.3	2.1	20	3.6	2.5	23	4.1	2.7	22	3.2	2.2
	NUR	102	2.6	2.5	84	2.7	2.4	100	2.8	3.2	89	3.0	3.7	84	2.5	3.9	83	2.1	2.7
UP Total		278	2.4	2.1	242	2.8	2.2	267	2.6	2.6	265	2.9	3.1	213	2.4	3.0	225	2.1	2.3
Grand Total		4663	2.5	2.6	4059	2.8	2.9	4130	2.8	3.1	3961	2.7	3.1	3820	2.6	3.2	3782	2.6	3.1

		DEGR Data											
		92/93		93/94		94/95		95/96		96/97		97/98	
Group	ASCOL	N	Max PTQTRS	N	Max PTQTRS	N	Max PTQTRS	N	Max PTQTRS	N	Max PTQTRS	N	Max PTQTRS
UG	AGR	236	11	211	15	215	31	219	31	210	12	238	12
	AHR	84	13	73	15	47	10	50	8	55	10	56	6
	ART	110	14	133	18	123	14	106	15	123	21	136	17
	ASC	96	14	84	13	57	16	43	10	46	27	41	18
	BIO	154	15	137	17	158	14	171	19	158	14	167	23
	BUS	1034	22	668	26	575	32	575	35	595	25	535	17
	EDU	38	9	42	11	142	10	204	14	167	12	150	12
	ENG	564	18	467	20	498	22	508	20	495	22	459	29
	HEC	322	18	379	14	348	17	304	18	269	20	347	18
	HUM	339	14	326	17	313	17	273	18	326	25	342	22
	JUR	226	20	188	13	192	16	144	18	88	22	61	11
	MPS	96	16	84	14	93	21	92	16	74	26	70	21
	NRE	60	8	86	13	97	19	108	11	118	22	87	20
	SBS	977	21	891	24	954	26	861	19	860	39	833	28
	SWK	49	14	48	13	51	23	38	7	23	12	35	18
UG Total		4385	22	3817	26	3863	32	3696	35	3607	39	3557	29
UP	AMP	161	12	134	7	144	12	156	20	106	9	120	13
	DHY	15	7	24	14	23	6	20	11	23	10	22	8
	NUR	102	12	84	13	100	18	89	18	84	32	83	14
UP Total		278	12	242	14	267	18	265	20	213	32	225	14
Grand Total		4663	22	4059	26	4130	32	3961	35	3820	39	3782	29

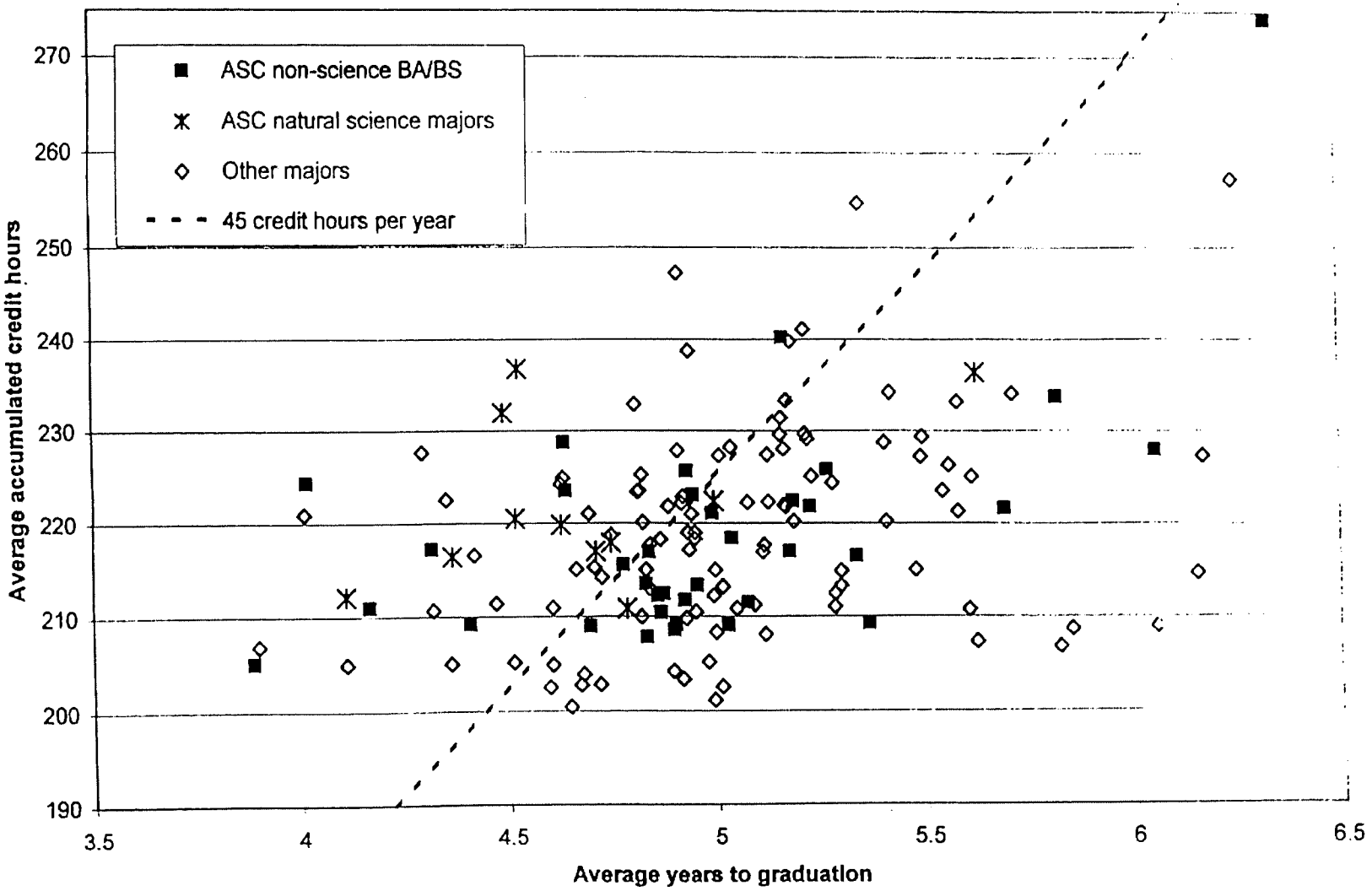
ASCCOLL	MAJOR8	MAJOR3	CountOfSSN	AvgOfHRSEARNED	AvgOfElapsed Yrs
AGR	AG&CONSM	017	6	222.00	5.17
AGR	AGBUS&AE	020	253	210.91	4.61
AGR	AED ECON	022	59	214.61	6.16
AGR	AGR EDUC	025	100	211.37	4.47
AGR	AGSYSMGT	033	56	205.14	4.51
AGR	AGRONOMY	040	137	211.18	5.09
AGR	ANIML SC	055	104	208.06	5.12
AGR	ANIM SCI	056	255	210.62	4.32
AGR	DAIRY SC	125	35	209.74	4.93
AGR	CONSYSMT	127	8	217.13	4.94
AGR	FD SC&NU	188	78	214.95	4.83
AGR	FDBUSMGT	197	22	214.95	5.00
AGR	HORT	225	130	214.82	5.30
AGR	LND HORT	333	1	205.00	3.75
AGR	TURF SCI	334	1	206.00	4.50
AGR	PLNT PTH	392	1	209.00	4.25
AGR	PLTRY SC	405	6	207.33	5.63
AGR	RURL SOC	430	1	206.00	3.25
AGR	PLHLTHMG	499	4	239.75	5.19
AGR	AGR COMM	572	74	215.01	4.67
AHR	ARCH	065	230	222.20	4.92
AHR	LARCH	255	135	222.38	5.13
AMP	CIR TECH	102	22	254.77	5.35
AMP	MED COMM	269	36	218.36	4.95
AMP	MED DIET	270	74	221.86	4.89
AMP	MED ILUS	271	6	257.33	6.25
AMP	HIMS	273	84	223.54	4.82
AMP	MED TECH	274	51	239.80	5.19
AMP	OCC THER	325	208	219.00	4.95
AMP	PHYSTHER	379	186	227.66	4.30
AMP	RAD TECH	425	90	215.21	4.71
AMP	RESPTHER	427	68	224.90	4.64
ART	ART	066	115	233.19	5.58
ART	ART EDUC	067	60	228.78	5.41
ART	DANCE	131	54	216.56	4.42
ART	HIST ART	216	61	219.03	4.93
ART	MUSIC	305	2	241.50	4.00
ART	PHOTOG	370	51	210.71	5.61
ART	THEATRE	465	58	221.02	4.94
ART	CER ART	585	3	219.33	4.75
ART	D-PA-PR	586	30	225.10	5.23
ART	GEN F A	587	16	226.31	5.56
ART	IND DSN	589	76	220.21	5.41
ART	INT DSGN	590	59	223.58	5.55
ART	VSUL DSN	591	79	222.27	5.08
ART	ORCH INS	593	22	220.95	4.01
ART	PIANO	595	2	214.50	4.50
ART	THY COMP	596	9	247.22	4.92
ART	VOICE	597	10	233.30	5.18

ART	MUS HIST	647	1	225.00	3.75
ART	JAZZ STD	650	16	227.38	6.17
ART	GLASSART	675	2	242.00	5.75
ART	PSP-ART	686	1	227.00	6.00
ART	P&C-ART	687	10	206.80	5.83
ASC	HART-ASC	549	27	215.52	4.78
ASC	MUS-ASC	550	30	240.20	5.17
ASC	THEA-ASC	552	12	221.83	5.23
ASC	PSP	598	20	212.40	4.88
ASC	MATH SCI	602	14	233.71	5.82
ASC	HONORS C	649	15	224.40	4.02
ASC	AVIA-ASC	678	250	209.25	5.37
BIO	BIOCHEM	074	68	231.96	4.49
BIO	BIOLOGY	075	232	219.84	4.63
BIO	PLNT BIO	080	9	212.11	4.11
BIO	ENTOMOL	183	4	212.00	4.44
BIO	MOL GEN	195	146	216.40	4.37
BIO	MICRBIOL	285	195	217.89	4.75
BIO	ZOOLOGY	495	295	216.98	4.71
BUS	ACCTING	005	1015	202.76	4.72
BUS	FINANCE	562	747	203.86	4.68
BUS	RSKMGT&I	563	52	202.73	4.67
BUS	INTL BUS	564	136	224.24	4.63
BUS	HUMN RES	566	226	200.46	4.65
BUS	MARKETNG	567	916	202.51	4.60
BUS	OPER MGT	568	230	202.55	5.01
BUS	RE&UR AN	569	70	201.13	4.99
BUS	SPEC MAJ	570	54	212.44	5.29
BUS	TRNS&LOG	571	218	203.34	4.92
BUS	INFO SYS	680	259	210.43	4.95
BUS	ECON-BUS	682	64	205.14	4.98
DHY	DENT HYG	132	132	222.90	4.92
EDU	COM HLTH	113	25	220.24	5.19
EDU	EXER SCI	186	97	225.26	4.82
EDU	HLTH EDU	211	1	211.00	3.75
EDU	ELPRECER	406	365	204.97	4.36
EDU	SPEC ED	408	15	206.87	3.90
EDU	TECHED&T	409	7	211.00	5.29
EDU	SPT&LESR	416	39	218.72	4.75
EDU	SPLNDSED	560	1	202.00	3.75
EDU	EL ED1-8	611	36	204.92	4.11
EDU	INDTECED	617	13	208.92	6.06
EDU	DEVHANED	620	1	206.00	4.75
EDU	REC EDUC	625	142	213.25	5.30
EDU	SO ST ED	628	1	237.00	13.75
ENG	AERO ENG	010	137	227.31	5.01
ENG	FA&B ENG	030	82	228.05	5.17
ENG	FA&B ENG	031	4	230.75	6.00
ENG	AVIATION	073	67	229.15	5.22
ENG	CERAM EN	090	33	221.03	4.70

ENG	CHEM ENG	095	223	232.87	4.81
ENG	CS&E	097	76	224.38	5.28
ENG	CIVIL EN	105	335	228.25	5.04
ENG	CPTR/INF	117	467	229.39	5.50
ENG	ELEC ENG	171	339	231.38	5.16
ENG	M&LINFSC	198	8	241.13	5.22
ENG	ECE	203	95	234.22	5.42
ENG	IND ENG	235	273	229.63	5.16
ENG	MECH ENG	267	608	221.81	5.17
ENG	METAL EN	280	41	227.44	5.13
ENG	MATSC&EN	281	40	227.85	4.91
ENG	WELD ENG	490	118	227.25	5.50
ENG	SURVEY	648	38	234.05	5.72
ENG	ENG PHYS	692	24	229.67	5.22
HEC	HDFS	187	651	214.17	4.73
HEC	FCS ED	221	39	238.74	4.94
HEC	FM RES M	223	562	210.82	5.05
HEC	HUMN NTR	231	162	223.41	4.81
HEC	TXTL&CLO	462	296	212.99	4.84
HEC	HEC JOUR	640	12	204.17	4.90
HEC	HOSP MGT	642	184	217.66	5.12
HEC	NUTRTION	643	71	222.56	4.36
HUM	AFAM&AST	079	40	221.68	5.69
HUM	CHINESE	101	18	228.78	4.64
HUM	CLASSICS	110	15	225.67	4.93
HUM	ENGLISH	181	928	213.30	4.96
HUM	FRENCH	190	51	223.55	4.64
HUM	GERMAN	206	25	225.84	5.27
HUM	HEBREW	214	6	211.00	4.17
HUM	HISTORY	215	420	211.71	4.93
HUM	ITALIAN	245	6	274.17	6.33
HUM	JAPANESE	248	38	221.13	4.99
HUM	JEWSH ST	249	11	205.09	3.89
HUM	LINGUIST	262	18	228.00	6.06
HUM	MEDIEVAL	278	4	238.00	6.19
HUM	MDRN GRK	298	3	210.00	5.33
HUM	PHILOS	365	66	223.09	4.95
HUM	PORTGESE	400	4	248.50	4.31
HUM	REL STDS	433	7	217.00	5.18
HUM	RUSSIAN	435	11	217.18	4.32
HUM	SLAVIC	438	32	222.47	5.19
HUM	SPANISH	450	142	216.89	4.84
HUM	WOM STDS	493	77	212.21	4.86
HUM	ANC HIST	599	4	248.00	7.00
JUR	JOURNAL	250	901	210.37	4.87
MPS	ASTRON	071	5	237.00	5.35
MPS	CHEM	100	136	220.53	4.52
MPS	GEOL SCI	205	62	236.39	5.63
MPS	MATH	265	187	222.43	5.00
MPS	PHYSICS	380	42	236.76	4.53

MPS	STAT	458	2	231.50	4.75
MPS	ACT SCI	673	83	210.81	4.79
NRE	FORESTRY	189	19	218.26	4.87
NRE	URBN FOR	398	4	202.25	3.94
NRE	SOIL SCI	500	1	202.00	4.50
NRE	ENVIRSCI	501	134	220.12	4.83
NRE	ENV CE&I	502	60	209.93	4.82
NRE	SUSRESMT	503	59	212.20	5.00
NRE	ENV EDUC	575	1	250.00	4.75
NRE	FISH MGT	576	29	213.17	5.02
NRE	FRST MGT	577	6	221.33	5.58
NRE	RSRC MGT	578	7	208.29	5.00
NRE	ENV INT	580	7	204.86	4.61
NRE	ENV COMM	581	12	208.67	5.85
NRE	PR&T ADM	582	66	214.94	5.48
NRE	NRESDEV	583	47	225.13	5.62
NRE	WILD MGT	584	105	216.90	5.11
NUR	NURSING	315	546	217.73	4.84
OPT	PHYS OPT	388	1	265.00	10.75
SBS	ANTHROP	060	141	218.44	5.04
SBS	COMMUNIC	114	1055	208.56	4.90
SBS	ECON	140	366	216.48	5.34
SBS	GEOG	200	70	209.06	5.03
SBS	INT STDS	240	305	213.45	4.83
SBS	POLIT SC	395	630	207.78	4.83
SBS	PSYCH	420	1415	208.97	4.70
SBS	SOCIOL	445	350	211.48	5.08
SBS	SPH/HRNG	454	306	209.17	4.41
SBS	CRIMINOL	655	754	209.11	4.90

Time to Graduation: ASC majors vs other majors
NFQF - 1992-98 graduation, majors with > 5 graduates only



Item 6

The Ohio State University

Enrollment Patterns Of Undergraduate Students

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* Special Thanks to Jean Nippa, Systems Analyst, for her support in the analysis of the Archival Data.

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Introduction

The Office of Strategic Analysis and Planning was asked to supply information regarding enrollment patterns of OSU undergraduate students for the University Committee examining the GEC. Specifically, the Committee desired answers to the following questions:

1. How many students maintained a full (15 Credit or more) load during their time at OSU?
2. How many students stopped-out of the University for a quarter or more during their undergraduate experience?
3. How many students were enrolled on a part-time basis?
4. Is there any consistent experience that emerges as affecting the time to degree of undergraduate students?

Other questions and issues emerged as data was gathered and analyzed. It was found that enrollment behavior might also be affected by any number of personal choices made by the student.

To examine the above questions, two separate analyses were done. One analysis used the student enrollment database to track the behavior of students who completed their degrees. A second analysis was done using data compiled from a student survey administered in Spring Quarter 1998.

Analysis 1: Evaluation of Archival Data

Examination of Student Enrollment Data

The Student Enrollment Data was used to directly address the Committee's questions. To address the questions, we examined a cohort of students who graduated in FY2000. There were 6746 Bachelor degrees awarded in fiscal year 2000. These degrees were awarded to 6654 students. Of these students 4237 matriculated to OSU as New First Quarter Freshmen (NFQF). For consistency, this is the group of students included in the analysis. Though data is available for transfer students, the number of quarters on campus and their use of OSU GEC courses may be quite different from the NFQF.

Student ID numbers were used to track these students from the first quarter and fiscal year in which they were identified as NFQF to the quarter during which they graduated in FY2000. Approaching the question in this way narrows the number of students to track and eliminates possible data errors due to inconsistent data entry and category definition[1].

The graduation cohort (COHORT) entered OSU as NFQF's between the years 1991 to 1999. Their average time to degree was 4.01 years. Approximately 74.8% of the students who were first enrolled as NFQF's and completed their degree in FY2000 graduated in four years or less. An additional 15.1% and 10.1% graduated in 5 years and six years or more, respectively. (See Figure 1.)

Q1: How many students maintained a full (15 credit or more) load?

A majority of the COHORT students took full course loads over the course of their

[1] This data only represents those students who have completed their degree. Time to degree does not represent a Graduation Rate. The nature of the data sources used for analysis did not enable the researcher to perform a cohort study. All students were NFQF's when they first enrolled at The Ohio State University and they have all graduated.

academic career. A full load is defined as 15 or more credit hours in one quarter. When including summer quarter in the calculation, 27% of students averaged 15 credit hours and 32.1% had average course load greater than 15 credit hours. 40.9% averaged less than 15 credit hours (See Figure 2). However, because most students typically do not take classes during the summer, a more accurate assessment of student course load does not include summer quarter. When enrollment is defined as enrollment during fall, winter, and spring quarters exclusively, 41.1% averaged more than 15 credit hours per quarter, 29.5% averaged 15 credit hours per quarter, while 29.3% averaged less than 15 credit hours per quarter. (See Figure 3.)

Most students average 15 credit hours for most of their undergraduate career. However, taking less than 15 credit hours is not an unusual event. Many students in the COHORT (4057 students or 96%) took less than 15 credit hours for at least one quarter during their time at OSU. On average the number of quarters in which students took fewer than 15 credit hours was 5.895. Approximately 7.6% of the students had fewer than 15 credit hours for one quarter while 55.9% took fewer than 15 credit hours between 2 and six quarters. The percentage of students who took fewer than 15 credit hours for more than six quarters was 36.5%. (See Figure 4.)

Conclusion: If "maintaining a full load" is defined as taking 15 or more credit hours for all the quarters in which they are enrolled, then few students maintain full loads. However, most students average 15 credit hours per quarter over the course of their academic career. This suggests that many students are experiencing a balance of heavy and light course loads throughout their academic career. These highs and lows of credit hours may be explained by choices students make (i.e. becoming a part-time student for work reasons) or attributed to organizational issues (i.e. closed courses).

Q2: How many students stopped-out of the university for a quarter or more?

When students do not enroll in classes for at least one quarter (other than summer) they are classified as Returning Students the following quarter in which they enroll. An examination of the enrollment status of the 4237 COHORT students showed that 17.4% or 739 students were not continuously enrolled for at least one quarter. Of these 739 students 74.3% (549 students) were classified as a returning student for only one quarter, 19.2% (142 students) for two quarters, 5.3% (39 students) for three quarters, 1.1% (8 students) for four quarters, and 0.1% (1 student) for five quarters. (See Figure 5.)

Conclusion: Among students who begin OSU as NFQF, less than 20% choose to stop-out. Of the ones that do stop-out, most tend to do this only once during their time in the undergraduate program.

Q3: How many students enrolled on a part-time basis?

A student is classified as part-time when enrolled for fewer than 12 credit hours. Among the COHORT students, 2974 of the 4237 students, or 70.2%, were enrolled part-time for at least one quarter. Of these 2974 students, 37.6% were part-time for one quarter, 56.3% were part-time between two and six quarters, and 6.1% for more than six quarters. (See Figure 6.)

Conclusion: A majority of undergraduate students enroll at OSU part-time for at least one quarter. The number of quarters a student is classified as part-time may relate directly to

the number of quarters a student takes less than 15 credit hours. This pattern supports the idea that many students have peak and valley enrollment patterns. The drop to part-time status must ultimately affect time to degree unless it is offset by greater than average course loads in other semesters.

Analysis 2: Self-Reported Survey Data

Examination of the 1998 Undergraduate Student Survey Data

In the Spring Quarter of 1998, the Office of Strategic Analysis and Planning administered a survey to 9000 undergraduate students. The selected sample was stratified by college and rank. The response rate was approximately 26%. Of the respondents, 1987 students provided their social security number so that survey data could be linked with other institutional data. This database was examined to provide additional insight into behaviors associated with student time to degree. Of the 1987 students for whom we had institutional data, 734 or 36.9% had graduated by the year 2000. Of these 734, 525 had entered the university as NFQF. This group of students (SURVEY) is the set of students used in this analysis.

The student respondents in this analysis graduated in 1998, 1999 and 2000, and were initially admitted to the university over a span of 16 years, 1981-1997. The mean time spent at OSU was 5.28 years, with a time to degree range from 3.00 to 18.75 years. Students were split into groups based on quartiles for the variable, *Time at OSU* which was calculated as the time span between the first quarter of their enrollment and the quarter in which they graduated. Using Tukey HSD to determine which groups differ significantly from the others, it was found that the most significant difference existed between the students who had graduated in less than 4.25 years **(Timely Graduates)**[2] and the students who graduated in more than 5.25 years **(Later Graduates)**. Thus in among the survey respondents, 39.8% were Timely Graduates and 22.3% were Later Graduates. The remaining students (37.9%) fell somewhere in-between these two categories (Figure 7). The number of quarters enrolled per year for those students who completed the survey ranged from .5 quarters to 3.8 quarters. Thirty percent (30%) of the students did not take classes for at least three quarters. Thus, these students were not continuously enrolled. On the other hand, twenty-five percent were enrolled for all four quarters. The mean enrollment was 2.955 quarters.

The surveyed students answered a wide variety of questions about their daily lives and their satisfaction with various aspects of their college experience. Using Time at OSU as the independent variable, survey responses were analyzed using ANOVA or analysis of variance to determine if there were significant differences between the groups who had graduated in different time periods. Twenty-five variables were significant at the .05 level. The results are presented in Table 1 and reported for those students who are categorized as Timely Graduates and Later Graduates. Eleven of the 25 variables (identified by italics in Table 1) are of particular interest due to the fact that these passed the homogeneity of variance test at the .05 level of significance.

[2] Four years and a quarter is also the Board of Regents definition for Timely Graduates.

Finally, these variables were examined to determine if significant differences existed when the students were identified based on sex and race. The students are 59.2% female and 40.8% male. White students made up 82.8% of the group while African Americans, Asian American, American Indian, Mexican American, Puerto Rican American, Other Latino and Other Racial/Ethnicity together made up 17.2%. All minority students were collapsed into one category, Students of Color, to facilitate further analysis. Again, using ANOVA and testing for the homogeneity of variances, certain variables were revealed to be significant when examined by gender and race/ethnicity categories.

Summary of the Significant Differences

The variables which showed significant differences between Timely Graduates and Later Graduates can be put into at least four categories.

1) Behaviors that could increase time to degree.

Analysis of the data shows a clear pattern of differences between the Timely Graduates and Later Graduates. Timely Graduates tended to be more engaged in on-campus activities like fraternities, sororities, or clubs. They tended to socialize more with a more diverse community of students. Later Graduates were more engaged in events that were outside the university community. For example, in the survey students were asked whether or not they worked while they were undergraduates. While many of the students worked, Later Graduates were much more likely to report working at a full time job (40%) or working more than 20 hours per week (44.4%). Later Graduates were also more likely to report marriage and child care as part of their student experience and were more likely to commute. Consistent with these results, or perhaps because of these results, Later Graduates were more likely to report taking a leave of absence or withdrawing from school at some point in their career.

2) Preparation for undergraduate work.

Analysis of the data shows that Timely Graduates tend to have higher GPAs than Later Graduates. Mean GPA at graduation for the surveyed students was 3.060, ranging from 1.9 to 4.0. Thirty-eight percent (38%) of the Timely Graduates had a GPA greater than 3.465 compared to just nine percent (9%) of the Later Graduates. Fifty-seven percent (8%) of the Later Graduates had a GPA of 2.69 or less compared to just eight percent (8%) of the Timely Graduates. In addition, Later Graduates were more likely to have taken a developmental class while Timely Graduates were more likely to have taken an Honors curriculum. These results suggest that the Later Graduates may have arrived at OSU somewhat less prepared for the academic challenges they would face.

3) Satisfaction with the student experience

Several questions were asked which gauged the level of satisfaction of undergraduate students. Timely Graduates were noticeably more satisfied with their experiences at the University. Though there were areas where neither set of students was particularly satisfied, Timely Graduates were still relatively more satisfied than Later Graduates. Satisfaction with the sense of community on campus was particularly low for Later Graduates. This may be the result of the level in which those students made choices to or had time to participate in campus life.

4) Self-assessment of abilities and attitudes

There were particularly interesting differences between the self-assessments of the Timely Graduates and Later Graduates. Timely Graduates were more likely to assess themselves as above average in academic ability and drive to achieve. Timely Graduates rated their knowledge of a particular field as much stronger. However, they did not seem to think that their general knowledge, their public speaking abilities, or their math skills had been particularly enhanced during their undergraduate experience. This suggests that these students may have come in with a higher level of competence in these areas and do not perceive much value added in general knowledge.

The data associated with Later Graduates shows a different picture. Later Graduates tend to report more social self-confidence. This may reflect their more "mature" life experiences and responsibilities. Later Graduates are much more likely to report enhancement of their general knowledge, their public speaking skills and their math skills. This group also reports, though, less improvement in their knowledge of a particular field of study. These results suggest that the Later Graduates may start with lower levels of overall academic preparation and perceive a great deal of value added in the more general curriculum.

Differences by Gender and Race

Gender differences are evident when comparing Timely and Later Graduates (See Table 2). For example, more female than male Timely Graduates had taken Reading/Developmental Courses. Also, half of the male Later Graduates (51.6%) were working more than 20 hours per week compared to 35.8% of the female Later Graduates. Finally, a greater percentage of female than male Later Graduates felt that they had much stronger public speaking abilities.

There are also differences between white students and students of color who are Timely and Later Graduates (See Table 3). More Later Graduates who are students of color (50%) have taken reading/developmental classes. Also, a higher percentage of students of color overall have been lonely or homesick (7.1%). It is more likely that students of color have socialized with someone from a different ethnic group (>50%). However, more white Timely Graduates (20%) worked more than 20 hours a week than Timely Graduates who are students of color (3.5%). Finally, more white Later Graduates (64%) said that their knowledge of their particular field is much stronger; while more Timely Graduates who are students of color (21%) said that their mathematical skill were much stronger.

Overall Conclusions

Based on the data that have been gathered and analyzed, a pattern of enrollment does emerge. Undergraduate students average 15 credit hours over the course of their academic career. Students fluctuate between full-time and part-time enrollment. Students also vary in the number of credit hours taken per quarter, sometimes more than 15, sometimes less than 15; the pattern seems to be more like peaks and valleys than a consistent number of credit hours. While most students graduate in less than 5 years those who do not are more likely to have stopped out of the university. Timely graduates have better GPAs than Later Graduates. Other issues that affect the time to degree include behavioral choices such as working and preparation issues (e.g. Reading/Developmental Classes). These differences are related to

differences then in satisfaction and differences in their perception of learning gains from their student experience. Clear distinctions can be seen between Timely and Later Graduates and between gender and race/ethnicity categories.

Table 1. Survey Responses of Timely and Later Graduates

Significant Variables	Timely Graduates	Later Graduates
Behaviors That Could Increase Time To Degree		
1. JOINED A FRATERNITY OR SORORITY (% yes)	20.10%	10.30%
2. STUDENT CLUBS/GROUPS (% spent no time)	37.20%	61.20%
3. SOCIALIZED W/SOMEONE OF DIFF ETHNIC GRP (% Frequently)	*40.40%*	*33.30%*
4. WORKING (FOR PAY) (% >20 hrs/week)	*18.30%*	*44.40%*
5. WORKED FULL-TIME WHILE STUDENT (% yes)	8.60%	40.20%
6. TOOK A LEAVE OF ABSENCE (% yes)	3.80%	37.60%
7. WITHDREW FROM SCHOOL (% yes)	0.50%	34.20%
8. GOT MARRIED (% yes)	1.00%	12.00%
9. HOUSEHOLD DUTIES/CHILD CARE (% spent no time)	30.90%	21.40%
10.COMMUTING (% spent no time)	*50.70%*	*28.20%*
Preparation		
11. GPA (% > 3.465)	38.30%	9.40%
12. TAKEN READING/DEVELOPMENTAL CLASSES (% yes)	10.00%	24.80%
13. IN HONORS/ADVANCED COURSES (% yes)	45.90%	17.90%
Satisfaction with the Student Experience		
14. OVERALL QUALITY OF INSTRUCTION (% Satisfied and Very Satisfied)	73.10%	62.00%
15. SENSE OF COMMUNITY ON CAMPUS (% Satisfied and Very Satisfied)	*48.60%*	*36.30%*
16. STUDENT HOUSING (% Satisfied and Very Satisfied)	*43.30%*	*27.60%*
17. LEADERSHIP OPPORTUNITIES (% Satisfied and Very Satisfied)	*51.50%*	*31.00%*
18. OVERALL COLLEGE EXPERIENCE (% Satisfied and Very Satisfied)	88.40%	73.30%
Self Assesment of Abilities and Attitude		
19. ACADEMIC ABILITY (% Above Avg. and Top 10%)	81.80%	65.80%
20. DRIVE TO ACHIEVE (% Above Avg. and Top 10%)	83.30%	63.60%
21. SELF-CONFIDENCE (SOCIAL) (% Above Avg. and Top 10%)	*45.90%*	*66.60%*
22. GENERAL KNOWLEDGE (% much stronger)	*37.80%*	*62.40%*
23. KNOWLEDGE OF PARTICULAR FIELD (% much stronger)	57.40%	38.50%
24. PUBLIC SPEAKING ABILITY (% much stronger)	*11.50%*	*23.90%*
25. MATHEMATICAL SKILLS (% much stronger)	*7.70%*	*12.80%*
26. BEEN LONELY OR HOMESICK (% Frequently)	*5.80%*	*2.60%*

Italics - group variances are equal

Table 2. Survey Responses of Timely and Later Graduates by Gender

Significant Variables	Male Students		Female Students	
	Timely Graduates	Later Graduates	Timely Graduates	Later Graduat
Behaviors That Could Increase Time To Degree				
1. JOINED A FRATERNITY OR SORORITY (% yes)	23.20%	14.10%	18.60%	5.70%
2. STUDENT CLUBS/GROUPS (% spent no time)	31.90%	58.70%	39.80%	64.10%
3. SOCIALIZED W/SOMEONE OF DIFF ETHNIC GRP (% Frequently)	37.70%	34.40%	41.70%	32.10%
4. WORKING (FOR PAY) (% >20 hrs/week)	20.30%	51.60%	17.30%	35.80%
5. WORKED FULL-TIME WHILE STUDENT (% yes)	8.70%	42.20%	8.60%	37.70%
6. TOOK A LEAVE OF ABSENCE (% yes)	1.40%	39.10%	5.00%	35.80%
7. WITHDREW FROM SCHOOL (% yes)	1.40%	32.80%	0.00%	35.80%
8. GOT MARRIED (% yes)	0.00%	12.50%	1.40%	11.30%
9. HOUSEHOLD DUTIES/CHILD CARE (% spent no time)	53.60%	25.00%	19.60%	16.90%
10.COMMUTING (% spent no time)	56.20%	34.40%	47.80%	20.70%
Preparation				
11. GPA (% > 3.465)	43.50%	10.90%	35.70%	7.50%
12. TAKEN READING/DEVELOPMENTAL CLASSES (% yes)	5.80%	25.00%	12.10%	24.50%
13. IN HONORS/ADVANCED COURSES (% yes)	53.60%	18.80%	42.10%	16.90%
Satisfaction with the Student Experience				
14. OVERALL QUALITY OF INSTRUCTION (% Satisfied and Very Satisfied)	76.80%	65.60%	71.20%	57.60%
15. SENSE OF COMMUNITY ON CAMPUS (% Satisfied and Very Satisfied)	55.10%	42.90%	45.30%	28.80%
16. STUDENT HOUSING (% Satisfied and Very Satisfied)	40.60%	29.70%	44.60%	25.00%
17. LEADERSHIP OPPORTUNITIES (% Satisfied and Very Satisfied)	53.60%	32.80%	50.40%	28.80%
18. OVERALL COLLEGE EXPERIENCE (% Satisfied and Very Satisfied)	89.80%	73.40%	87.10%	73.10%
Self Assesment of Abilities and Attitude				
19. ACADEMIC ABILITY (% Above Avg. and Top 10%)	86.90%	70.30%	79.30%	60.40%
20. DRIVE TO ACHIEVE (% Above Avg. and Top 10%)	85.50%	65.60%	82.10%	60.40%
21. SELF-CONFIDENCE (SOCIAL) (% Above Avg. and Top 10%)	49.30%	65.60%	44.30%	67.90%
22. GENERAL KNOWLEDGE (% much stronger)	42.00%	62.50%	35.70%	62.30%
23. KNOWLEDGE OF PARTICULAR FIELD (% much stronger)	59.40%	54.70%	56.40%	62.30%
24. PUBLIC SPEAKING ABILITY (% much stronger)	15.90%	18.80%	9.30%	64.10%
25. MATHEMATICAL SKILLS (% much stronger)	11.60%	9.30%	5.70%	16.90%
26. BEEN LONELY OR HOMESICK (% Frequently)	2.80%	3.10%	7.10%	1.90%

Table 3. Survey Responses of Timely and Later Graduates by Ethnicity

Significant Variables	White Students		Students of Color	
	Timely Graduates	Later Graduates	Timely Graduates	Later Gradua
Behaviors That Could Increase Time To Degree				
1. JOINED A FRATERNITY OR SORORITY (% yes)	22.10%	13.50%	7.10%	0.00%
2. STUDENT CLUBS/GROUPS (% spent no time)	37.30%	59.10%	50.00%	67.90%
3. SOCIALIZED W/SOMEONE OF DIFF ETHNIC GRP (% Frequently)	37.50%	26.90%	59.20%	53.60%
4. WORKING (FOR PAY) (% >20 hrs/week)	20.50%	42.70%	3.50%	50.00%
5. WORKED FULL-TIME WHILE STUDENT (% yes)	8.30%	38.20%	10.70%	46.30%
6. TOOK A LEAVE OF ABSENCE (% yes)	3.30%	32.50%	7.10%	53.60%
7. WITHDREW FROM SCHOOL (% yes)	0.50%	32.50%	0.00%	39.30%
8. GOT MARRIED (% yes)	1.10%	11.20%	0.00%	14.30%
9. HOUSEHOLD DUTIES/CHILD CARE (% spent no time)	26.80%	22.50%	57.10%	17.80%
10.COMMUTING (% spent no time)	53.10%	33.70%	35.70%	10.70%
Preparation				
11. GPA (% > 3.465)	35.90%	7.90%	53.60%	14.30%
12. TAKEN READING/DEVELOPMENTAL CLASSES (% yes)	10.50%	16.90%	7.10%	50.00%
13. IN HONORS/ADVANCED COURSES (% yes)	46.90%	17.90%	39.30%	17.90%
Satisfaction with the Student Experience				
14. OVERALL QUALITY OF INSTRUCTION (% Satisfied and Very Satisfied)	73.30%	63.60%	71.40%	57.10%
15. SENSE OF COMMUNITY ON CAMPUS (% Satisfied and Very Satisfied)	50.00%	36.30%	39.30%	33.30%
16. STUDENT HOUSING (% Satisfied and Very Satisfied)	42.80%	30.70%	46.40%	17.90%
17. LEADERSHIP OPPORTUNITIES (% Satisfied and Very Satisfied)	53.90%	36.30%	35.70%	14.30%
18. OVERALL COLLEGE EXPERIENCE (% Satisfied and Very Satisfied)	89.90%	75.00%	78.60%	67.90%
Self Assessment of Abilities and Attitude				
19. ACADEMIC ABILITY (% Above Avg. and Top 10%)	81.20%	66.30%	85.70%	64.30%
20. DRIVE TO ACHIEVE (% Above Avg. and Top 10%)	82.30%	66.30%	89.30%	53.60%
21. SELF-CONFIDENCE (SOCIAL) (% Above Avg. and Top 10%)	46.90%	68.50%	39.30%	60.70%
22. GENERAL KNOWLEDGE (% much stronger)	37.50%	62.90%	39.30%	60.70%
23. KNOWLEDGE OF PARTICULAR FIELD (% much stronger)	59.10%	64.00%	46.40%	39.30%
24. PUBLIC SPEAKING ABILITY (% much stronger)	11.60%	24.70%	10.70%	21.40%
25. MATHEMATICAL SKILLS (% much stronger)	5.50%	15.70%	21.40%	3.60%
26. BEEN LONELY OR HOMESICK (% Frequently)	5.60%	1.10%	7.10%	7.10%

Figure 1. Time to Degree of COHORT

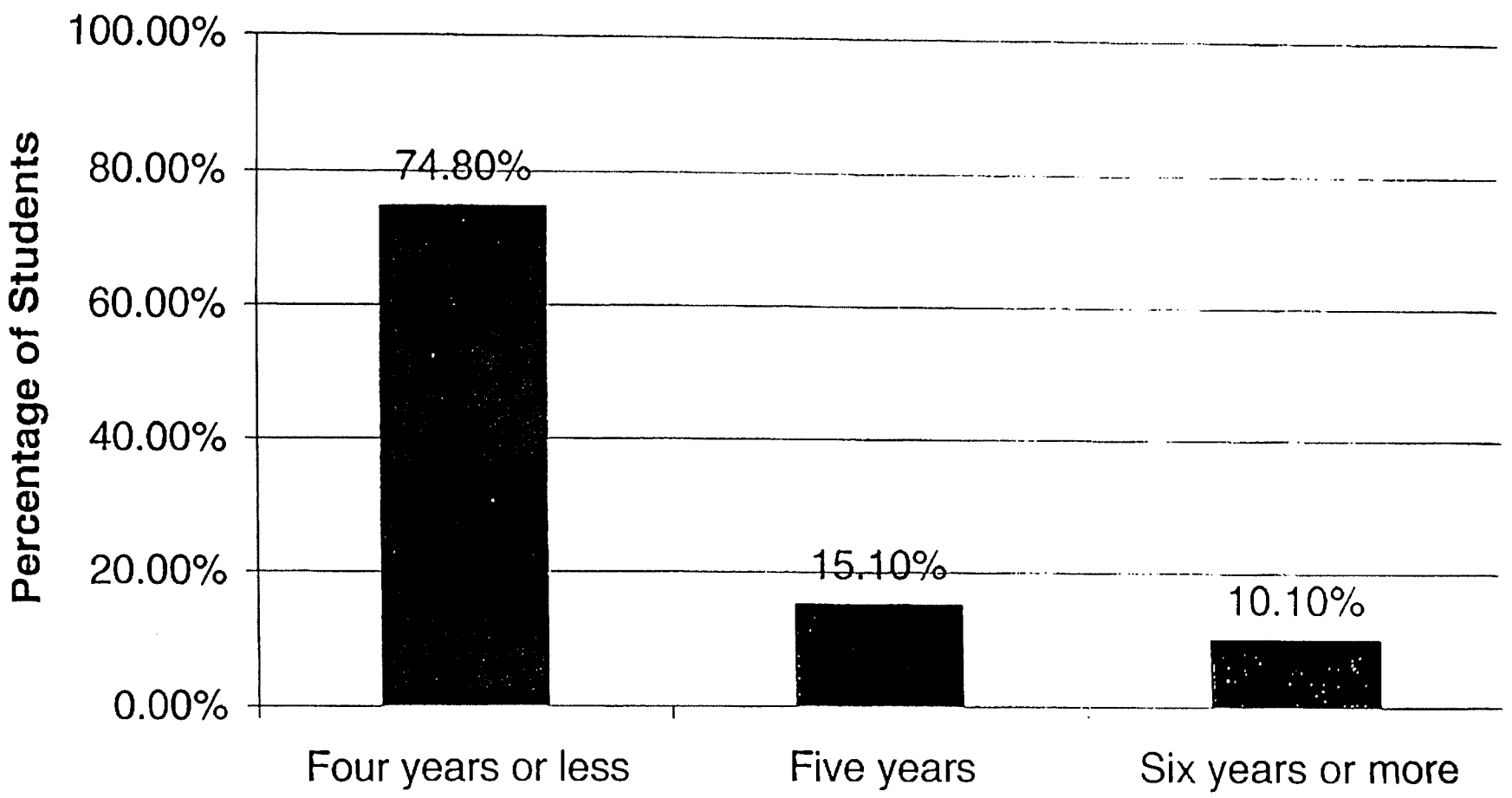


Figure 2. Average Student Course Load during all Four Quarters

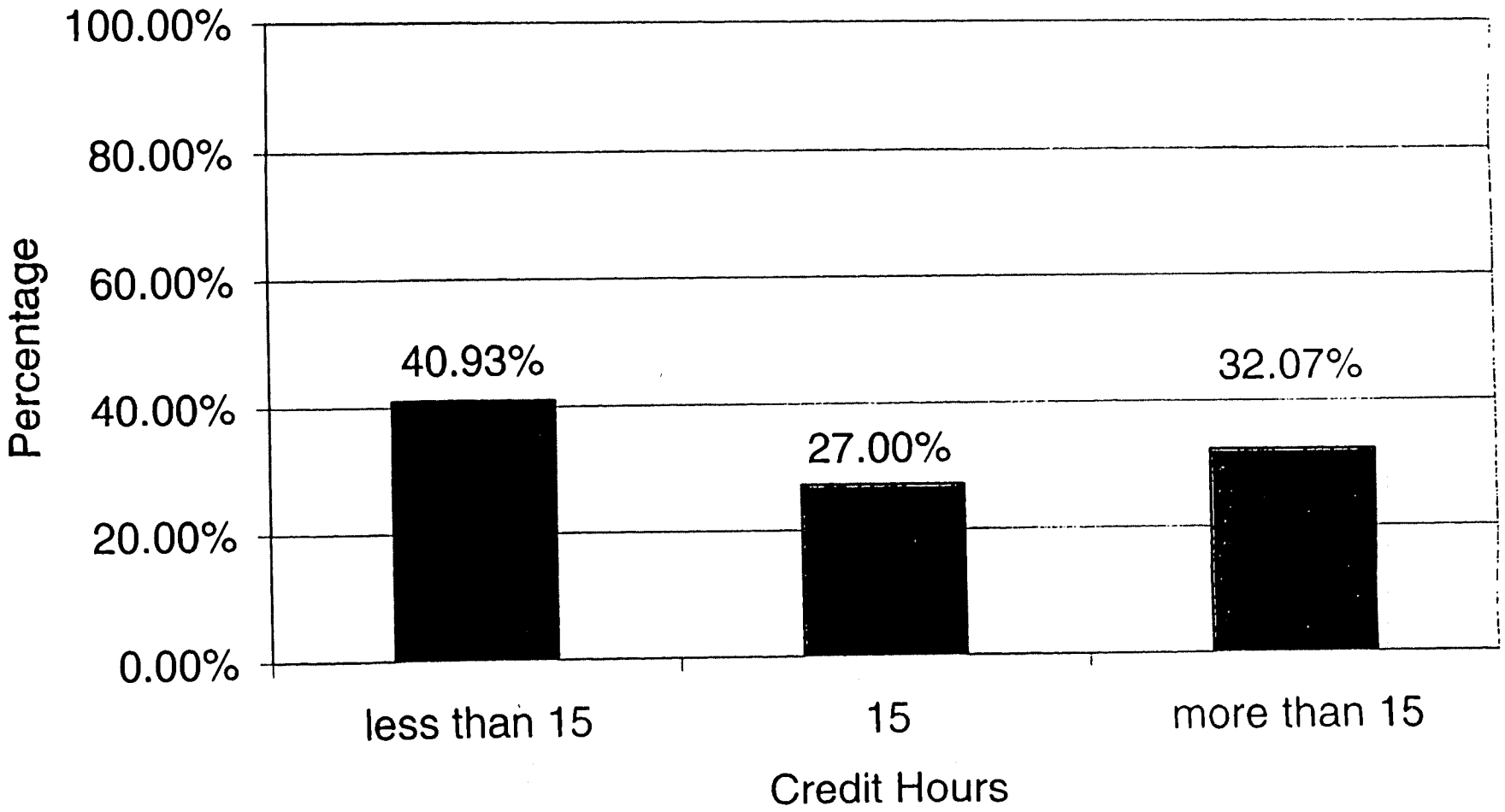


Figure 3. Average Course Load During Fall, Winter and Spring Quarters

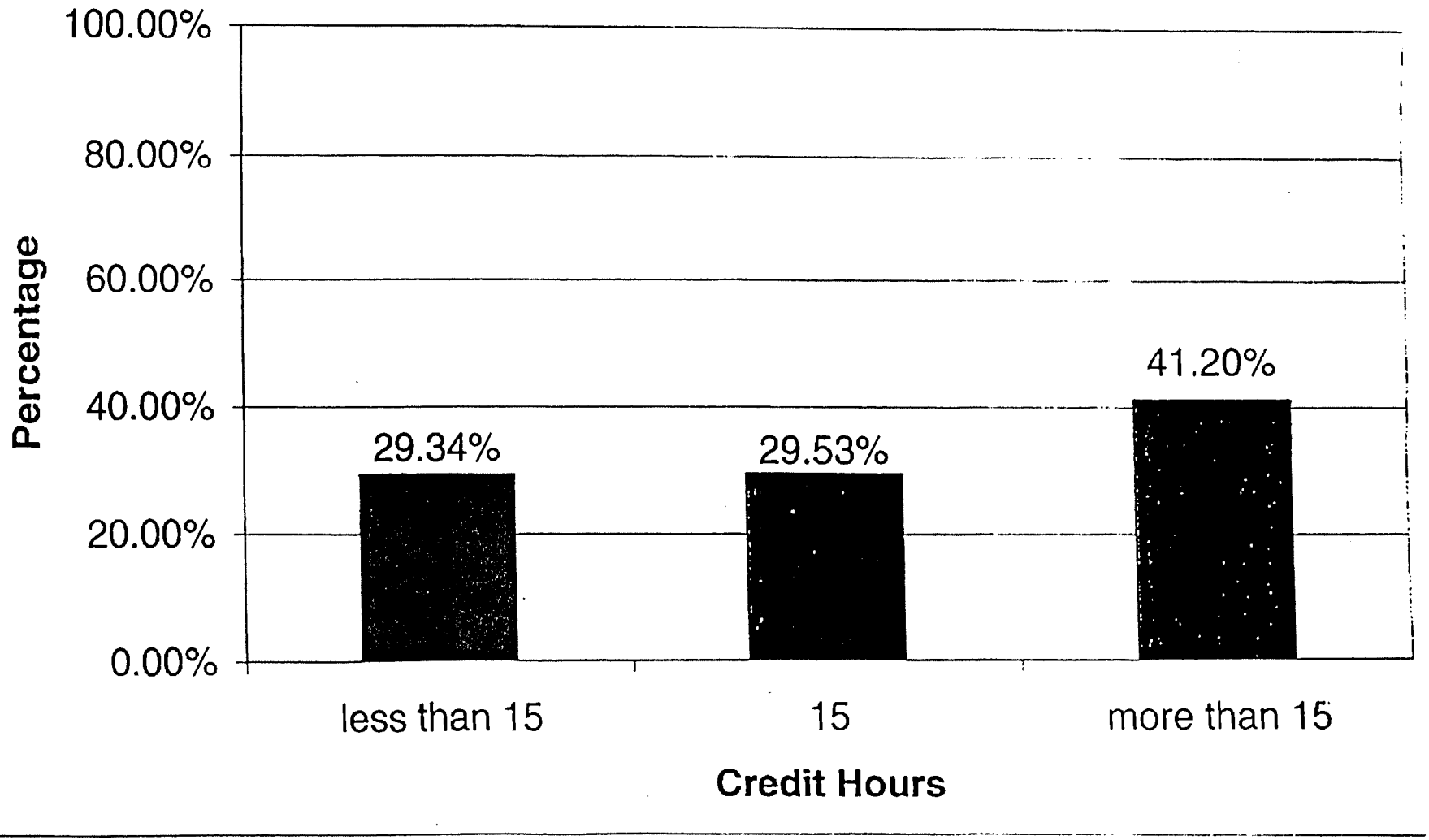


Figure 4. Percentage of Students Taking Less than 15 Credit Hours

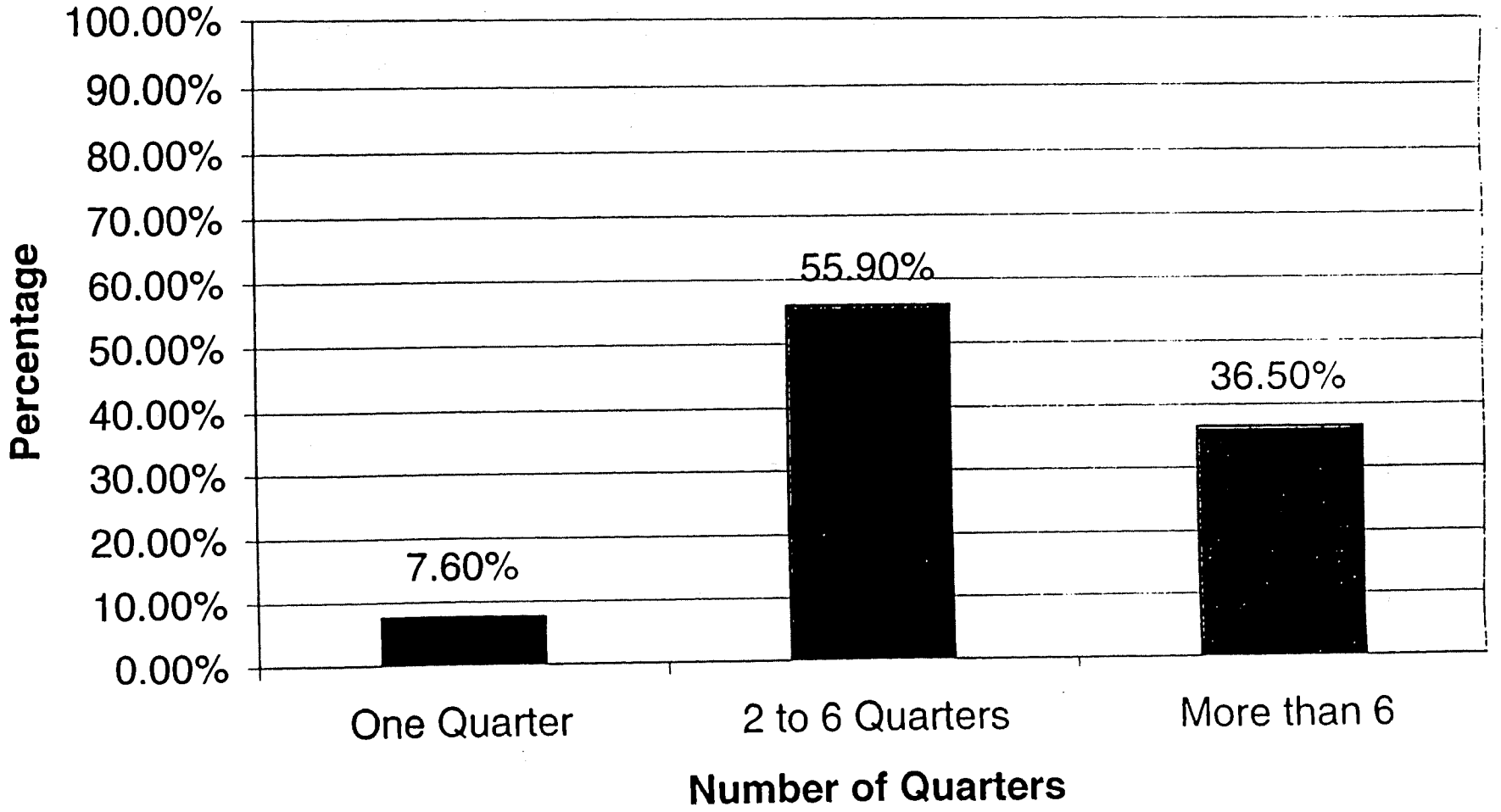
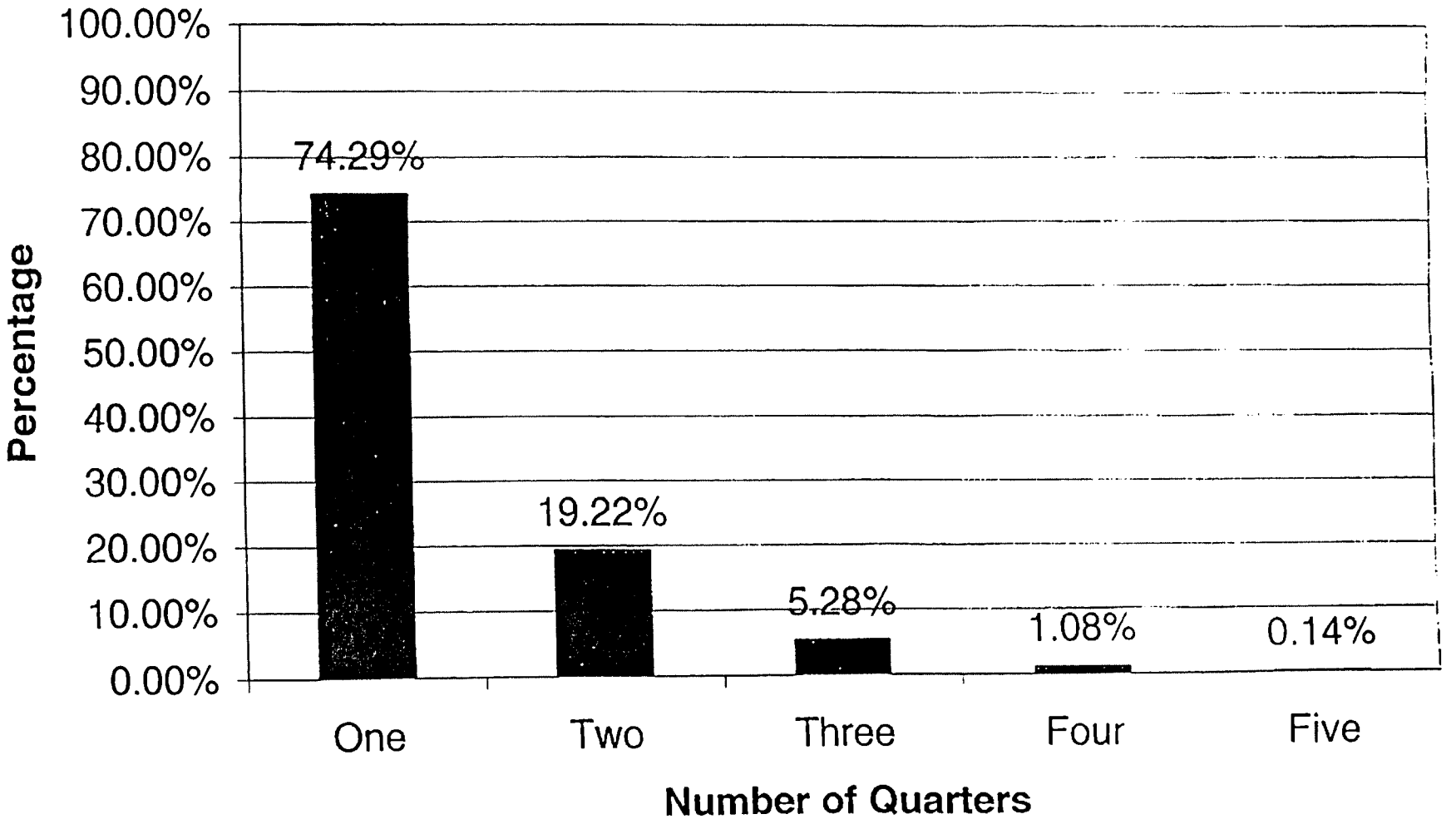


Figure 5. Percent of Students Classified As Returning for One Quarter or More



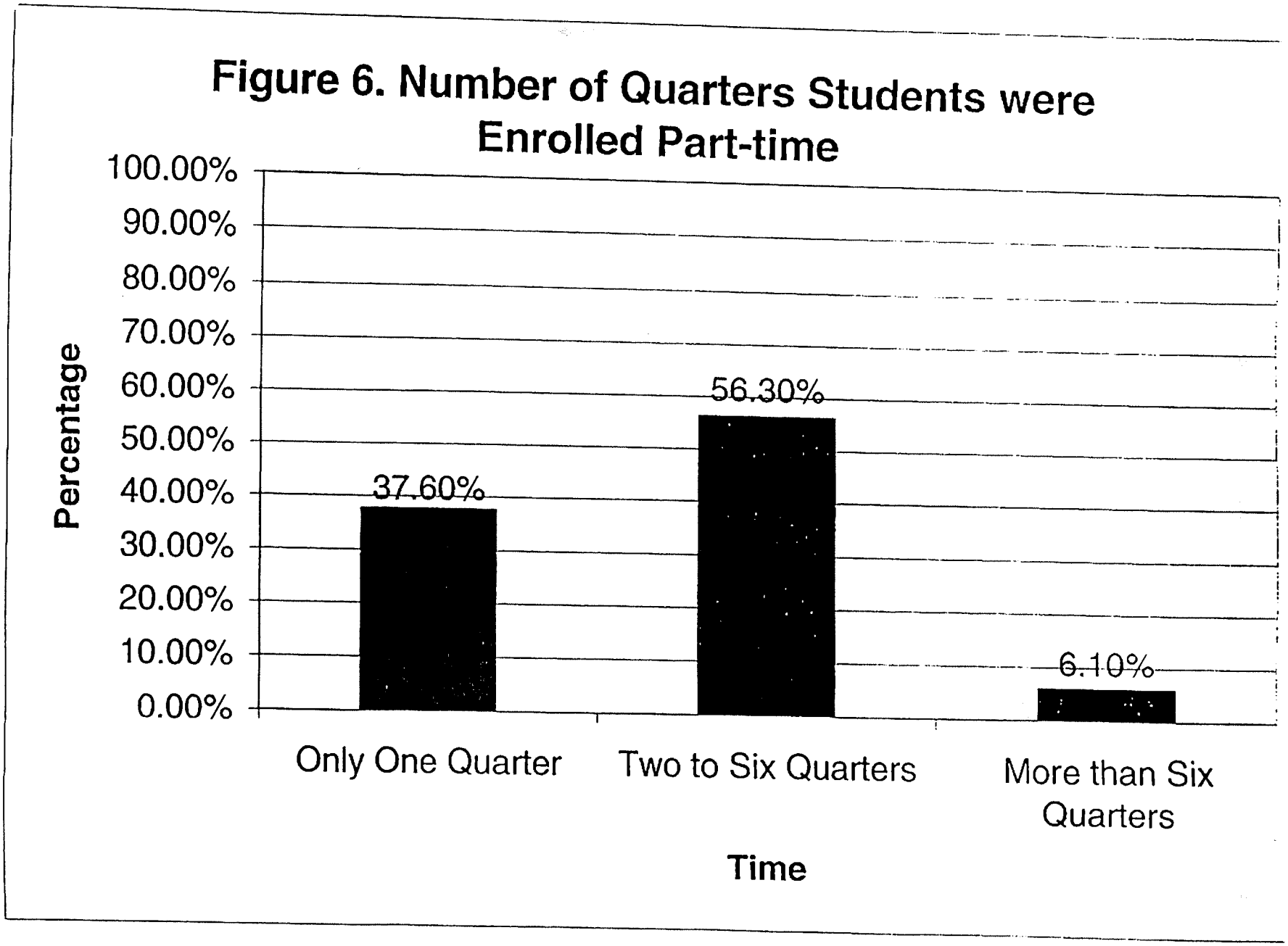
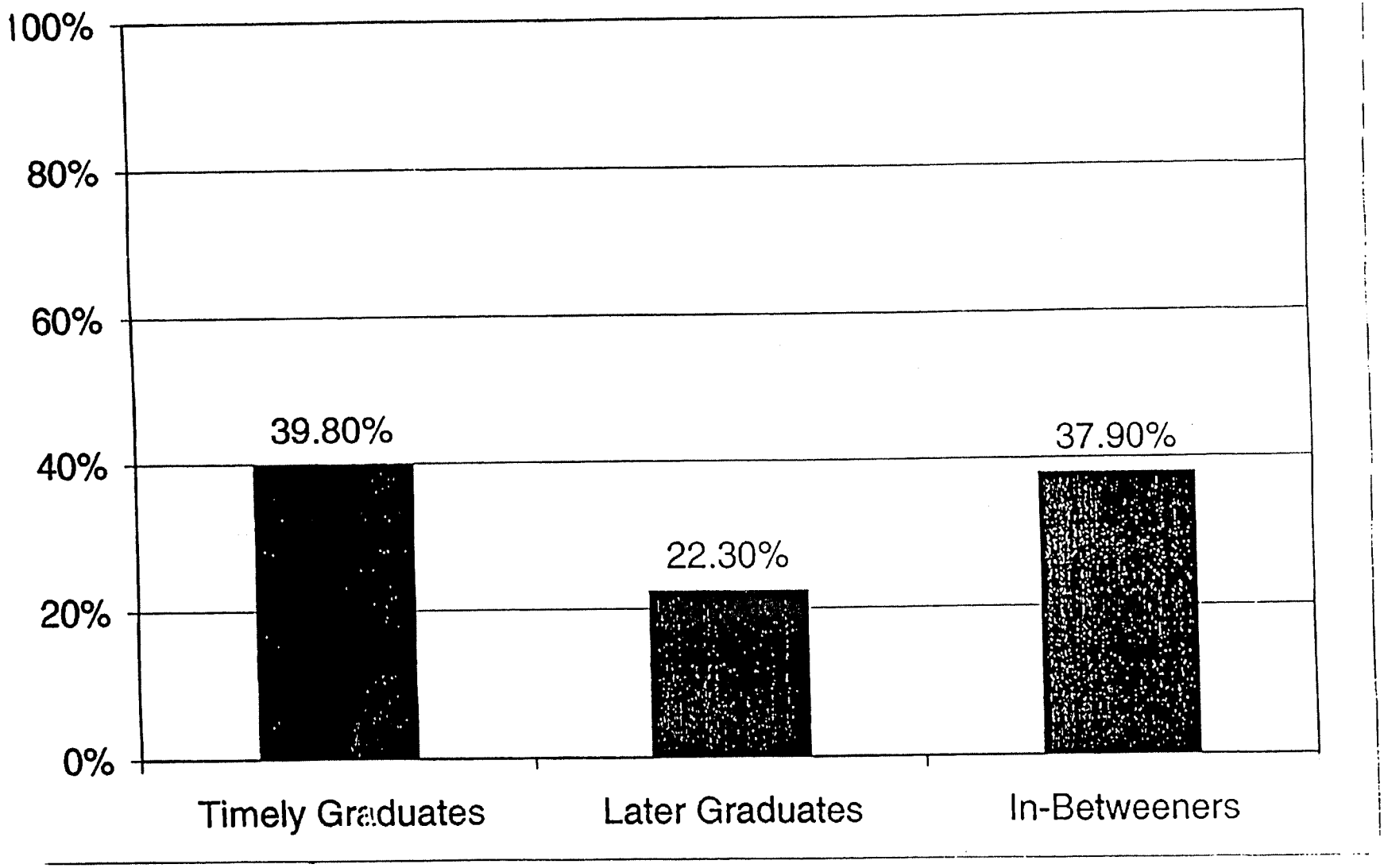


Figure 6. Number of Quarters Students were Enrolled Part-time
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Percentage
37.60%
56.30%
6.10%
Only One Quarter
Two to Six Quarters
More than Six Quarters
Time

Figure 7. Time to Degree for Surveyed Students



Notes from Committee on Instruction meeting with Sherri Noxel, Linda Katunich, March 8, 2000

Two major studies currently available, which will be updated Summer 2000 Data (reported below) do not include transfer students.

Based on backwards data (NFQF once they have graduated), studies found that students finish on the average at the end of the fifth year. Students graduate with 110% of the hours required, reflecting approximately 20 extra hours. Some of these additional hours maybe be due to the fact that hours applied to an earlier field of study did not count when a student switched majors.

Average credit load was 15 hours per quarter. Students need 16.3 credits per quarter to finish in 4 years.

By the time students graduate, 85% will have been employed at some point in time while enrolled, 3.5% above the national average. 31% worked the recommended 11-20 hours per week, but 26.2% worked more than 20 hours per week, which is 3.2% higher than the national average. One third work on campus, which is 20% more than the national average, and two thirds work off campus, often more than 11 miles from campus. Reasons given for working: 40.8% to earn extra money for car or sorority; 21.6% to pay for tuition, books, or fees; 17.8% to pay for living expenses such as rent, bills, family, and kids. The top two reasons match the top two responses nationally.

Double majors does not seem to be much of a factor in time-to-degree. In the College of Humanities, only 7.65% of the students graduated with a double major, although 11.0% of enrolled students report a double major (indicating some do not end of completing both majors).

17% had internships, but this did not seem to be a factor in time-to-degree.

One study completed elsewhere found that drops, withdrawals, and incompletes were the biggest factors in time-to-degree.

Repetition of these studies this Summer will focus especially on change of majors, which was not taken into account with the current studies.

Survey of 1995-96 Baccalaureate Graduates to Identify Factors that Impact Degree Progress

A randomly selected sample of 400 baccalaureate recipients from the graduating class of 1995-96 who started at Ohio State as freshmen was surveyed to determine the major factors that contributed to their degree progress. Students were asked to respond to a series of specific items about their experiences and also about their perceptions of whether these experiences slowed their progress. Students were then given the opportunity to report additional important reasons. This exploratory analysis focused on identifying the factors that distinguished four-year baccalaureate graduates from those who took more than four years. Eighty-seven percent of the graduates were at least somewhat satisfied with their progress.

What are the clear reasons that Ohio State students take more than four years to graduate?

- Students frequently drop and repeat classes, which reduced the amount of credit hours earned each quarter.
- Students enrolled in fewer classes to protect their grade point average.
- Students were employed while they were enrolled and consequently took fewer hours to give themselves more time to earn wages.

What are additional, potential reasons why Ohio State students graduate in more than four years?

- Students frequently reported that stress related issues slowed their progress.
- Students most frequently reported GEC requirements as the most important reason that their progress toward graduation was slowed.
- Students change majors and consequently select their final major field of study as sophomores and juniors.
- Students strongly perceived unavailable classes in their major as contributing to slower progress. However, there was no difference between four-year and more than four-year graduates in whether they were unable to take a GEC or a major class during the quarter that they requested the class.
- Students perceived that ineffective academic counseling slowed their progress.

What factors improve Ohio State student progress toward graduation?

- Personal motivation to get out in four years was the most important factor reported by four-year graduates.
- Tutoring and study skill sessions were found to be significantly associated with time to degree.
- Four-year graduates perceived that taking summer classes, earning credit from other institutions, advanced placement credit and completing a college preparatory curriculum in high school are important factors that helped their progress to graduation.
- Four-year graduates reported that effective academic counseling helped speed up their progress.

What were the unexpected findings in this study?

- Four-year graduates were not significantly more likely to receive financial aid or to perceive that receiving aid helped their progress.
- Participation in extracurricular activities was not a major factor in slowing degree progress.
- Using a curriculum plan was frequently reported as an important factor reported by four year graduates but they were not significantly more likely to use a curriculum plan or to perceive that it impacted their progress.

Counts and Mean Elapsed Time to Degree of Baccalaureate Recipients 97/98 with Double Majors (NFQF Only)

2nd Major College		1st Major College AGR	ASC	BIO	BUS	HUM	JUR	MPS	SBS	SWK	Total
AGR	N	1									1
	Mean El Yrs	4.75									4.75
ART	N								1		1
	Mean El Yrs								5.25		5.25
BIO	N			1							1
	Mean El Yrs			5.75							5.75
BUS	N				115						115
	Mean El Yrs				4.64						4.64
ENG	N		1								1
	Mean El Yrs		8.25								8.25
HUM	N					8	2		7		17
	Mean El Yrs					4.53	4.63		4.29		4.44
MPS	N			1				2	1		4
	Mean El Yrs			3.75				3.63	5.75		4.19
SBS	N			2		18	3		34	1	58
	Mean El Yrs			4.75		4.11	4.08		4.40	9.75	4.40
Total N		1	1	4	115	26	5	2	43	1	198
Mean El Yrs Dbl Majors		4.75	8.25	4.75	4.64	4.24	4.30	3.63	4.43	9.75	4.57
Total Grads		237	41	167	535	340	61	67	830	35	2313
% Dbl Major		0.42%	2.44%	2.40%	21.50%	7.65%	8.20%	2.99%	5.18%	2.86%	8.56%
Mean El Yrs for Coll		4.82	5.86	4.62	4.78	4.88	4.83	4.90	5.00	4 84	4.89

Item 8

Delivered-To: orb-blackwell.4@osu.edu
Date: Wed, 06 Mar 2002 10:25 -0500
From: "Julia Carpenter-Hubin" <JCHubin@smtp.rpia.ohio-state.edu>
To: "blackwell.4@osu.edu" <blackwell.4@osu.edu>
Cc: "BWharton@exchange.ureg.ohio-state.edu" <BWharton@exchange.ureg.ohio-state.edu>
Subject: Fwd:GEC summary

Hi, Marilyn,

Attached below is a paragraph by Barbara Wharton of the Office of the University Registrar that summarizes what we (mostly she) were able to do on the redundancy issue. Feel free to use whatever of it you see fit. Please let me know if there is anything else we can provide for your report.

Julie

Julia W. Carpenter-Hubin
Strategic Initiatives Project Manager
Resource Management Systems & Institutional Analysis
The Ohio State University
phone: 614-292-5915
fax: 614-292-2191
carpenter-hubin.16@osu.edu

<<GEC Research Summary.doc>>

---------- Forwarded with Changes ----------
From: BWharton@exchange.ureg.ohio-state.edu (Barbara I. Wharton) at SMTPLINK-UBP
Date: 02/03/05 5:07PM -0800
*To: carpenter-hubin.16@osu.edu at SMTPLINK-UBP
Subject: GEC summary


GEC Research Summary.doc

GEC Research Summary

Existing survey data from the Student Satisfaction Inventory and the Time to Degree Alumni Surveys indicate that students may perceive the GEC as a minor barrier to earning their degree. Survey responses indicate that current students are strongly dissatisfied with the relevance of the GEC, and that they are somewhat dissatisfied with their understanding of the purpose of the GEC. However, this does not appear to be a major barrier because, although they are dissatisfied, students do not indicate this as an important issue, rating 60% of other issues on the survey as being more important than items regarding the GEC. Additionally, a survey of recent alumni indicates that while "too many GEC requirements" was the top ranked factor for hindering student's progress for 1996 graduates, with 14% of students giving this response, that in 2000 this response ranked fifth with only 5% of students indicating that it was a problem.

In addition to the survey response, student academic records were explored to further analyze the effect of the GEC on time to degree. The purpose of this exploration was to determine whether varying GEC requirements among majors slows students' progress by causing them to earn more than the minimum required number of hours to graduate within their major. To observe this, data was summarized by the number of hours students had earned at graduation, the number of times they had changed majors, and the point at which they entered their final major. From this summary, it did not appear that changing majors was an issue, unless it was done after the senior year, defined by earning135 hours. The excessive hours earned by students making a major change this late is believed to be much more an issue with regard to different requirements within their major, than it is a result of varying GEC requirements. Although an extensive review of actual transcripts with regard to requirements was not conducted, a preliminary review of transcripts of students who had changed majors supports this theory.

Date: Fri, 26 Apr 2002 14:57:12 -0400

Item 9

From: Alice Stewart <stewart.333@osu.edu>
To: Russell M. Pitzer <pitzer@chemistry.ohio-state.edu>
Cc: craft.40@osu.edu
Subject: time-to-degree study

Professor Pitzer,

There are at least three reasons why there is a difference between the number reported by Enrollment Mgmt. and the number in the study provided by this office.

1) The study provided from this office was based on data provided by a sample of students, not the population of students as reported by Enrollment Management. Due to the necessity of providing other information that Marilyn asked for, we used the student survey respondents as our comparison group. While this may sacrifice a small amount of accuracy, it provided other richer information about students behaviors and activities that is not available in the standard student enrollment database. For the purposes of the analysis, "on-time graduation" was defined as 4 years plus 1 quarter....which is the standard set by the Ohio Board of Regents.

2) The number regarding time-to-degree is often calculated in different ways. When the distribution provided to your committee was calculated, it was done by looking at the difference in calendar time....subtracting year graduated from year of entry. If instead, we use quarters as the way of marking time (how many quarters have passed from entry to graduation), the average number of quarters is 18 .....which would take approximately 4.5 years of calendar time to complete. This number is closer to the Enrollment Management number. I do not know which way Enrollment Management calculated their number.

3) One characteristic of the survey respondents is that a higher proportion of them are female than occurs in the university population. Engineering, a major that is predominately male and a major that usually takes 5 years to complete, may be under reported in this sample, thus driving down the average time to degree.

Generally, we have found from examining student data that it is almost impossible to graduate from OSU in 12 quarters [... underlying assumption is that 15 credit hours is a "normal" load (modification May 21, 2002)]. Usually students who are motivated to graduate within 4 years do so by taking a higher number of credit hours in several quarters 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.

I hope this answers your question. If you have any additional questions, please don't hesitate to ask.

Alice

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FRI ... May 3, ...02

A financially independent student laboratory newspaper at the Ohio State University

Four-year plan working for Ohio students

By Allison Bourg
Lantern staff writer

College may not be the best four years of everyone's life.

For students at Ohio State, it might be more like the best five years, according to popular OSU lore.

For OSU students who aren't lucky enough to have priority scheduling — those not in the Honors and Scholars Program or varsity athletes — getting the classes they want, when they want them, can be a serious struggle. Having to wait to enroll in certain classes — including a seemingly high number of entry-level general education curriculum core classes — often translates into having to wait just a little longer for that coveted degree.

Considering many college students change their major at least once, usually further postponing graduation, the idea of getting out into the real world in four years can seem like a lofty goal.

Adrian Curry, a fifth-year senior in criminology, spoke of getting stuck on the waitlist of several popular GECs during his time at OSU.

"When you're far down on a waitlist of up to 100 people, there's no guarantee you'll get in (that quarter)," Curry said, adding that his evening job at Domino's Pizza eliminates the possibility of scheduling night classes.

He admitted that the difficulty of trying to schedule classes both in and out of his major as a non-priority student probably pushed his date of graduation further back, though transferring from Capitol University "probably didn't help either."

Chris Cordray, a graduating senior in international studies, managed to complete his course load within four years, though he admitted he enrolled for summer quarter as a part-time student twice to get some credits out of the way.

He said it was the easiest way to ensure a timely graduation date.

"I'd advise anyone to do it," Cordray said.

But according to University Registrar Brad Myers, the idea that it's all but impossible for students to graduate from OSU in the standard four years is misguided.

"There's a common myth that the university is trying to put up a barrier so that students stay longer and financially support the university," Myers said, "and that's absolutely wrong."

Myers noted that throughout the 1990s, graduation rates of OSU students rose steadily each year. While only 16.3 percent of students entering the university as freshmen in 1990 had graduated by 1994, 29.1 percent of the students who started college in 1997 graduated four years later in 2001 — a 12.8 percent increase over seven years. Myers attributes this improvement to the increasing academic strength of OSU's incoming classes.

Over the last few years, OSU has been moving toward a more selective admissions process, examining prospective students' high school backgrounds more closely and bringing in those who are best prepared for the demands of college course work and have set higher expectations for themselves, Myers said.

"These are stronger students who are more likely to graduate and more likely to be successful," he said. That's had a significant effect upon the retention rates. The numbers are clearly going up."

Other universities in Ohio have seen similar, albeit less drastic, increases in their four-year graduation rates. According to the registrar's most recent statistics at Bowling Green State University, 33.3 percent of BGSU's freshman class of 1997 graduated in four years, as opposed to 29.3 percent of incoming students in the fall of 1991.

Ohio University boasts a relatively high four-year graduation rate. According to OU's Office of the Registrar's most recent figures, 43 percent of students entering the university in 1997 earned their degrees four years later, compared to 41 percent of students starting at OU in 1991. Ruth Van Schoor, assistant to the Registrar, speculated that OU's four-year rate is fairly high because the school is smaller and more focused on individual students.

By comparison, Miami University of Ohio's most recent data on four-year graduation rates — 68.4 percent of students entering college in 1993 graduated by 1997 — is impressive.

Claire Wagner, associate director of news and public information for Miami, agrees with Myers' sentiment that admitting well-prepared high school students into the university has much to do graduating successfully and quickly.

"We're more selective than many colleges, and students come in more ready to succeed," Wagner said. "We also have a good amount of support programs for students who are lagging behind."

She also noted that Miami focuses strongly on undergraduate education and places less emphasis on graduate research than larger public universities such as OSU.

While Myers acknowledged many students don't graduate in exactly four years — 4.6 years is the "ballpark average" for years spent as an undergraduate — taking the extra time isn't necessarily negative.

Students, now more than ever, are taking quarters off to complete internships or co-ops, study abroad or volunteer, activities which may enhance resumes and help to attain greater opportunities in the workforce.

"Students see such experiences as win-win situations, even if they delay graduation," Myers said.

Students' GEC requirements are under scrutiny, however. As part of his Academic Plan, President William "Brit" Kirwan addressed the need for examination of the GEC requirements. To do so, the Undergraduate Curriculum Review Committee was formed last year.

The committee's dual goals are to investigate the time needed to obtain a degree for most undergraduate students and to determine whether the GEC needs revision, said Marilyn Blackwell, a professor of Scandinavian Studies and committee chairwoman.

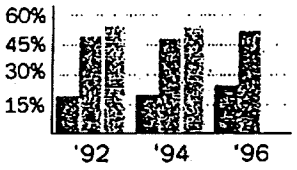
The committee will publish an outline of its recommendations by June, she said.

see PLAN page 8

A four-year degree

For the past few entering classes at Ohio State, completing a degree took a little longer than four years.

GRADUATION RATES



Source: Office of Enrollment Management
ZACH WITTIG/THE LANTERN

PLAN

CONTINUED FROM PAGE 1

"We've met with a great, great many people from student focus groups to faculty members," Blackwell said. "We want to make it easier for students to navigate the GEC."

She said the committee discovered students' major complaint was the difficulty many of them had scheduling their basic core requirements.

Thus, one of the recommendations the committee has is to incorporate more class sections in the late afternoons and evenings, particularly to accommodate non-traditional students and professional students who often work during the day.

The committee also suggests that departments offer certain core sequences — like the commonly scheduled History 151-152 sequence — more than once a year.

"We want to make the GEC requirements more flexible," Blackwell said.

However, Paula Hook, an academic counselor with the Undergraduate Student Academic Services' Exploration division, noted that many GEC courses are movable f... degree unit to degree unit.

She often advises undecided students to select o... es, such as those in the social sciences, that are easily adaptable. By getting such classes out of the way early in the college career, students of all different ranks on the priority scheduling scale stand a decent chance of graduating fairly quickly, she said.

Cordray said doing exactly that helped him immensely.

"I took almost all my GECs early in college," he said. "I eventually switched from business to international studies, but didn't get set back at all because I had already gotten a lot of GECs out of the way."

Myers thinks the university is making an effort for most students to graduate in four years. While he admits that students who are on the lower end of the priority scheduling scale, such as non-honors freshman, may not always get exactly the courses they want when they want them, they can still make academic progress towards a degree.

"What often happens is that students will compromise desired time slots and the specific course they want to take," Myers said. "For instance, they may not be able to enroll in Psychology 100, so they enroll in Sociology 101 instead. It fulfills the same requirement and doesn't set them back at all."

The GEC already allows that kind of flexibility, he added.

Hook said it's completely possible to earn a degree within four years if a student makes wise choices. However, he warns "if you keep changing your mind, it can get tricky."

"Students need to be in consultation with an adviser and develop a relationship with that adviser early on," Hook said. "They need to keep in touch."

From: "William Ralph Childs" <childs.1@osu.edu>
To: <blackwell.4@osu.edu>
Cc: <soland.1@osu.edu>; <rupp.1@osu.edu>; <hogan.5@osu.edu>; <garland.1@osu.edu>
Sent: Friday, May 18, 2001 11:14AM
Subject: gec articles

Dear Marilyn

As a fellow member of the College of Humanities and as one of the committee members who looked at the GEC in 1995, I am simultaneously encouraged and dismayed by the information in the recent articles on the work of your committee

1. I am encouraged that you and President Kirwan are emphasizing the need for breadth. OSU must insist on teaching students how to be life-long learners.

2. On the other hand, and with all due respect, Ed Ray has it wrong: The programs across the country that require 180 hours to graduate operate on a basic FOUR HOURS PER COURSE scheme, while OSU has a basic FIVE HOURS PER COURSE scheme.

For example, and since everyone mentions that UCLA is still on quarters, I double-checked their requirements today and they require 180 hours; BUT they operate on a basic 4 hours per course. Some courses are 6 hours (in the sciences), but the vast majority are 4 hours.

Your committee should be discussing the NUMBER OF COURSES required to graduate, rather than hours. If you do that, and compare with other benchmark universities, you will discover that the current number of courses required at OSU (minus the 1 hour freshman course) is 38 (190 divided by 5) and that is LOWER than most benchmark universities.

The university of Texas at Austin, for example, which is on semesters, requires 120 hours, with a 3-hour basis for most courses; that comes to 40 courses.

Northwestern requires 45 courses (quarter system) and it has a very high 4-year graduation rate (perhaps because it costs so much?!). See this web site: http://www.cas.northwestern.edu/ug/degsum.html

3. I was disappointed in 1995 that the committee could not reduce the complexity on the GEC program sheet. Part of that can be explained by the fact that everyone wants a piece of the action; additionally, developing a program of breadth and depth is complicated! I wish your committee luck in making the system clearer, but looking at other programs a few years ago, I am not sanguine. I had difficulty deciphering the UT-Austin program, for example, and I graduated from there in 1973!

4. Since 1995, I have changed my views somewhat. I would be willing to reduce the number of required GEC courses (indeed, we did that in 1995 AND helped several ASC departments further by allowing a drop-a-GEC option for them - these 5 or 6 departments had a significant Major course load), BUT I would insist that we add a REQUIRED MINOR of a least four courses and preferably five courses. This would serve the necessity for breadth but enable the student to concentrate on another area in some depth.

Feel free to trash this communication or share it with whomever!

Bill Childs

(retyped for improved legibility. S. Krumm, 5-30-02)