



EXECUTIVE VICE PRESIDENT AND PROVOST

TO: University Community

FROM: Barbara R. Snyder
Executive Vice President and Provost

A handwritten signature in black ink that reads "Barbara R. Snyder".

DATE: November 7, 2005

In Autumn 2004, I established a Committee for the University-wide Review of Undergraduate Education, chaired by Professor Brian McHale, Department of English, and Distinguished Professor of Humanities. The Committee, broadly representative of the academic areas heavily involved in undergraduate education, was charged to give special attention to the General Education Curriculum (GEC), the number of credit hours required for graduation, and how well our undergraduate programs reflect our commitments to diversity, interdisciplinarity, research, and outreach.

Over the past ten months, the Committee has worked rigorously on that charge, with input from across campus. Its final report is now available for review.

The Committee makes bold recommendations with regard to credit hours for graduation, changes in the current structure of the GEC, and a new initiative – freshman clusters. Of particular importance is that the recommendations are guided by four main principles: coherence, flexibility, oversight, and transparency.

I ask the University community now to review this Report and provide me with reactions by **March 15, 2006**. Professor McHale, and members of the Committee, will be available to discuss the Report and its recommendations. He can be contacted directly (mchale.11@osu.edu) to schedule meetings.

I will provide that input to the Council on Academic Affairs at the beginning of Spring Quarter 2006, and ask that its formal reactions to the recommendations be sent to the University Senate for action there by Autumn 2006.

I express my deep appreciation to Professor McHale and the members of the Committee for their outstanding work on this important topic.

**REPORT OF THE COMMITTEE
ON THE UNIVERSITY-WIDE REVIEW OF UNDERGRADUATE EDUCATION
OCTOBER 2005**

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TABLE OF CONTENTS.....	page
Executive Summary.....	i-iv
Glossary of Terms.....	v
1. INTRODUCTION.....	1
1.1 The Charge.....	1
1.2 History of the GEC at OSU.....	2
1.3 Narrative of the Current Process.....	3
1.4 Objectives of the General Education Curriculum.....	4
1.5 Shortcomings of the Current GEC.....	5
1.6 Guiding Principles of GEC Reform.....	6
2. NOTE ON STRUCTURAL PROBLEMS.....	6
2.1 Resources and the University Budgeting System.....	7
2.2 Quarters vs. Semesters.....	8
2.3 Credit Hours.....	8
2.4 Staffing of Undergraduate Courses.....	8
3. THE PROPOSED UNDERGRADUATE CURRICULUM... ..	9
3.1 The Major.....	10
3.2 NMRs for Graduation.....	11
3.3 Electives.....	11
4. NON-MAJOR REQUIREMENTS.....	12
4.1 Introduction.....	12
4.2 Demonstrated Skills.....	14
4.3 Demonstrated Cultural Competencies.....	16
4.4 Demonstrated Breadth of Knowledge.....	20
4.5 Capstone Experience.....	25
5. FRESHMAN CLUSTERS.....	26
5.1 Overview.....	26
5.2 Implementation.....	27
5.3 Senior Clusters.....	29
6. INCREASING FLEXIBILITY AND STUDENT CHOICE.....	29
6.1 Overview.....	29
6.2 Exemptions.....	29
6.3 Substitution.....	30

6.4	Minors.....	32
7.	OVERALL RESULT: REDUCTION IN SIZE OF THE NON-MAJOR CURRICULUM.....	33
7.1	Summary.....	33
7.2	Proposed Reduction in NMRs.....	33
7.3	Further Reduction in NMRs with Freshman Cluster.....	34
7.4	Flexibility and Student Choice Aid Students in Completing NMRs and Enhance Coherence.....	34
7.5	Foreign Language Requirement Determined by Colleges.....	36
8.	OVERSIGHT.....	37
8.1	General Education Oversight.....	37
8.2	ASCCI Sub-Committee on Assessment.	38
8.3	Information Collection.....	39
9.	TRANSPARENCY AND COMMUNICATION.....	40
	APPENDICES.....	A1
Appendix 1:	Undergraduate Student Government Survey of Student Attitudes toward the GEC.....	A1
Appendix 2:	Groups Interviewed during Opinion Polling Phase of the Curricular Review Process.....	A2

EXECUTIVE SUMMARY

When delivering to the Committee on the University-Wide Review of Undergraduate Education its charge in December 2004, Provost Barbara R. Snyder posed two overarching questions that were to guide all the Committee's deliberations: First, *what body of knowledge should all of our undergraduate students be expected to master prior to graduation?* And secondly, *how can The Ohio State University (OSU) best prepare undergraduate students in all of its colleges for a lifetime of learning and citizenship?* Our answers to these questions are articulated throughout the report that follows.

In addition, the Provost charged the Committee to consider five specific aspects of undergraduate education in the light of the overarching questions she posed. Our findings with respect to three of these aspects can be briefly stated; the other two require a more fully elaborated statement.

(i) The number of credit hours required for graduation The finding of the Committee is that undergraduate education at OSU would benefit from a reduction of the minimum credit-hours required for graduation from the current 191 credit-hours to 180. Entailed by this reduction is a reduction of general education requirements, called in this report Non-Major Requirements (NMRs), from 85 to 60 credit-hours for BA students, and from 85 to 65 for BS students (see sections 4 and 7 below).

(ii) The appropriate role of Freshman Seminars The Committee's finding is that the present Freshman Seminar program should be continued, extended and integrated more fully into the undergraduate curriculum. Fuller integration can be achieved by allowing students to count a Freshman Seminar towards their Non-Major Requirements (NMRs), and by increasing the credit hour value of a Freshman Seminar from 1 to at least 3 credit hours (see section 6 below). Further enhancement and integration of the freshman curriculum can be achieved through the Freshman Cluster program, which this report envisions as the centerpiece of undergraduate general education at OSU (see section 5 below).

(iii) The staffing of undergraduate courses Having reviewed the data on staffing of undergraduate courses, the Committee finds that, with some exceptions, undergraduate students do have direct and widespread access to regular full-time faculty once they are enrolled in courses in the major programs, and that there is little variation among colleges in this respect. In the case of general education courses, however, the pattern is more complex. General education courses, which are typically offered at the 100-300 level, are taught by a mix of regular full-time faculty, graduate teaching associates (GTA), and others. There is considerable variation in that mix among colleges, with some high levels of GTA and/or part-time instructors, not only in introductory-level courses, but also in some cases in upper-level General Education Curriculum (GEC) courses – especially the capstone 597 courses. The Committee believes that the staffing of general education courses is in some cases cause for concern, and needs to be addressed (see section 2 below).

(iv) **The General Education Curriculum** and (v) **The degree to which undergraduate education reflects university priorities such as diversity, research, interdisciplinarity, and outreach** Our findings with the respect to these two items of the charge call for a more fully articulated statement of our proposals for a reformed and revitalized General Education Curriculum at OSU.

Through a process of consultation with constituencies across the University, supplemented by our own fact-finding activities, we arrived at the conclusion that the General Education Curriculum (GEC) as currently constituted at OSU is failing to fulfill the role envisioned for it when it was first implemented in the early 1990s, in the wake of the Reagan and Babcock Committee reports. The GEC was designed for a less well-prepared student body than we currently find at OSU, and this, coupled with a certain amount of curricular drift over time, has meant that the current GEC is somewhat out of step with the present institution. We find that it involves too many credit hours, taking up too large a proportion of students' curriculum. Moreover, it is too difficult to navigate, and too inflexible, despite the appearance of pseudo-flexibility presented by the almost 900 GEC courses on offer. It encourages the piecemeal satisfying of a menu of requirements, and presents obstacles to constructing an integrated, coherent educational experience. Its goals and structure are not widely understood among faculty, let alone among students.

From our investigation of the current GEC there emerged four guiding principles that, in our view, ought to guide the reform of general education at OSU. These four principles are: **coherence, flexibility, oversight, and transparency**. General education ought to be integrated to a degree that it currently is not; it ought to be flexible, offering much wider scope for students to shape their educational experience to meet individual needs and interests; its delivery ought to be monitored more closely than is currently the case, and tendencies toward curricular drift ought to be corrected; and its goals and structure ought to be easier to grasp, easier to navigate, and more widely understood. Each of these principles is reflected in one or more of our proposals for a renovated General Education Curriculum.

- **Coherence** The center-piece of our proposals for enhancing coherence, as well as flexibility, in the undergraduate curriculum is the Freshman Cluster program. Inspired by a successful program at the University of California, Los Angeles (UCLA), Freshman Clusters are integrated, interdisciplinary, team-taught three-quarter course sequences, each focused on a unifying theme of broad interest, e.g., "the global environment," "the democratic experience," "mathematical order of the natural world," "citizenship and ethnicity in the US," "the immigrant experience". By taking a Freshman Cluster, a student would fulfill 40 percent of NMRs in the first year (see section 5 below). Minors are another valuable means of enhancing the coherence of the undergraduate curriculum; they contribute to the integration of coursework that might otherwise be experienced as piecemeal, and are encouraged in these proposals.

- **Flexibility** Apart from the Freshman Cluster program, we are proposing a number of other measures to enhance flexibility and widen the scope of student choice in the undergraduate curriculum. These include: empowering each major program to exempt its students from one NMR that is nearest to it in disciplinary orientation or content, in the interests of avoiding unnecessary overlap between general education objectives and majors; allowing students to substitute one of a variety of alternatives (an upper-level course, an internship, an independent research experience, an outreach experience) for a course in one of the foundational disciplinary categories (here called Breadth of Knowledge courses); allowing Freshman Seminars to satisfy NMRs; and allowing minors and double majors to count toward satisfying NMRs (see section 6 below).

- **Oversight** The principle of oversight in our report is coupled with a principle of responsibility: units offering courses that satisfy NMRs have a responsibility to maintain the quality of these courses and to ensure that they achieve their goals. Our proposals for enhancing oversight of undergraduate general education include: establishing a university-wide Oversight Committee, reporting directly to the Council on Academic Affairs (CAA), and entrusted with monitoring the quality of courses that satisfy NMRs; instituting a “rolling review” of NMR courses, with one category of courses being reviewed each year; and upgrading the current Writing Across the Curriculum (WAC) program to a WAC Office empowered to oversee delivery of first- and second-level non-major writing courses, as well as a third writing experience, to be implemented in all majors (see section 8 below).

- **Transparency** To ensure that the goals and structure of non-major undergraduate education are widely communicated and understood, we are proposing a number of measures whose implementation the Oversight Committee would monitor (see section 9 below). We are also proposing to reorganize the current category structure of the general education curriculum in ways that should make it easier to grasp and navigate.

A Restructured General Education Curriculum While we see no compelling reason to radically reconfigure the present category structure of General Education, we do think that some regrouping of the categories would enhance transparency and navigability, as well as incorporating a number of other desirable curricular changes. Our proposals are summed up as follows (with the number of credit-hours to be satisfied in each category indicated):

Non-Major Requirements (NMRs)

Demonstrated Skills

- Written, Oral and Visual Expression (WOVE) *10 credit-hours; can be fulfilled by a Freshman Cluster*
- Quantitative and Logical Reasoning *9-10 credit-hours*

Demonstrated Cultural Competencies *may be double-counted*

- Moral Reasoning
- Foreign Cultures
- Social Diversity in the US

Demonstrated Breadth of Knowledge

- Natural Science *BA, 15 credit-hours with lab; BS, 20 credit-hours with lab*
- Social Science *10 credit-hours*
- Historical Study *10 credit-hours*
- Arts and Literature *10 credit-hours*
- Capstone Experience *may be double-counted*

We also propose introducing a number of other curricular changes, the most notable of which are itemized below (see section 4 for details):

- A third required WOVE (writing) experience, to be delivered in the major.
- A new Moral Reasoning category.
- Advanced foreign language study encouraged by allowing foreign language proficiency, advanced course-work and/or study abroad to satisfy Foreign Cultures and Social Diversity requirements, and by encouraging foreign language minors.
- Foreign language proficiency to be determined by colleges.
- No sequence requirement in Historical Study.
- Historical Study to include historically-oriented courses in various disciplines.
- Abolition of current Cultures and Ideas sub-category, its courses to find “homes” under other categories.
- Flexibility in satisfying Capstone Experience requirement.

In light of the flexibility of the restructured general education curriculum, the Committee recommends that there be a single undergraduate curriculum across the University instead of a patchwork of curricula, varying from college to college, as is currently the case. All of these proposed curricular changes, together with the reforms indicated above under the four headings of coherence, flexibility, oversight and transparency, will, we believe, enhance undergraduate education at OSU in manifold ways, and bring the undergraduate curriculum more in line with the needs and expectations of the present student body, and with the University as we find it today and as we expect it to develop in future.

These proposals are far-reaching, and some of them will require a significant reallocation of resources and a substantial investment of time and energy on the part of faculty and administrators. We are acutely aware of this, and of the various structural constraints that must be confronted in implementing the proposals outlined here (see section 2 below). Nevertheless, we believe the revitalization of undergraduate education that we envisage amply justifies any short-term dislocations or longer-term, systemic adjustments that our proposals may entail.

KEY TO ACRONYMS

ASC	Colleges of the Arts and Sciences
ASCCI	Art and Sciences Committee on Curriculum and Instruction
CAA	Council on Academic Affairs
FAES	College of Food, Agricultural and Environmental Sciences
GEC	General Education Curriculum
GTA	Graduate Teaching Associate
NCACS	North Central Association of Colleges and Schools
NMR	Non-Major Requirements
OAA	Office of Academic Affairs
OSU	The Ohio State University
QLR	Quantitative and Logical Reasoning
RBB	Responsibility Based Budgeting
UCLA	University of California, Los Angeles
USG	Undergraduate Student Government
WAC	Writing Across the Curriculum
WOVE	Written, Oral and Visual Expression

1. INTRODUCTION

1.1 The Charge

The Committee on the University-Wide Review of Undergraduate Education was organized during autumn quarter 2004 at the request of The Ohio State University's (OSU) Provost, Barbara R. Snyder. The Committee comprises six faculty members from Colleges of the Arts and Sciences (ASC), one each from Business, Engineering, and Food, Agricultural and Environmental Sciences (FAES), a representative of the Undergraduate Student Government (USG), and two liaisons with the Office of Academic Affairs (OAA), serving in an *ex-officio* capacity. The Provost delivered her charge to the Committee on December 7, 2004.

In 2007, OSU will seek re-accreditation by the North Central Association of Colleges and Schools (NCACS). The University administration views this pending assessment of the University's standing as an appropriate time to review and re-shape the undergraduate curriculum with a specific focus on the General Education Curriculum (GEC) and today's student population, which differs markedly from the one that the current GEC was designed to serve.

Provost Snyder posed two overarching questions for the Committee to consider:

- What body of knowledge should all of our undergraduate students be expected to master prior to graduation?
- How can OSU best prepare undergraduate students in all of its colleges for a lifetime of learning and citizenship?

In addition, the Provost identified five specific aspects of undergraduate education to which the Committee was to give particular attention. These were:

- The GEC
- The number of credit hours required for graduation
- The appropriate role of Freshman Seminars
- The staffing of undergraduate courses, and faculty-student interaction
- The degree to which undergraduate education reflects university priorities such as diversity, research, interdisciplinarity, and outreach.

The Committee was asked to complete its task and submit a written report to the Provost by autumn 2005.

The Committee understood its charge to bear largely, though not exclusively on the GEC that constitutes the shared core of undergraduate education at OSU. Accordingly, though the Committee's report does reflect on the place of the major in undergraduate education (see section 3 below), and though a number of its proposals impact major programs in various ways, the bulk of the report addresses the GEC.

1.2 History of the GEC at OSU

The current GEC at OSU was designed and implemented through a process that spanned nearly a decade. Initiated by President Edward Jennings in 1985, a review of the undergraduate curriculum was undertaken by the Special Committee for Undergraduate Curriculum Review, which delivered its interim report in 1987. The underlying goal of this review was to articulate a body of knowledge in the liberal arts that all undergraduate students ought to master if they are to be educated people, informed citizens, and lifelong learners. Proposals for implementing the general principles articulated by the Special Committee report were developed by the Special Committee for Undergraduate Curriculum Review in the Colleges of the Arts and Sciences the following year. Measures for reconfiguring undergraduate education in line with these recommendations were implemented over the course of the next several years.

The categories of courses constituting the GEC that emerged from this process are:

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

The actual number of hours currently taken in GEC courses varies widely depending on the major field and the substitutions or double-counting approved by the departments and/or colleges in which these degree programs are housed. The minimum number of credit-hours required for graduation from OSU is currently 191.¹

A review of the GEC was undertaken in 1996. Although this review mainly involved fine-tuning of the GEC, two important findings were reported:

- Students were required to take a capstone class, but too few of these were available, so students were petitioning not to take them.
Many science majors have extensive prerequisites, so students in some programs were allowed to petition to drop a GEC class in order to take a prerequisite for their major.

In 2001, another committee was formed to study the undergraduate curriculum at OSU. This Undergraduate Curriculum Review Committee engaged in a two-year review that resulted in an assessment report and recommendations that were submitted in March 2003. It was noted that GEC requirements vary according to students' degree programs

¹ The only exception to this is the College of Social Work, which has required a minimum of 180 hours since the establishment of the GEC.

and the colleges in which these are housed. While this system was complex, comparisons to benchmark institutions suggested such complexity might be inherent to large research universities.

Although the current GEC has been conceptualized for twenty years and fully implemented for fifteen, there has been no comprehensive follow-up work to see if the curriculum is achieving its goals. Moreover, the GEC has been a source of tension between ASC and other colleges with undergraduate programs, notably with respect to the current GEC review and approval process and input to periodic review of the GEC.

1.3 Narrative of the Current Process

The present Committee met weekly from January to June 2005, and biweekly from July through September. Final preparation of the Committee's report occurred over a two-month period and the completed document was ready for submission to the Provost by mid-October 2005.

The Committee operated under the premise that the undergraduate student population at OSU is entering with steadily increasing ACT/SAT scores and with higher class rankings than their predecessors. Moreover, some 44 percent of the faculty have been appointed in the past ten years, and bring with them a diverse experience of undergraduate education. Finally, the world in which the current GEC was designed more than fifteen years ago is markedly different from the one in which we find ourselves today, and even more so from the future which we are preparing our students to meet. All these factors suggest that the time is ripe for a reexamination of General Education at OSU.

To gain a clearer understanding of the current GEC and what sorts of reforms might enable it to meet the needs of today's students more fully, Committee members sought the opinions of students, faculty, deans, and academic advisors on current issues of undergraduate education, including strengths and shortcomings of the GEC. The current GEC was reviewed in the context of benchmark institutions and other universities identified as having reputations for strong general education curricula. Recent undergraduate curriculum reform initiatives at a number of institutions of different types were examined. Written reports from previous OSU General Education review committees were consulted, as well as reports and web-sites of comparable institutions.

The USG representative on the Committee helped devise a survey of current undergraduate student attitudes toward the GEC. This survey was conducted online in the winter and spring quarters of 2005 (see Appendix 1). Numerous conversations were held across campus with honor student groups, students in selected GEC courses, student advisors, college faculties, the ASC Faculty Senate Committee, associate deans for curriculum, and other stake-holders (see Appendix 2).

Among groups and individuals who were invited to make presentations to the Committee were: Professor Harvey Graff (Ohio Eminent Scholar in English and History) and members of his Literacy Studies Working Group; William Shkurti, Senior Vice President

for Business and Finance and Chief Financial Officer, regarding the current budget model; Alexis Collier, Associate Professor of Psychology, Chair of the ASCCI Assessment Sub-Committee; and, Min Zhou, Professor of Sociology, University of California, Los Angeles (UCLA), a visitor who shared with the Committee her experience of teaching in UCLA's recently-implemented Freshman Cluster program.

A teleconference was arranged with administrators at UCLA who were involved in implementing and overseeing the new general education program there, including their innovative freshman cluster courses. The Committee has adapted elements of the UCLA model in its proposals for Freshman Clusters (see section 5 below).

The Committee devoted considerable attention to structural constraints and "outside" pressures that might impact the implementation of GEC reforms. The most significant of these structural constraints are discussed in section 2 below. Two other issues at the State level that could affect the implementation of the Committee's recommendations are: the movement on the part of the Ohio Department of Education to redefine what students in the State of Ohio should know by the time they graduate from high school, which could impact what OSU offers as introductory courses; and the ongoing effort to make it easier for students to transfer among institutions of the Ohio higher-education system, without having to repeat courses.

The Committee has understood its charge to cover the development of proposals for reforming undergraduate education at OSU, but not to extend to the development of plans for implementing those proposals. In any case, its nine-month time-frame would have precluded development of implementation plans. Though there are indications throughout this report of how implementation might proceed, it is the Committee's expectation that implementation of its proposals will become the responsibility of a successor committee.

1.4 Objectives of General Education

The Committee continues to affirm the broad objectives of general education at OSU as articulated in the Interim Report of the Special Committee for Undergraduate Curriculum Review (1987) and reiterated in subsequent reports. As the Interim Report stated, and we reaffirm, ensuring a general education necessitates a well-structured curriculum that encourages, develops and strengthens a student's abilities:

- to write and speak with clarity and precision, and to read and listen critically and with comprehension;
- to engage in careful logical thinking and critical analysis, including the abilities that permit intelligent responses to problems and arguments which involve quantitative data;
- to understand and appreciate the important modes of human thought and inquiry;
to understand the methods of modern science and social science, and the effect of science and technology on the natural and social environment;

- to develop a refined historical, artistic and literary consciousness;
- to develop and sharpen the capacity and confidence to make informed and discriminating ethical and aesthetic judgments;
- to understand American institutions and the pluralistic nature of American society;
- to understand the global interdependence of the modern world;
- to acquire facility with a language other than English;
- to develop a deep appreciation for the cultural traditions that have formed and informed our nation, and a sense of the place of other cultures in world history

The category structure of the current GEC (see above) reflects this set of objectives. The Committee's report does not envisage any root-and-branch reform of the current category structure, though we do propose some regrouping of the categories, and a somewhat different mapping of objectives onto categories (see section 4 below).

1.5 Shortcomings of the Current GEC

The numerous interviews with various university constituencies, supplemented by data collected by other means, yielded a picture of the strengths and weaknesses of the current GEC. A number of significant shortcomings were identified:

- **Size** The minimum number of credit hours required for graduation (currently 191) seems excessive relative to peer institutions, and contributes to our students' difficulty in graduating in four years. The size of the GEC (currently about 85 credit-hours) may be a factor, but so is the increasing size of many majors.
- **Complexity** The structure of the GEC is too hard to grasp and its requirements are unnecessarily difficult to navigate. Its purposes and goals are unclear, and it is usually experienced by students as a puzzle or checklist, not an integrated educational experience.
- **Inflexibility** Despite the appearance of flexibility presented by the approximately 800 GEC courses on offer, the current GEC actually provides only limited opportunities for students with specific interests outside their majors to "customize" their education. Substitution of alternative courses or other educational experiences is difficult.
- **Communication** Though the general goal of "breadth" is affirmed by students and faculty alike, the specific goals and objectives of general education have not been successfully communicated and are not widely known. Instructors need to understand how their courses fit into the general education, and students need a better grasp of how the general education program works if it is to accomplish its purpose of preparing them for lifelong learning.
- **Coherence** The "menu" approach to satisfying general education requirements results in a piecemeal curriculum. Integration among courses is often lacking. Requirements do not build on each other toward a larger whole.
- **Advising** Grasping the GEC requirements and navigating a path through them is challenging, and success depends on closer consultation with knowledgeable advisors than is sometimes possible at present. Undergraduates feel that they do

not get the advice they need, in part because of a high turnover rate among advisors.

- **Quality** Anecdotal evidence suggests that GEC courses vary widely in quality, and that some of them are over-crowded, mediocre in conception and poorly delivered. Unfortunately, anecdotal evidence is all we have to rely on, in the absence of systematic assessment.

1.6 Guiding Principles of GEC Reform

From the Committee's investigation of the shortcomings of the current GEC there emerged four principles that underwrite and animate the reform proposals that follow. These guiding principles are:

Coherence/integration The current "menu" system yields a loosely integrated general education experience. The General Education Curriculum ought to be integrated in ways and to a degree that it currently is not. Course clusters, minors, and other forms of "prepackaging" should be encouraged in the interest of bringing a higher degree of coherence and integration to students' curricular choices.

Flexibility/student choice Despite the appearance of choice, the current GEC is too inflexible to meet the diverse educational goals and intellectual curiosities of today's students. The curriculum should be sufficiently flexible to accommodate a broad range of student needs and interests. Such flexibility should provide opportunities for students to move beyond disciplinary boundaries. Students should have the option of satisfying general education requirements in a variety of ways, from traditional coursework to alternatives such as independent research, internships, and outreach experiences.

Oversight/responsibility While GEC courses are carefully vetted during the approval process, once they are approved there has been no further oversight to monitor quality, to keep courses current, to ensure that goals and objectives of the GEC are appropriately communicated, and to correct for any curricular drift. The principle of oversight is coupled with a principle of responsibility: units offering courses that satisfy GEC requirements have a responsibility to maintain the quality of these courses and to ensure that they achieve their goals. The GEC should include an assessment plan to provide sound data on which to base future decisions about the curriculum.

Transparency/communication The general education curriculum should be transparent in its design and purpose for undergraduate students, instructors and advisors. The GEC should be easy to navigate. Its goals and objectives should be widely communicated and generally known throughout the campus community.

2. NOTE ON STRUCTURAL PROBLEMS

The Committee would like to note several structural problems that may constrain the University's ability to consider and implement meaningful reform of the undergraduate curriculum. These structural problems include: resources and the University's system of

budgeting, the issue of quarters vs. semesters, credit hour differences and similarities across campus, and the staffing of GEC courses. Although the Committee was not charged to focus on all of these issues, it has become very clear throughout its discussions that to a greater or lesser degree, these structural problems are an important part of the environment in which the undergraduate curriculum and the GEC in particular, operates. While we do not offer any highly specific recommendations to the University on how to address these issues, it is important to understand how they impact curricular reform, and we strongly encourage the University to consider them when implementing any changes to the curriculum.

2.1 Resources and the University Budgeting System

While the Committee was not charged with resolving resource and budgetary issues, these have come up repeatedly in our discussions of curricular reform. In particular, the Committee would like to comment on both the level of resources committed by the University to undergraduate education, and also the means to allocate these resources. Two underlying themes of our recommendations for curricular reform concern the need to improve both quality and flexibility of the GEC, neither of which can be properly implemented without attention to existing resource and budgetary constraints. The Committee recommends that the University focus on three interdependent issues:

- Improving the quality of undergraduate education at the University will inevitably require some new allocation or reallocation of resources. This reallocation might occur within units, reflecting a revaluing of general education, or it might involve the allocation of new resources by central administration. Either way, continuous review of the curriculum, oversight boards, recruitment and allocation of high-quality teaching faculty and so on, are all expensive in terms of financial and human resources. Nevertheless, the Committee affirms that a strong undergraduate education is a worthy goal for the University to pursue, and that reallocation of resources is an appropriate means to address some of the existing structural problems of general education. We strongly encourage the University to consider reallocating resources to improve the quality and flexibility of its undergraduate education.
- Improving both the quality and flexibility of the undergraduate curriculum also requires the University to think much more creatively about how to allocate a given level of resources to teaching. The Committee believes it would be worthwhile for the University to consider how to harness the current budgeting system to effect some real changes in the undergraduate curriculum. The University already has in place a set of “internal prices” it pays departments to supply various courses. The University ought to consider how to set up a system of “quality-adjusted pricing” in its allocation of resources to teaching. Such a system should be designed to improve both the flexibility and quality of course offerings, and also to offer rewards to the entrepreneurial efforts of departments. In particular, the allocation of teaching resources ought to be designed to provide incentives for departments to offer “high price” classes (including smaller class-

sizes and/or classes taught by faculty) and to reduce the current incentive for departments to offer large-size, homogeneous classes. We would suggest that the pilot Freshman Cluster program discussed later in this document is one place where the University might wish to experiment with such a system. Other programs where incentives might be used in this way include freshman seminars, honors courses, and 597 courses.

- The Committee is aware that the Freshman Cluster program (see section 5 below) and also the expanded Freshman Seminar program (see section 6.3) advocated by this report are likely to introduce substantial fluctuations in units' budgets from year to year. This fluctuation will require adjustments to the current budgeting model.

2.2 Quarters vs. Semesters

Although this issue was never placed explicitly in the Committee's terms of reference, and was never discussed in any detail during the Committee's business, it is very obvious that the quarter system places certain binding constraints on the University's ability to increase flexibility in the undergraduate curriculum and reduce the number of hours to graduation. In particular, the Committee notes that some of the course sequence requirements in the current GEC are likely driven by the quarter system. For example, the argument for sequences might be less compelling if courses were offered on a 15-week semester basis instead of a 10-week quarter. **We do not enter here into the discussion of the efficacy of semesters versus quarters, and our recommendations for changes to the undergraduate curriculum are made in light of the calendar currently in place.** Nevertheless, we are confident that our proposals could readily be retrofitted to accommodate a semester system if and when the University opted to shift to semesters.

2.3 Credit Hours

In the context of discussing concerns about the size of the GEC and the overall graduation requirements, the Committee recognizes that the budget gives incentives to err on the side of more credit hours per course. These incentives derive ultimately from the State of Ohio, which keys support to credit-hours, without explicitly defining the credit-hour as a unit. Consequently, most GEC courses currently carry a five-credit hour designation. The University's guiding principle is that credit hours, multiplied by three, should be an indication of the workload (hours per week) required by a student to receive an average grade, i.e., C. From both faculty and student input, there was a sense that serious disparities exist across campus in the appropriateness of some credit hour designations. We suggest that, in the context of overall monitoring of the GEC, a thorough review of existing credit-hour designations should be conducted by the University.

2.4 Staffing of Undergraduate Courses

The Committee reviewed instructional staffing patterns for all levels of undergraduate courses across all colleges. The data reveal that, with some exceptions, undergraduate

students do have direct and widespread access to regular full-time faculty once they are enrolled in courses in the major programs. There is little variation among colleges in this respect. This commitment by faculty to undergraduate instruction, at this level, combined with the growing trend of earlier student selection of majors, results in a pattern of faculty interaction with undergraduates at the University that is strong, and runs parallel to faculty commitment to undergraduate honors instruction, and to the growing emphasis on faculty working with undergraduates in research.

For general education courses - typically 100-300 level courses, the vast majority of which are offered by departments and schools in the ASC - the pattern is more variable. These courses are taught by a mix of regular full-time faculty, graduate teaching associates (GTA), and others (temporary/part-time instructional staff). There is considerable variation in that mix among colleges.

Care must be taken when simply specifying “who” is staffing these courses. Such patterns cannot, and should not, be related to our assumptions about the quality of instruction or the impact on learning outcomes. Nevertheless, the data do reveal that there is significant variation among colleges, with some high levels of GTA and/or part-time instructors, not only in introductory-level courses, but also in some cases in upper-level GEC courses – especially the capstone 597 courses. The Committee believes that choices in staffing do impact the quality of general education courses, and that this issue must be addressed. It should be a general goal that the most distinguished scholars at this University be involved in the general education experience of undergraduates.

The OAA is currently monitoring these staffing patterns, and the University Senate’s Council on Academic Affairs (CAA) is monitoring enrollments and related data to ensure that the current budget model, which strongly links budget and enrollment, is not leading to larger sections of courses with less faculty involvement. Both of these steps should continue and the OAA should work directly with the college deans to ensure an appropriate level of faculty involvement with students in GEC courses at all levels.

3. THE PROPOSED UNDERGRADUATE CURRICULUM

The undergraduate curriculum at the Ohio State University, as proposed in this report, comprises three parts: **(1) The major**, **(2) Non-major requirements (NMRs)** for graduation, and **(3) Electives**. All parts of a student’s undergraduate curriculum are critical. The major provides students with sustained and advanced work in a field of their choice. Non-major requirements help students cement basic skills and broaden their knowledge in ways that will help them be informed and engaged citizens. Electives develop student excitement about learning by allowing interest rather than practicality to drive course choice. The University, all departments, and individual faculty and instructors have a responsibility to provide high quality learning experiences for students in each area of the undergraduate curriculum.

3.1 The Major

The major embodies a student's central field of learning. At a fundamental level, a student's choice of a major defines the essence of his or her educational experience. A major field often leads directly into occupational choice, and even subjects in the more general liberal arts areas are frequently correlated with later professional choices.

Structural diversity of majors The major constitutes, at minimum, 40 credit hours. However, there is substantial structural diversity among the University's 170+ majors, and this diversity determines a great deal about how different students experience their undergraduate careers. Some majors, enrolling approximately half of the undergraduates, are highly structured, with the combined requirements in the major itself and the prerequisite work necessary to get ready for the major using up a very large percentage of the hours needed for graduation. Examples of such fields would include the biological sciences, engineering, foreign language, and music. Such fields, when combined with the non-major requirements, leave students with almost no flexibility to select additional coursework of their own choosing. On the other hand, there are a large number of majors, enrolling approximately the other half of the student body, with relatively modest requirements beyond the non-major requirements and the major itself. These fields, for example, history, psychology, business, and human development, leave students with much genuinely elective time in their curricula.

For students in the highly structured fields, it is important to provide flexibility and freedom for the construction of programs better suited to the individual's needs. Conversely, in the less structured programs, it seems valuable to provide guidance to help students enrich their whole experience in systematic ways. Such students should be encouraged to take double majors, minors or even multiple minors, or to undertake other enriching experiences, and they should be rewarded with useful credit for doing so.

Moreover, it is important to be alert to the possibility that programs may be tempted to use flexibility created by the reforms proposed in this report to enlarge the majors. This would fly in the face of the spirit of the goals of the recommendations; it is a tendency which needs to be resisted.

Review of majors Many major programs are systematically reviewed by their departments and colleges, and the institution-wide accreditation program, which is upcoming, along with a regularized program review system which OAA is planning will make it easier for the University to keep track of majors. As OSU moves to a new environment of accreditation and assessment, a review process must be created for majors as well as for other parts of the undergraduate curriculum. Forty-four percent of OSU's faculty has been appointed in the last 10 years, and these newer members of the faculty should play an active role in re-examining their respective majors, taking into account the different types of students OSU is now recruiting. As discussed below, the Committee recommends that reviews of the major be considered an important part of the oversight process. Issues including the size of majors, the impact of accreditation-driven

changes, and changes in fields of knowledge would be essential parts of these reviews. Majors that have undergone recent revisions could be used as models.

Writing in the major It lies outside the purview and expertise of this Committee to discuss the curricula of majors across the University in detail. However, we do make one proposal that affects all major programs. We propose that the sequence of required Written, Oral and Visual Expression (WOVE) courses should be extended beyond the two courses called for by the NMRs to include a third writing experience delivered within *every* major (for details of this proposal, see section 4.2 below).

Major courses that double as general education courses Offering general education courses should be seen as both a privilege and an obligation, for which major programs are largely responsible. In major courses that double as general education courses, instruction should reflect the fact that these courses must meet general education criteria; they should not be solely intended for majors.

3.2 NMRs for graduation

In the past, non-major requirements collectively were labeled the “General Education requirements” and comprised 80 to 105 credit hours depending on a student’s major and foreign language placement level. The key innovations proposed in this document pertain to these non-major requirements, as discussed in greater detail below. It is important to recognize throughout, however, that students’ non-major experiences are framed by the constraints of their major experiences. As discussed above, some majors have extensive prerequisite requirements that essentially extend the size of the major. In this document, prerequisites are considered to be part of the major, reflecting student perspectives and language.

3.3 Electives

In the past, electives comprised anywhere from 15 to 65 credit hours in principle. However, some students, because of the size of their major and major prerequisite requirements, do not take any true electives during their time at OSU. The Committee underscores the value of electives to undergraduate education and recommends that their use and purpose be reviewed and studied by a body such as CAA or the Oversight Committee proposed below in section 8.

Proposal I: Minimum credit-hours to graduation The Committee proposes that the minimum number of credit-hours required for graduation from OSU should be reduced from the current 191 credit-hours to 180.

Justification: This proposal reflects the fact that many of OSU’s peer institutions require in the neighborhood of 180 credit hours for graduation. Moreover, it is the perception of the State Legislature, the Board of Trustees, and other important constituencies, not least of all the undergraduates themselves, that the 191 credit-hour minimum is excessive. The reduction in total minimum credit-hours from 191 to 180 results in an undergraduate

program that may be completed in 12 quarters, assuming a course load of 15 credit hours per quarter. This not only helps students advance along their chosen career paths more quickly, but it should reduce the financial resources needed to complete an undergraduate degree.

4. NON-MAJOR REQUIREMENTS

4.1 Introduction

NMRs are intended to develop and strengthen students' abilities in three foundational areas: (1) **Demonstrated Cultural Competencies**, (2) **Demonstrated Breadth of Knowledge** and (3) **Demonstrated Skills**. A Capstone Experience provides students the opportunity to recapitulate, synthesize, and build on the knowledge they have gained throughout their college career.

<i>Non Major Requirements</i>								
Demonstrated Cultural Competencies			Demonstrated Breadth of Knowledge				Demonstrated Skills	
Moral Reasoning	Foreign Cultures	Social Diversity in the US	Natural Science	Social Science	Historical Study	Arts & Literature	Written, Oral & Visual Expression	Quantitative & Logical Skills
Capstone Experience								

The requirements of each foundational category are similar to those in the current GEC; the number and type of categories have been largely maintained, thus reaffirming the goals of a general education. However, the NMRs also differ from the current GEC in significant ways: (i) requirements are tied to a student's major and thus may differ from major to major; (ii) the overall size of general education curriculum has been reduced; and (iii) the category structure has been modified to allow for greater flexibility in how a requirement can be satisfied.

Proposal II: NMRs tied to major It is important to emphasize that no student is required to fulfill all requirements. Rather, the specific NMRs that a student must complete depend on the student's major(s); as detailed in section 6.2, each major area of study is exempt from one NMR course. A student also has the option of

substituting an alternative learning experience for a Demonstrated Breadth of Knowledge requirement (see section 6.3). Freshman Clusters provide an additional method of completing NMRs, as discussed in section 5.

Justification: To anticipate the discussion in section 6.2 below, these changes are motivated by the recognition that some general education objectives are met in the student's major(s). Eliminating some of the overlap between NMRs and majors frees up credit hours that can be applied to electives, minors, etc. Moreover, empowering departments to specify the exemption for their majors gives them a degree of autonomy in shaping the NMR, without sacrificing the principle of curricular breadth.

Proposal III: Reduction in number of NMRs A further important change relates to the size of the NMR curriculum. Non-major requirements are reduced for all students from approximately 85 credit hours to 60-65 credit hours (the number of credit hours may vary depending on degree). Coupled with major requirements and electives, the end result is a curriculum of a minimum of 180 credit hours (see section 3 above).

Justification: Fewer centralized core requirements allow students greater flexibility in deciding the particular make-up of their own curriculum. For example, students may choose to sample a wider range of courses outside their major and NMRs, to add a second major or minor to their program, or to become more involved in internships, outreach and study abroad programs. Moreover, reduced non-major requirements give major programs more control over their own particular version of the NMR. Programs may opt to include, for example, a minor or area-of-interest requirement, as is currently and successfully implemented in FAES.

Proposal IV: Modification of categories In addition to an overall reduction in the size of NMRs, we also recommend certain changes to the categories themselves. In some cases the change involves the removal of particular sub-categories, or the introduction of additional ways to satisfy a requirement. In the case of foreign language study, it is proposed that the student's college determine what requirement needs to be fulfilled, if any (see section 4.2.3 below).

Justification: All changes to categories are intended to allow for greater transparency and flexibility in the undergraduate program. Simplifying sub-category structure reduces complexity when it comes to navigating the NMRs thus making the system more transparent to all those using it. Further, introducing additional means of satisfying some requirements not only builds greater flexibility into the system, but also gives students more control over their personal curriculum.

The following discussion focuses on the details of each of the foundational categories and the means by which the requirements can be satisfied. The learning objectives provided for each subcategory are based on the report "Goals and Objectives for the General Education Curriculum" prepared by the ASCCI Sub-Committees B and C and by Alexis Collier, ASCCI Assessment Coordinator (see section 1.4 above).

4.2 Demonstrated Skills

A general education curriculum should prepare students to be educated and productive members of society. To achieve this goal, certain skills must be nurtured, developed and strengthened. These abilities are clearly articulated in the "Interim Report of the Special Committee on Undergraduate Curriculum Review" (1987), and are still relevant today:

Primary among these capacities is the ability to write and speak with clarity and precision; to read and listen critically and with comprehension. Of the same order is the ability to engage in careful logical thinking and critical analysis, including the abilities that permit intelligent responses to problems and arguments which involve quantitative data.

These important skills are the focus of the **Demonstrated Skills** section of the NMR. The **Skills** component requires a student, before graduation, to demonstrate skills in two general areas: written, oral and visual expression, and quantitative and logical reasoning. The categories are largely the same as in the current GEC.

Demonstrated Skills	
Written, Oral & Visual Expression	Math & Logical Analysis

4.2.1 Written, Oral and Visual Expression (WOVE) (10 credit hours, or a Freshman Cluster)

Proposal V: WOVE requirement The goal of WOVE courses is to develop students' skills in writing, reading, critical thinking, and oral and visual expression. Similar to the writing requirement in the current GEC, the WOVE requirement can be fulfilled by successfully completing two courses, selected from a list of approved courses. The goal of the first course is to train students in the fundamentals of expository writing. The objective of the second course is broader in scope: to develop skills in expository writing as well as in oral discussion and/or oral or visual presentation through the study of topics of intellectual merit. The WOVE requirement may also be satisfied by the successful completion of a Freshman Cluster (see section 5).

The Writing Across the Curriculum (WAC) program will be responsible for oversight of WOVE courses (see section 8 below), including the writing component of the Freshman Clusters, to ensure consistency in the delivery of writing courses across all departments, and continuity between first-year writing, second-level writing, and the third writing experience in the majors. WAC at present is an under-utilized resource, and is ideally positioned to assume the responsibility to oversee the WOVE component of general

education. The WAC program staff, in consultation with the departments, should work to develop Writing Across the Curriculum into *Communication Across the Curriculum*, incorporating digital, visual and oral communication skills. The WAC program staff, in consultation with the departments, should also explore portfolio-based forms of assessment in individual writing courses and the writing sequence generally (see section 6.3 below).

WOVE courses have three primary learning objectives:

- (i) Students apply basic skills in expository writing
- (ii) Students demonstrate critical thinking through written, oral or visual expression
- (iii) Students retrieve and use written, oral and visual information analytically and effectively

WOVE courses need not focus on a topic pertaining to the US and consequently differ from second writing courses in the current system. Students acquire knowledge of subjects dealing with the US through the Social Diversity in the US requirement. If the subject-matter is appropriate, however, a WOVE course may be cross-listed with the Social Diversity category or any Cultural Competency requirement, and thus be double counted (see section 4.4.2 below).

Proposal VI: WOVE in the major The sequence of required WOVE courses should be extended beyond the two courses called for by the NMRs to include a third writing experience delivered within *every* major. The WAC program should be given responsibility for oversight and continuity of the WOVE sequence, including development of a third WOVE experience in the majors. Major programs can meet this requirement in various, flexible ways, for example, through communication components spread across multiple courses, as in the College of Engineering. Rather than developing disciplinary-communication courses from scratch, departments should be encouraged to consult with the WAC program staff in redesigning one or more current courses in the major so that they incorporate a communication component, or enhance one already in place.

Justification: Advanced communication skills can only be acquired by continuous practice of verbal and visual communication throughout one's undergraduate career, and this is minimally ensured by requiring a sequence of appropriate courses. Acquisition of flexible communication skills, applicable in all kinds of situations, needs to be balanced with acquisition of skills specific to particular disciplines; hence the requirement for general WOVE courses at the beginning of students' college careers, and the provision of a specialized third WOVE experience within the major discipline.

4.2.2 Quantitative and Logical Reasoning (QLR) (9-10 credit hours)

Proposal VII: QLR requirement Courses in quantitative and logical skills develop logical reasoning, including the ability to identify valid arguments, use mathematical models, and draw conclusions based on quantitative data. A student is

required to demonstrate mastery of quantitative and logical reasoning in three areas:

- (i) *Basic Computational Skills (not a credit hour requirement)*
Math Placement Level R or higher, or Math 075
- (ii) *Mathematical and Logical Analysis (0-5 credit hours)*
Math Placement Level L or by taking one course from a designated list of courses
- (iii) *Data Analysis (5 credit hours)*
One course selected from a designated list of courses. May double count in major

The learning objectives of QLR courses are as follows:

- (i) Students demonstrate computational skills and familiarity with algebra and geometry, and can apply these skills to practical problems
- (ii) Students comprehend mathematical concepts and methods adequate to construct valid arguments, and understand inductive and deductive reasoning, scientific inference, and general problem solving
- (iii) Students understand statistics and probability, comprehend mathematical methods needed to analyze statistical arguments, and recognize the importance of statistical ideas
- (iv) Students demonstrate skills and familiarity with the use of technology for solving quantitative and mathematical problems

Justification: The QLR NMR is similar to the QLR category in the current system. All students, regardless of major, are required to demonstrate proficiency in the areas of: basic computational skills, mathematical and logical analysis, and data analysis. Continual and rapid advances in technology are resulting in the circulation of an ever-increasing amount of information and data. Such changes point to the need for today's students to have facility with skills in Quantitative and Logical Reasoning but, in addition, suggest that now more than ever, these skills are crucial for the understanding and critical evaluation of information. As a result, technology occupies a greater presence in the proposed system: courses fostering skills and familiarity with the use of technology are encouraged in both QLR courses and Natural Sciences courses (see section 4.4.2), thus increasing the opportunities for students to hone their technological skills. As a final note, it is recognized that some students acquire data analysis skills through their major; this proposal is intended to support these programs, not replace them.

4.3 Demonstrated Cultural Competencies

In addition to preparing students to become educated, productive members of society, a general education curriculum should nourish and develop a student's understanding of

diverse patterns of human thought and behavior. Doing so should foster moral and ethical reasoning and an appreciation for others, both locally and globally.

To this end, a student must, before graduation, demonstrate cultural competency in three areas: moral reasoning, foreign cultures, and social diversity in the U.S. These categories do not necessarily entail additional credit hour requirements. Rather, a designated course from another NMR category may be used to satisfy a cultural competency NMR, as may participation in a study abroad program, or in an approved internship or outreach program (see below for details on ways to fulfill each requirement).

Demonstrated Cultural Competencies		
Moral Reasoning	Foreign Cultures	Social Diversity in the US

4.3.1 Moral Reasoning

Proposal VIII: Moral Reasoning requirement Moral reasoning, or ethics, courses foster an understanding of individual and collective practical reasoning about what morally/ethically an entity (individual, organization, or community) ought to do. Competence in Moral Reasoning is satisfied through the completion of one course from a list of approved courses. A course on the list may be cross-listed with another category and hence be counted for both.

Three learning objectives are associated with the Moral Reasoning NMR:

- (i) Students display knowledge of important and recurrent questions of moral choice, value, and action
- (ii) Students understand the important traditions of thought and current debates that inform these questions
- (iii) Students learn to reflect and engage in rational debate about such matters as justice, fairness, obligation, honesty, citizenship, loyalty, courage, and personal responsibility.

Justification: The inclusion of moral reasoning in the undergraduate curriculum reflects the growing awareness of the importance of this competency as part of a student's undergraduate training, as conveyed to the Committee by a number of constituencies. The ASCCI Taskforce on Ethics (2004) arrived at a similar conclusion, outlining in considerable detail the overall importance of moral reasoning (ethics) in undergraduate education. However, the conclusion from the Taskforce's report was that while the requirement is important, including it in the curriculum should not increase the number of credit hours required to graduation. The groups of individuals that this Committee interviewed concurred. For this reason, we propose that demonstrating skill in moral

reasoning be treated the way in which the diversity requirement is handled in the current GEC; that is, courses from the category may be cross-listed with another category and thus be double-counted. Moral Reasoning requirements have been implemented at a number of universities, e.g., the Committee drew upon Harvard University's articulation of its Moral Reasoning requirement in developing the learning objectives above: <http://icg.harvard.edu/~core/redbook.html>

4.3.2 Foreign Cultures

Proposal IX: Foreign Cultures requirement The study of foreign cultures is an effective means of helping students become educated, productive, and principled citizens of their nation and the world. A student fulfills this requirement by choosing two from the following list:

- (i) Language proficiency up to 104
- (ii) An advanced language course (beyond 104)
- (iii) A course from an approved list of courses on topics relating to foreign culture
- (iv) A study abroad program (only one study abroad experience may count for an NMR)

The two choices may fall under the same item, except in the case of item (iv), i.e., a student may offer proficiency up to level 104 in *two* different languages, or take *two* courses from an approved list, or *two* advanced language courses, but may offer only *one* study abroad program toward satisfying the requirement.

The learning objective of the Foreign Cultures NMR is for students to recognize cultural differences in countries other than their own, and demonstrate an appreciation of these differences.

Justification: Encouraging students to become familiar with foreign cultures is an important part of the undergraduate curriculum at OSU. Learning about a foreign culture through the study of the language helps students develop an understanding of other cultures and patterns of thought, and develops students' skills in communication across ethnic, cultural, ideological, and national boundaries. Knowledge of foreign cultures can also be gained from participation in a study abroad program, as well as from courses taught in the student's native language that explore, for example, historical, linguistic, social, and artistic aspects of a foreign society. As a means of recognizing the fact that there are a variety of ways to learn about a foreign culture, flexibility is built into the Foreign Cultures requirement in terms of how it can be satisfied. This includes: demonstrated proficiency a foreign language, advanced study in a foreign language, participating in a study abroad program, and/or taking courses on topics dealing with international culture. A student could thus satisfy the NMR by demonstrating proficiency in a language coupled with a course from the approved list, by taking two courses from the approved list, by taking one advanced language course and then completing an approved study abroad program, etc.

Proposal X: Foreign language proficiency to be determined by colleges As discussed, the Foreign Cultures NMR reflects the importance of foreign languages to a student's education and as such encourages the continued study of foreign languages. Unlike the current GEC, however, the decision of whether or not to require intermediate proficiency in a foreign language up to level 104 or beyond is placed in the hands of the colleges.

Justification: While foreign language study is encouraged through the NMR, the Committee believes that colleges are best able to determine whether their students need coursework through level 104 or beyond for their education and/or future careers. Giving colleges jurisdiction over the decision to include a language requirement is thus formalizing what is already in practice outside of the ASC: for example, International Business currently requires foreign language study while the College of Engineering does not.

The NMR Foreign Cultures category, like the GEC foreign language requirement, is intended to foster in students an understanding of other cultures and patterns of thought. A second goal of studying a foreign language is to help students' develop the ability to speak the language and thus communicate across ethnic, cultural, ideological, and national boundaries. The GEC foreign language requirement in its current form is not sufficient to meet this objective, however, since to attain fluency in another language, a student would need advanced language courses beyond 104. While it may be desirable to require all students to study a foreign language beyond level 104, such a requirement is unrealistic given students' varying interests, abilities and curricular demands. The proposed solution is thus to recognize the importance of the study of foreign language and culture in the NMR while letting colleges determine whether proficiency in a foreign language is needed.

Proposal XI: Foreign Cultures NMR and the current GEC International Issues requirement The Foreign Cultures NMR subsumes the International Issues (6.2) requirement of the current GEC. Thus, courses that currently carry an international diversity designation would be likely candidates for inclusion in the new category.

Justification: The proposed change not only allows for flexibility in the way that the category can be satisfied, it also imposes fewer restrictions on the type of international course to be taken. In the current GEC, a student is required to take two international issues courses: one must be a non-western or global course while the other can be a western (non-US) course. Removing this additional restriction serves two main purposes. First, it allows for greater choice on the part of the student in deciding how to fulfill the requirement (see section 6.3 for further discussion), and second, it results in a simpler structure, in response to concerns from various constituencies interviewed by the Committee.

4.3.3 Social Diversity in the US

Proposal XII: Social Diversity requirement Courses in social diversity contribute to a student's sense of social and cultural diversity, and sensitivity to issues of inequity and of individual similarity and difference, e.g. race, color, gender, ethnicity, language/dialect, religion, and class. Such courses also foster an understanding of the pluralistic nature of institutions, society, and culture in the US. A student may fulfill this requirement in one of four ways:

- (i) Take one course from a list of courses on topics relating to social diversity in the US
- (ii) Participate in an approved internship or outreach program
- (iii) Take an intermediate or (if available) advanced course in American Sign Language (ASL)
- (iv) Take an advanced course in North American Spanish beyond 104, with a focus on Latino language and/or culture in the US

There are two specific learning objectives associated with the Social Diversity in the US requirement:

- (i) Students describe the roles of such categories as race, gender, class, ethnicity, language/dialect and religion in the institutions and cultures of the US
- (ii) Students recognize the role of social diversity in shaping their own attitudes and values

Justification: Fostering an understanding of cultural diversity within the US can be accomplished in more than one way. As in the current GEC, the requirement may be satisfied by taking a designated social diversity course. Involvement in appropriate internships or outreach programs can also give a student insight into cultural differences and, at the same time, provide a service to the community. Potential internships might include working with inner-city youth at a community center, teaching English as a Second Language at a local elementary school, volunteering at a literacy organization, etc. (see additional discussion of internships in section 7.3). Courses in ASL or Spanish in the US provide two other ways to satisfy the social diversity requirement. Given that studying another language provides a student with insight into different cultures and patterns of thought, doing intermediate or advanced study in ASL, or advanced study of Spanish in the US, can help students develop an appreciation for the distinct cultures of these communities in the US.

4.4 Demonstrated Breadth of Knowledge

4.4.1 Background

A key goal of the general education curriculum at OSU is to provide students with the educational resources needed to establish a strong and broad foundation of knowledge.

Breadth of Knowledge establishes a rich base for students to strengthen and build upon, beginning at college and extending throughout their entire life. To attain this goal, students must demonstrate knowledge in four central areas before graduation: natural science, social science, historical study, and arts and literature.

Demonstrated Breadth of Knowledge			
Natural Science	Social Science	Historical Study	Arts & Literature

While structurally similar to the current GEC, the foundational area, Breadth of Knowledge, includes a number of important changes. These are aimed at providing a more streamlined curriculum that allows for greater flexibility in how requirements are fulfilled, while at the same time recognizing the legitimate tension between flexibility and breadth. The most significant changes involve a reduction in the overall number of required credit hours for all students (see section 4.1 above for related discussion), and modifications to the internal structure of the categories. General comments about these two changes appear just below although more detailed discussion relating to the individual category is presented in the relevant category section.

Proposal XIII: Reduction in credit hours The categories that make up the foundational area, Breadth of Knowledge, show a 15 credit hour overall reduction in the number of required credit hours as compared to the current GEC. The credit hour reductions are distributed equally over Natural Science, Social Science and Arts and Literature.

Justification: As outlined in section 4.1.2, the reduction in required credit hours is aimed in part at providing students greater flexibility in designing their degree program. With fewer centralized core requirements, students have more choice in deciding the particular make-up of their curriculum. For example, students may choose to sample a wider range of courses outside their major and NMRs, to add a second major or minor to their program, or to become more involved in internships, outreach and study abroad programs. Reducing university-wide requirements also gives major programs more control over their own version of the NMR. However, to safeguard the flexibility that students gain from the overall reduction in credit hours, a mechanism must be introduced to oversee any potential expansion of major programs that might encroach upon the newly available credit hours.

The reduction of credit hours among Breadth requirements also has important implications for students' time to degree. That is, assuming a course load of 15 credit hours per quarter, a 15 hour overall reduction in non-major requirements means that the undergraduate program may be completed in 12 quarters. This should help students

advance along their chosen career paths more quickly, and may reduce the financial resources needed to complete an undergraduate degree.

4.4.2 Category restructuring

The Breadth requirements differ structurally from the current GEC in a number of ways. In general terms, some category requirements have been made more flexible (Historical Study). In other cases, category internal structure has been simplified (Historical Study, Social Science, Arts and Literature). This restructuring has been guided by three principles: flexibility, transparency, and simplicity. The principles relating to each modification are discussed in the relevant category section below.

(a) **Natural Science** (BA: 15 credit hours including a sequence and lab; BS: 20 credit hours including a sequence and lab)

Proposal XIV: Natural Science requirement Courses in natural sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment. To satisfy this requirement students must take coursework from a designated list of courses in two areas: (i) physical science, including technology, and (ii) biological science. The courses taken must include one sequence and one lab. BA students are required to take 15 credit hours in the two areas. BS students take 20 credit hours of coursework in the two areas.

The learning objectives of the natural science requirement are as follows:

- (i) Students understand the basic facts, principles, theories and methods of modern science
- (ii) Students learn key events in the history of science
- (iii) Students provide examples of the inter-dependence of scientific and technological developments
- (iv) Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world

Justification: The 5 credit hour reduction in natural science is part of an overall reduction in credit hours affecting several areas of the general education curriculum. As discussed above, this is proposed in order to (a) give students more power to determine their own curricula; (b) allow major programs more control over their particular version of the NMR; and (c) allow for the completion of graduation requirements in 12 quarters. The 5 credit hour reduction in natural science can also be viewed as a move towards creating greater equity in the number of credit hours required for each general area of the curriculum.

(b) Social Science (10 credit hours)

Proposal XV: Social Science requirement Courses in social science help students understand human behavior and cognition, as well as the structures of human societies, cultures and institutions. To satisfy this requirement, students must take coursework from a designated list of courses in two areas: (i) individuals in society, and (ii) institutions and social context.

There are three specific learning objectives linked to the social science requirement:

- (i) Students understand the theories and methods of scientific inquiry as they are applied to the studies of individuals, groups, organizations, and societies
- (ii) Students comprehend human differences and similarities in various psychological, social, cultural, economic, geographic, and political contexts
- (iii) Students develop abilities to comprehend and assess individual and social values, and recognize their importance in social problem solving and policy making

Justification: The Social Science NMR stands at 10 credit hours, making it 5 credit hours less than in the current GEC. This reduction in credit hours is, as noted just above, part of an overall reduction in credit hours affecting several areas of the general education curriculum. This was motivated in order to (i) give students more power to determine their own curriculum; (ii) allow major programs more control over their particular version of the NMR; and (iii) decrease students' time-to-degree.

In the current GEC, the Social Science category is divided into three topical sub-categories: (i) individuals and groups; (ii) organization and politics; (iii) human, natural, and economic resources. In contrast, the Social Science category in the NMR is divided into two sub-categories reflecting the major division (micro vs. macro) in social science crossing all disciplines.

(c) Historical Study (10 credit hours)

Proposal XVI: Historical Study requirement Historical Study is recast in the NMR as its own separate category in order to reflect the fact that historical thinking crosscuts almost all disciplines. Courses with a historical focus develop students' knowledge of how past events influence today's society and help them understand how humans view themselves. The category is less restrictive than in the current GEC since any course broadly related to historical study, e.g., history of art, history of language, history of science, regardless of department affiliation, that teaches students to think historically can be considered a possible candidate for satisfying the requirement. The requirement also differs from the current system in that a two-course sequence is not required.

Students satisfy the Historical Study requirement by taking two courses from a list of approved courses.

There are three specific learning objectives associated with the Historical Study NMR:

- (i) Students display knowledge and understanding of human history
- (ii) Students compare contemporary social values with those of other communities in time and space
- (iii) Students place current problems and issues in their larger historical context

Justification: The new Historical Study category affords greater choice to students with respect to the types of issues covered and the range of perspectives presented. Flexibility is further enhanced by the removal of a two-course sequence requirement as found in the current GEC, resulting in a simpler, flatter structure. Removing the sequence requirement is also aimed at providing students with more options. A student might choose to take an advanced level course to build on a lower-level course already taken and so gain a deeper understanding of the particular topic. Alternatively, courses might be taken on topics dealing with two distinct time periods or two different geographical regions.

(d) Arts and Literature (10 credit hours)

Proposal XVII: Arts and Literature requirement In the study of arts and literature, students evaluate significant writing and works of art as a means of developing their capacities for aesthetic response and judgment; interpretation and evaluation; critical listening, reading, seeing, thinking, and writing; and experiencing the arts and reflecting on that experience. The Arts and Literature category contains two sub-categories: Visual/Performing Arts, and Literature. A student fulfills this 10 credit hour requirement by selecting one course from each category.

The learning objectives associated with the study of Arts and Literature are as follows:

- (i) Students develop abilities to be enlightened observers or active participants in the visual, spatial, musical, theatrical, rhetorical, or written arts
- (ii) Students describe and interpret achievement in the arts and literature
- (iii) Students explain how works of art and literature express social and cultural issues.

Justification: With the recasting of Historical Study as an independent category, the Arts and Literature NMR also becomes a separate requirement. Consequently, unlike the current GEC, the two categories are not subsumed within a single "Arts and Humanities" area. The motivation for this change is discussed under Historical Study above.

The Arts and Literature NMR also departs from the current GEC in that it contains only two, as opposed to three, sub-categories. Presently, Arts and Literature is combined with the sub-category *Cultures and Ideas* under the heading *Analysis of Texts and Works of Art*. *Cultures and Ideas* is removed from the newly recast Arts and Literature category, thus reducing the credit hours for this requirement to 10. This change is motivated by the observation that courses in the category, *Cultures and Ideas*, do not address a common theme or goal, as compared to courses in, for example, the Literature or

Visual/Performing Arts categories. Nor can the majority of the courses in the category be described uniformly under the current heading, *Analysis of Texts and Works of Art*. As a result, the category, *Cultures and Ideas*, has evolved into a type of grab-bag for Humanities courses that do not fit under any other GEC categories.

Abolishing the *Cultures and Ideas* category is not meant to imply that the courses in that category are not important. On the contrary, the category includes some courses of very high value that should not be eliminated from the curriculum. To resolve this issue, it is proposed that most courses from the category be moved to other appropriate categories. Of the 94 courses listed under *Cultures and Ideas*, three-quarters would fit into either Social Diversity in the US or Foreign Cultures. Others would fit naturally under Moral Reasoning, Historical Survey, or other NMR categories.

4.5 Capstone Experience

Proposal XVIII: Capstone Experience The capstone experience, for students in their junior or senior year, involves thematic upper-division course work taught by faculty that allows students to build on and synthesize the knowledge they have gained throughout their college career. The capstone requirement may be fulfilled by taking one of three types of courses:

- (i) ***597, Issues of the Contemporary World***
- (ii) **an approved capstone course from the student's major**
- (iii) **a Senior Cluster**

Both the 597 courses and senior clusters are interdisciplinary in nature, bringing multiple perspectives to a topic of global significance in the contemporary world. Both 597s and senior clusters may be double-counted for another NMR category. Similarly, a major capstone course may be used towards the student's major as well as satisfying the Capstone Experience requirement. As a result, the Capstone Experience is not necessarily an additional credit hour requirement.

The learning objectives associated with the Capstone Experience are as follows:

- (i) Students synthesize and apply knowledge from diverse perspectives to issues of import to the contemporary world, or to a topic of significance relating to the student's major
- (ii) Students discuss, write about or conduct research on issues of import to the contemporary world, or to a topic of significance relating to the student's major

Justification: The Capstone Experience is an important aspect of a student's college education because it allows advanced students to bring together and digest knowledge acquired from a variety of areas and perspectives. The capstone experience in the current GEC requires students in some colleges to take a 597 course. In practice, however, there have been significant problems associated with implementing the requirement. This is

due in part to the fact that an insufficient number of 597 courses is offered. Consequently, class sizes typically far exceed the originally intended enrollment of 40, which in turn makes it difficult to allow for intensive faculty-student interaction. The limited number of course offerings has also led to the requirement being waived for some students, thus denying them the benefit of this valuable experience. Further, while 597s were originally designed to be faculty-taught courses, it is not uncommon now for the courses to be taught by graduate students.

The Committee reaffirms the values of the goals of the Capstone Experience, yet at the same time acknowledges that modifications to the current system are absolutely necessary. The Committee also recognizes the fact that some majors, such as History and English, already provide their students with successful capstone experiences that are in keeping with the intended goals of the requirement. In view of this, it is proposed that greater flexibility be introduced into how the requirement is satisfied. It is hoped that with more options available, all students, regardless of college, will be given the opportunity to benefit from a capstone experience.

As a third way to fulfill the requirement, the Committee recommends the introduction of Senior Clusters, after the Freshman Cluster pilots are determined to be successful (see section 5.3). These interdisciplinary clusters bring together advanced-level students from diverse disciplines to study the application of knowledge from different areas to a common issue. The eventual introduction of Senior Clusters would allow more students the option of benefiting from interdisciplinary experiences, and make more interdisciplinary experiences available to students. For students who are unable to take a Freshman Cluster, due to intensive course requirements in their freshman year, Senior Clusters provide the opportunity to take advantage of these interdisciplinary experiences at a later stage in their education.

5. FRESHMAN CLUSTERS

5.1 Overview

The centerpiece of the new approach to NMRs is the **Freshman Cluster**. This is a three-quarter course sequence built around a single, interdisciplinary theme such as "the global environment," "the democratic experience," "mathematical order of the natural world," "citizenship and ethnicity in the US," or "the immigrant experience." Cluster themes *must* be interdisciplinary and reasonably fall into at least two different areas under Breadth of Knowledge.

Proposal XIX: Freshman Cluster program A Freshman Cluster would count for 3 Demonstrated Breadth courses and demonstrate skill in writing without further coursework, therefore fulfilling 40 percent of NMR in the first year. Freshman Clusters would increase contact between freshmen and faculty, increase efficiency in meeting the NMRs, and improve the connection between the goals of a general education and the classroom experience.

A pilot program is envisioned to establish methods for compensating faculty and departments as well as approving curricular goals. If successful, the cluster model would eventually be expanded to accommodate higher rank students, in particular BS and professional school students who currently often take GEC courses as seniors (see proposal for Senior Clusters, section 5.3 below).

Justification: This proposal is in part a response to increased emphasis on the first-year experience at OSU and the steadily rising quality of students admitted. The cluster is an intense, faculty-led experience that provides flexibility and efficiency to the student by meeting multiple non-major requirements in the first year. A carefully planned cluster also ties together the goals of Demonstrated Breadth under a unifying theme, thus making those goals more transparent to the student. Above all, the Freshman Cluster enhances intellectual coherence in the undergraduate curriculum, integrating three Breadth courses and two writing courses that might otherwise be experienced as disconnected, piecemeal requirements. Clusters are not intended to completely supplant traditional GEC courses but to provide an opportunity for faculty from different departments to interact, yielding a rich learning experience for students. A similar type of program has been successfully implemented at UCLA, whose experience provides useful precedents. The general outline of our Freshman Cluster proposal is explicitly modeled on UCLA's program. (For details of the UCLA program, see <http://www.college.ucla.edu/ge/clusters/1998-1999/proposal.htm>; for current cluster courses at UCLA, see <http://www.college.ucla.edu/ge/clusters/>).

5.2 Implementation

- (i) Each three quarter sequence (fall, winter, spring) would address a single, interdisciplinary theme, e.g., "the global environment," "the democratic experience," "mathematical order of the natural world," "citizenship and ethnicity in the US," or "the immigrant experience." Cluster themes *must* be interdisciplinary and reasonably fall into at least two different areas under Breadth of Knowledge.
- (ii) During the fall and winter, instruction in the clusters would consist of large (200+ student) lecture courses meeting twice a week, taught by at least three faculty members from different departments spanning at least two Demonstrated Breadth areas, in coordination with smaller discussion sections/writing tutorials meeting an additional two times a week. During the spring, students would select one of a number of small (approximately 25 student) seminars with topics that vary but that are all related to the cluster theme.
- (iii) Writing plays a critical role in the Freshman Cluster program. Each quarter, students must write at least three papers on topics presented in the clusters. Drafting and rewriting must occur during at least the first quarter. GTAs would evaluate papers for both content and form.

- (iv) GTAs must have at least four quarters of teaching experience and would be selected through a competitive process based at least partly on demonstrated writing ability.
- (v) GTAs should be trained in teaching and critiquing writing prior to beginning, perhaps through WAC (see sections 4.2.1 and 8.1).
- (vi) Use of primary source materials is strongly encouraged.
- (vii) Each cluster would have one faculty coordinator who leads a cluster team consisting of at least two additional faculty members, GTAs for the discussion section, and supplemental active faculty, emeriti faculty, lecturers, and advanced graduate students to lead the satellite seminars in the third quarter. Coordinators assume primary responsibility for planning and organizing the cluster; they will also give a portion of the lectures, teach one honors discussion section and one third-quarter seminar, and supervise the graduate instructors assigned to the cluster. Additional faculty members must come from different departments that can reasonably be viewed as contributing primarily to different NMR areas.
- (viii) RBB credit will be divided among the departments whose faculty and/or GTAs are teaching in the cluster with the coordinator's department receiving a larger share.
- (ix) Clusters will be proposed by teams of interdisciplinary departments and proposals will be reviewed and approved by the general education curriculum Oversight Committee (see section 8 below).
- (x) The clusters would be open only to entering freshman. The fall-winter-spring sequence would be the only sequence offered each year. Freshman will only receive the "five-NMR-courses-for-taking-three" bonus if they complete the entire sequence with a grade of C- or better in each course. Thus, freshman who complete only the first quarter of the sequence would receive only one NMR credit for the course. Students who fail a course in the sequence, transfer students, sophomores, etc. would not be eligible to participate in the Freshman Cluster program. New students are not accepted into any cluster sequence during the winter or spring quarters.
- (xi) The ultimate goal would be the provision of enough Freshman Cluster spots to accommodate every entering freshman who is interested in taking a Cluster and is able to fit it into his/her schedule. During the "ramp up" period, freshman would enroll in clusters on a first-come, first-served basis. However, to ensure general availability of Freshman Clusters to the widest possible range of students, some mechanism needs to be implemented to prevent them from being monopolized by honors students and others with high-priority enrollment privileges.
- (xii) Because they are so new, and because of their potential impact on budgeting, Freshman Clusters will need to be piloted before they are fully implemented, much as they were at UCLA.

5.3 Senior Clusters

Proposal XX: Senior Cluster program Once Freshman Clusters have been piloted and are determined to be successful, it is proposed that Senior Clusters be introduced on the model of the Freshman Cluster program.

Interdisciplinary Senior Clusters would bring together advanced level students from diverse disciplines to study the application of knowledge from different areas to a common issue. As in the case of Freshman Clusters, students could use a Senior Cluster to satisfy three Demonstrated Breadth requirements. However, Senior Clusters are not intended to fulfill WOVE requirements; it is expected that a student with senior standing would already have completed these requirements. As Senior Clusters are incorporated into the curriculum, they would serve as one of several ways of meeting the expectation for a capstone experience; other options are 597 courses and capstone courses in the major programs. (See section 4.5 above).

Justification: The introduction of Senior Clusters allows more students the option of benefiting from interdisciplinary experiences, and makes more interdisciplinary experiences available to students. Senior Clusters will give students who, due to intensive course requirements in their freshman year, are unable to take a Freshman Cluster, the opportunity to experience these three-quarter-long capstone experiences at a later stage in their undergraduate careers. They will be particularly attractive to BS and professional school students who currently often have no choice but to take GEC courses as seniors. Departments that currently have successful capstone courses should be encouraged to develop these courses into Senior Clusters.

6. INCREASING FLEXIBILITY AND STUDENT CHOICE

6.1 Overview

Meeting the goals of a general education with a large and diverse student body requires us to acknowledge that these goals may be met using more than one type of educational experience. Further, due to the diversity of majors offered at the university, the Demonstrated Breadth requirement has significantly different impacts depending on the chosen major. In addition to the Freshman Clusters described above, we propose three methods to address the need of students to have some choice in shaping their own Non-Major curriculum: **Exemptions, Substitutions, and Minors.**

6.2 Exemptions

Proposal XXI: Students are exempt from one course Students are exempt from one NMR course through their major. Majors or programs will nominate a category of the NMR (except WOVE) that is *most closely related* to that degree program. Students in that major will be exempt from one course in that category when meeting their NMRs. For example, an English-major can be exempt from a course

in Literature, or a Physics major can be exempt from a course in Natural Science. Although many of the exemptions are expected to come from the Demonstrated Breadth areas, this is not required. Occasionally, the exemption may cover a Demonstrated Skills area, e.g., Mathematics majors may be exempt from Quantitative Reasoning - Data Analysis. However, no student shall be exempt from the writing (WOVE) component of the NMRs.

Justification: Exemptions are recognition of the overlap between general education objectives and different majors. In attempting to define a core set of learning outcomes for a graduate of the university, one must recognize explicitly that some of those are met in the major. Allowing departments to specify the exemption places some autonomy with the departments for shaping the NMR. Because it addresses overlap instead of the blanket “drop-a-GEC” option used in some programs, exemption helps to preserve breadth. In the new curriculum there would no longer any need for a mechanism like the current drop-a-GEC option.

6.3 Substitution

Proposal XXII: Students can substitute one course The goals of a general education are not usually tied directly to individual courses but to student learning. Learning can be demonstrated and documented in multiple ways including taking courses in a specific area, performing research, or completing an internship or an outreach experience. Determining the equivalence of learning outcomes from different experiences will be a difficult task and will require significant input from academic advisors (among others). The specific proposal is that one demonstrated breadth course can be replaced by:

- (i) ***An upper-level course in a breadth area the student has already fulfilled*** This substitution allows a student to pursue a breadth area beyond an initial exposure.
- (ii) ***An approved extracurricular internship*** Internships and cooperative work or outreach experiences provide learning outcomes that may overlap with one or more demonstrated breadth areas. “Field experience” courses (289, 489, and 589 as suggested by OAA) would be appropriate curricular elements for this substitution along with evaluation by the department and extracurricular supervisor. The Linguistics department has developed an example of an appropriate evaluation process that may serve as a model.
- (iii) ***Five credit-hours of independent research under supervision of faculty member*** Independent research fosters several of the goals of a general education, critical thinking skills being the most obvious of them. Completion of an honors thesis would also fulfill this substitution.
- (iv) ***A three- to five-credit Freshman Seminar*** It is proposed that there be greater integration of the Freshman Seminars into the undergraduate curriculum. This can be achieved first, by increasing the credit hour value of a Freshman Seminar from one to, e.g., three credit hours, and second, by allowing students to count a freshman seminar towards a non-major requirement (NMR). The expectation is

that the faculty member and his/her department would be sufficiently compensated for the individual's contribution to the program. (Note that the freshman seminar program is to be distinguished from the Freshman Cluster program, described in section 5 above).

Piloted in 2003-04, the Freshman Seminar program offered 30 seminars in its inaugural year, addressing a range of disciplines and topics. Freshman Seminars received very positive evaluations from both students and participating faculty, according to the Arts and Science Committee on Curriculum and Instruction in its report on the pilot program. Taught by faculty and capped at 20 students each, these small-enrollment courses provide an exciting opportunity for freshmen and should continue to be supported and encouraged.

For freshmen who are not able to enroll in a Freshman Cluster, Freshman Seminars provide a further option for new students. However, with major and non-major requirements to fulfill, students may not feel that they have sufficient time to spend taking an additional course. Integrating the seminars into the curriculum as proposed is intended to encourage students to participate in the program and to accord more value to the seminars.

An increase in credit hours from one to three is proposed for three reasons. First, it would create greater equity among the various means, e.g., courses, research assistantship, internship, by which a student would be able to fulfill a NMR requirement; all would be worth between 3 and 5 credit hours. If freshman seminars were to remain at a single credit hour there would seem to be weaker justification for allowing it to substitute for a 5 credit hour course. Second, increasing the credit hours and thus the amount of time spent in the seminar addresses a concern raised by some Freshman Seminar instructors: a one credit hour course does not allow sufficient time for students and faculty to delve into a topic, leaving room for discussion. A more substantial seminar would justify integrating it into an instructor's regular teaching load. Third, by institutionalizing the seminars directly into the undergraduate curriculum, we would be assigning greater value to the seminars and in doing so, further demonstrate the University's commitment to encouraging student-faculty interaction in small learning environments.

Justification: The goal of a university education is to graduate students with the characteristics of an educated person. The method of ensuring these characteristics are developed in students is not as important as the end result, and different means can achieve the same ends equally successfully. Oversight of these substitutions should be focused on documented student learning outcomes and not counting hours. There is an opportunity to make significant use of electronic portfolios in documenting and approving these substitutions.

6.4 Minors

Proposal XXII: Completion of a minor contributes to Demonstrated Breadth in the NMRs Minors (and double majors) are valuable means for enabling students to develop breadth while at the same time catering to their special interests. Moreover, minors are vehicles for some of the most innovative curricular development at OSU, notably in interdisciplinary areas. Students should be encouraged to take minors (and double majors) and units should be encouraged to develop and offer them.

In the spirit of the exemptions described above, we propose that minors requiring coverage of particular areas of the NMR be allowed to count for those areas in the student's curriculum. Because of the change in the foreign language requirement described in section 4.3.3 above, foreign language minors are particularly encouraged and given specific consideration here. It is the Committee's intent that double majors should receive the same consideration with respect to NMR requirements.

- (i) A minor in a subject that can be unequivocally identified with an NMR category shall be considered as satisfying that category. For example, a minor in History would count as satisfying the Historical Study category, or a minor in Economics would count as satisfying the Social Science category.
- (ii) A minor in a Foreign Language shall be considered as completion of the Foreign Cultures component of the Cultural Competencies. Further, in recognition of the broad scope of a foreign language minor and to strongly encourage enrollment, completion of the minor shall count five credit hours towards the NMRs in each of the Social Science, Historical Study, and Arts and Literature categories (15 credits total toward the NMR and satisfaction of the Foreign Cultures requirements).
- (iii) Interdisciplinary Minors should be given due consideration for counting towards individual components of the NMRs through the Oversight Committee.

Justification: Minors are recognized mechanisms of rewarding students for undertaking a coherent, integrated unit of study outside their major programs. They have the effect of "prepackaging" areas of the curriculum, contributing to the integration of coursework that might otherwise be experienced as piecemeal. Moreover, minors have built-in appeal because they result in explicit recognition on the transcript for the student and increased enrollment for the offering department or program. Because they are required to be well structured curricular elements with specific learning objectives, they should be considered an equivalent learning experience when those objectives overlap with the objectives of a general education. It is apparent to the Committee that this overlap exists in several cases, and perhaps may be even more pervasive across the University. We can think of no compelling reason to disallow minors or double majors from contributing to the satisfying of NMRs.

7. OVERALL RESULT: REDUCTION IN SIZE OF THE NON-MAJOR CURRICULUM

7.1 Summary

The new Demonstrated Skills, Demonstrated Cultural Competencies, and Demonstrated Breadth of Knowledge requirements, combined with exemptions, produce a 25 percent reduction in the credit-hour size of students' NMRs when compared to the old GEC. BA students move from 85 credit hours worth of requirements to 60 hours. BS students move from 85 credit hours to 65 credit hours. Further, the addition of a Freshman Cluster reduces a student's required credit hours even further, to 50-55. Increased flexibility and student choice, as outlined in section 6 above, will further ease the fulfillment of NMRs. Finally, allowing foreign language proficiency to be determined by individual colleges will increase flexibility for a subset of the student body. This section will describe each of these benefits in detail.

7.2 Proposed Reductions in NMRs

Both BA and BS students will experience a 25 percent reduction in the total number of NMRs required under the proposed plan. Their paths to this reduction vary, however. For BA students, the reduction from 85 credit hours required to 60 occurs because BA students:

- (i) take 5 fewer credit hours in Natural Science,
- (ii) take 5 fewer credit hours in Arts and Literature,
- (iii) take 5 fewer credit hours in Social Science,
- (iv) do not have a credit hour requirement for the Senior Capstone experience, resulting in 5 fewer credit hours, and
- (v) may take one exemption for a reduction of 5 credit hours.

For BS students, the reduction from 80-85² credit hours to 65 occurs because BS students:

- (i) take 5 fewer credit hours in Natural Science,
- (ii) take 5 fewer credit hours in Arts and Literature,
- (iii) take 5 fewer credit hours in Social Science, and
- (iv) may take one exemption for a reduction of 0-5 credit hours.³

Under the new NMR structure, BS majors have 5 more required NMR credit hours than BA majors. The new structure is more transparent than the old GEC in making the

² Under the current GEC, students in astronomy, chemistry, CIS, geological science, and physics have a 'drop-a-GEC' option that reduces their total credit hours from 85 to 80.

³ As noted in footnote 1, students in five BS majors already have a 'drop-a-GEC' option which brings their total credit hours to 80 from 85. For these students, the exemption does not result in a real reduction of credit hours. This change makes all BS majors equivalent in the size of their NMRs.

difference between the BA and BS clear – under the new system NMRs for the two degrees are the same except that BS students take 5 more credit hours of Natural Science than BA students. It is reasonable and appropriate that BS students take more Natural Science than BA students without sacrificing Demonstrated Breadth of Knowledge in other areas. BS students still experience a 25 percent reduction in their NMRs under the new structure and will likely take the additional 5 credit hours in Natural Science as part of their pre-requisites to the major. In addition, all BS students now have the same NMR requirements.

7.3 Further Reductions in NMRs with Freshman Cluster

As a centerpiece of this proposal, Freshman Clusters serve to increase student enthusiasm for interdisciplinary learning early in their college career and will provide coherence to their initial NMRs. But Freshman Clusters can also serve to further reduce a student's NMRs. If a BA or BS student completes a Freshman Cluster, their NMR credit hour requirements are further reduced from 60-65 to 50-55. This reduction occurs because under the proposed new Demonstrated Skills area, students can demonstrate writing by successfully completing a Freshman Cluster *or* by taking 10 credit hours. This is the “bonus” described in section 5 above. See Table 1 for a summary of how student credit hours spent on Non-Major Requirements are reduced with and without Freshman Clusters.

7.4 Flexibility and Student Choice Aid Students in Completing NMRs and Enhance Coherence

Outside of exemptions and Freshman Clusters, the other aspects of flexibility discussed in section 6 will not reduce a student's credit hour requirements but will (i) aid students in completing these requirements and (ii) help add coherence to students' Non-Major coursework. Flexibility was a major theme to arise both during Committee discussions and in conversations with the University community about the GEC. Both students and faculty saw benefits to increasing flexibility, including student satisfaction with non-major requirements and faster time to degree. In our interviews with students, faculty, and staff across campus, the Committee also found a common complaint to be a lack of coherence in the GEC. Students were perceived, and perceived themselves, to be taking a random assortment of classes from different areas. Links between GEC courses were seen as minimal to non-existent. A lack of coherence may partially explain general student complaints about having to take GEC courses.

Table 1: Comparison of Credit Hours under the GEC and the Proposed NMR

BA Student

	GEC ¹	NMR ²	NMR with Cluster
Writing and Related Skills	10	10	0
Quantitative and Logical Reasoning	9-10	9-10	9-10
Natural Science	20	15	15
Social Science	15	10	10
Historical Study	10	10	10
Arts and Literature	15	10	10
Capstone	5	0	0
exemption	n/a	-5	-5
Total	85	60	50

BS Student³

	GEC ¹	NMR ²	NMR with Cluster
Writing and Related Skills	10	10	0
Quantitative and Logical Reasoning	10	10	10
Natural Science	25	20	20
Social Science	15	10	10
Historical Study	10	10	10
Arts and Literature	15	10	10
Capstone	0	0	0
exemption	n/a	-5	-5
Total	85	65	55

1 The BA GEC also includes noncredit requirements in "Social Diversity in the United States," "Non-Western International Issues," and "Western International Issues."

2 The BA NMR also includes noncredit requirements in "moral reasoning," "foreign cultures," and "social diversity in the U.S."

3 For a student in a major that does not have "drop-a-GEC"

Course substitution, as outlined in section 6.3 above, allows students the option of substituting research, approved internships, or upper-level courses for a single Demonstrated Breadth course. Such substitutions will allow greater flexibility within the GEC by giving students the option of using educational experiences beyond coursework to satisfy the GEC.⁴ Further, they will encourage student involvement in internships, outreach and research opportunities. An additional positive outcome of this approach is that it addresses a major complaint from students regarding “excessive requirements” in some areas. With GEC electives, students have the option of taking courses in these areas or using alternative means of satisfying the required credit hours.⁵ Finally, because internships, research, and upper-level courses build on a student’s existing body of knowledge, they are likely to increase the coherence of a student’s program.

Minors are another way to increase coherence in a student’s program. As discussed in section 6.4 above, students who minor in a subject area related to a Demonstrated Breadth category will automatically complete their NMR requirements for that category. Foreign Language and Interdisciplinary minors complete NMR requirements across a variety of Demonstrated Breadth areas. Not only does this increase student choice in completing GEC requirements, but it will enhance coherence, as minors are designed to produce a consistent program of study.

7.5 Foreign Language Requirement Determined by Colleges

The Committee also needed to address student dissatisfaction with the current Foreign Language requirement. More and more OSU students are entering with foreign language training. Unfortunately, rather than feeling encouraged to further their study of this language at OSU, many appear to feel that the language requirement is onerous. Proficiency at level 104 does not convey fluency in a language, but students are not systematically encouraged to take further coursework. Therefore, the Committee recommends: (i) that the foreign language requirement be determined at the college level, as the colleges are best able to determine whether their students will need coursework through level 104 for their education and/or future careers; and (ii) that alternative mechanisms for encouraging advanced coursework in foreign languages be implemented in the NMR. (See section 4.3.2 above.)

To encourage further course work (beyond the 104 level), the Committee suggests that foreign language minors be counted as fulfilling three Demonstrated Breadth requirements – 5 credit hours of Social Science, 5 credit hours of Historical Study, and 5

⁴ We recognize that petitioning was allowed under the old system. The goal of this suggestion is to (i) make it easier and more standard for students to substitute alternative learning experiences for a NMR, and (ii) to allow more options for substitution than under the old system.

⁵ Oversight mechanisms may need to be put in place to approve an internship, outreach program or research opportunity before the student can count it for GEC credit. Career Services may be able to work with individuals involved in GEC oversight to create a list of approved internships and outreach programs. Programs not on the list would need to get separate approval from, for example, an advisor. See section 8 for a larger discussion of GEC oversight.

credit hours of Arts and Literature – as well as the Foreign Cultures requirements (see section 6.4 above).

Further, as discussed in section 4.3.2, the Committee recommends that proficiency in one or more foreign languages, advanced coursework in a foreign language beyond the 104 level, and/or a study abroad will all count towards the Foreign Cultures category of the Cultural Competencies requirement.

These changes will encourage students to pursue advanced study in a foreign language, thereby increasing their fluency and providing them with deepened knowledge of a foreign culture.

8. OVERSIGHT

8.1 General Education Oversight

Proposal XXIII: Creation of an Oversight Committee A General Education Oversight Committee should be created as a special subcommittee of the CAA to monitor the quality and effectiveness of the GEC/NMR courses across the University and to implement policy and structural and programmatic changes as needed. Its responsibilities would include reviewing and approving proposals for Freshman Clusters (see section 5 above). This Committee would consist of a director, representatives from departments and colleges across the university, and liaison members from CAA and the Registrar's Office. A small staff will support the activities of this Committee.

Reporting to the General Education Oversight Committee will be the WAC program. The WAC program should be given responsibility for oversight of the writing (WOVE) sequence, including the writing component of the Freshman Cluster program and the third writing experience in the majors (see section 4.2 above). WAC should be reinvented as an office with a faculty coordinator and staff. It should have responsibility for providing workshops and other training opportunities for faculty and GTAs who deliver writing courses, as well as general oversight of the writing sequence.

Justification: The GEC, as presently constituted, is managed in a piecemeal fashion. The ASCCI approves GEC courses, and so performs oversight at the front end of course development. However, few systematic mechanisms are in place to provide follow-up assessments. Planning and decisions concerned with the allocations of time and money for courses are made at college and departmental levels. There is neither a framework nor a process in place to deal with policy issues of the GEC as a whole nor any ability to affect the implementation of GEC courses within particular colleges or departments.

The lack of coherent, high-level oversight has meant that the broad structure of the GEC has remained virtually unchanged since its inception, because no processes are in place to accommodate change or solve problems. The recent initiative by the College of

Engineering to change certain aspects of the GEC as it affects their students highlights the difficulties in changing the GEC. Moreover, problems related specifically to the GEC remain unidentified or perhaps revealed belatedly through student grievances.

Addressing issues and problems of the GEC requires oversight at the University level. The Oversight Committee needs to be broadly constituted so that responsibility for the curriculum can be spread beyond those units primarily concerned with providing courses to include as well those who mainly contribute students for those courses. We envision that oversight will bring to the general education improvements in coordination, monitoring, quality and consistency.

The University should strive for greater consistency in the delivery of writing courses across all departments, and for greater continuity between first-year writing, second-level writing, and the third writing experience. Such consistency and continuity can be enhanced by making the WAC office responsible for oversight of the entire writing (WOVE) sequence.

8.2 ASCCI Sub-Committee on Assessment

Proposal XXIV: Endorsement of Assessment Plans of ASCCI Sub-Committee on Assessment The ASCCI Sub-Committee on Assessment has developed a plan for assessing general education courses. The plan involves ongoing assessments based on learning outcomes, which will form a basis for improving course curricula and instructional practices. Reports will be created following assessment plans developed by various departments. It is anticipated that all courses that are part of the general education program will be reviewed over a ten-year period and with subsequent progress reports for large enrollment courses every five years.

Our Committee recognizes the need for new approaches that have the potential to improve general education courses and provide a periodic review of how the content of these courses is changing through time. Accordingly, this approach to assessment is endorsed in a general sense. The Committee however views this assessment activity as only part of a much more comprehensive program of oversight activities bearing on general education. For this reason, this oversight function should be vested in the General Education Oversight Committee described above in Section 8.1.

Justification: The need for outcomes assessment has been widely discussed. The absence of university-wide approaches for evaluating individual courses, based on learning outcomes, was highlighted as a significant weakness in the most recent university-accreditation exercise. The course review approach using a variety of sampling techniques promises to help improve the effectiveness of general education courses. By itself, however, this process is neither timely enough nor sufficiently comprehensive to serve as a basis for monitoring general education as a whole. We envision that a general education oversight committee with operational support serving as the assessment home.

The Committee recognizes that some oversight functions may need to be delegated to units like the WAC that also have resources to bring to bear on the problem.

8.3. Information Collection

Proposal XXV: Comprehensive Information Collection and Synthesis It is essential that information be collected and synthesized to facilitate the management of General Education at the level of individual NMR courses and the curriculum as a whole. The Committee envisions:

- (i) Comprehensive and coherent databases providing information about students and their college/program homes, the individual courses and instructors, etc.;
- (ii) Student surveys for every GEC course assessing satisfaction in a general education context (see section 9 below); and
- (iii) Detailed rolling reviews of categories of NMRs and their key constituent courses. Each year the unit(s) responsible for delivering courses in one of the NMR categories will revisit the courses in that category, compare present versions and delivery of the courses to goals as articulated when courses were approved, and recommend changes when necessary. Each year one category should be reviewed, so that the entire NMR curriculum would be reviewed in a cycle of ten years.

Justification: Currently, information relevant to the GEC is limited and that which the Committee was able to examine was usually developed for other purposes. If the oversight proposal is adopted, then it will be essential to provide information necessary to guide this effort. There is a need for information in at least three broad areas: (i) basic information about the courses, their students, and their instructors; (ii) surveys of student satisfaction on how well courses met expectations for the GEC; and (iii) assessment of student learning to see how effectively categories of the GEC and their component courses are fulfilling the GEC goals and objectives.

In the area of basic information, there are few data concerning for example, how courses are staffed and organized, how these staffing and organization patterns change with time, or what trends exist in the creation of new courses. One of the student criticisms of the GEC is that in some programs GEC courses are almost never taught by members of the regular faculty. Progress in improving the undergraduate experience in this respect can only be measured with specific information about courses and how they are implemented.

Another common student complaint about GEC courses is that they often lose sight of their GEC goals and objectives, stressing memorization of factual knowledge about subjects rather than building broader concepts. At present, GEC courses often double as introductory course for majors. Course content may be pedagogically inappropriate for students taking the courses to satisfy GEC requirements, and this seems to be one source of students' dissatisfaction with the current GEC. From the perspective of individual instructors, GEC courses are not commonly viewed in terms of the expanded goals and

objectives that come along with them. Courses intensively vetted at their inception are free to drift in directions determined by generations of instructors far removed from the beginnings of the course and its original GEC roots. The extent or importance of this issue is of course unknown because so little is known about individual course implementations. One possibility for providing comprehensive feedback of student satisfaction with courses is an instrument to survey student attitudes. The Committee envisions a short common questionnaire for all NMR courses that explores student satisfaction with aspects of the course, not the instructor, focusing particularly on whether it meets students' goals and expectations for NMR courses, and how best it could be improved. The Committee sees this questionnaire as having a form similar to SEIs. While the limitations of these surveys are well understood, their ability to provide comprehensive, continuing and consistent feedback is a real advantage (see section 9 below). The Committee has noted the efforts of the ASCCI through the recommendations of Collier Committee to begin with course reviews. There are opportunities to aggregate the data further, taking it to higher levels to understand how both individual categories and general education as a whole are functioning.

9. TRANSPARENCY AND COMMUNICATION

Proposal XXVI: Communication The goals of general education need to be communicated clearly to advisors, faculty, and students, and they need to be articulated in each and every NMR course. Information about general education structure and goals should be readily accessible to students, advisors, and faculty alike. Incentives should be provided for departments and instructors to articulate general education goals in courses for which they are responsible. Given the flexibility of the new general education curriculum, high quality advising is more crucial than ever.

Implementation:

The GEC web-site should be redesigned so that it is easy to find, explicit about general education goals, and includes detailed course descriptions for all NMR courses.

All freshman or transfer students should be required to meet one-on-one with an advisor during their first quarter. The meeting must include discussion of NMR goals and requirements. This advising requirement would supplement rather than replace existing freshman survey courses (see below) and advising during orientation. One means of encouraging students to satisfy the advising requirement would be to tie it to priority scheduling for a subsequent quarter.

- All advisors should be required to take a general education clinic as a condition for gaining approval to use the MARX system.

- A “general education refresher” should be built into the annual advisors conference.
- There should be an expectation that general education goals and requirements will be discussed in all departmental GTA and new faculty workshops.
- There should be an expectation that NMR course syllabi will include a statement on the appropriate NMR category and its rationale, explaining how the course satisfies NMR criteria. Review of syllabi should occur during the rolling review of NMR categories (see section 8.3 above).
- An SEI-type instrument should be implemented to evaluate the effectiveness of NMR courses in meeting their goals. This instrument would include course information but *not* instructor information, and would be administered to students from each NMR course every quarter (see section 8.3 above).
- The freshman survey course should be reviewed and its efficacy assessed.

Justification: Throughout our interviews with University constituencies we heard that the goals of the GEC are not being clearly articulated to students. In a review of GEC syllabi, we found that they rarely even acknowledge that they are GEC courses, let alone explain how they fit into the GEC structure or satisfy GEC criteria. (In a sample of 75 syllabi, only 15 even mention the fact that they satisfy GEC requirements, while only five actually cite the relevant GEC criteria; one syllabus went so far as to specify that the course was intended for majors, in open contradiction of its GEC status, while another implied that it was intended for specific minors or concentrations within the major.) Without some understanding of what GEC courses are designed to do, how they differ from courses in the major, and how they cohere with one another, students are less likely to achieve the learning objectives of these courses and of the general education component of their curriculum as a whole.

The advising requirement is intended to ensure that new students receive one-on-one guidance regarding their academic program from a very early stage in their studies. Interviews with students indicated that some did not meet with an advisor until much later in their career and, as a result, felt lost with regard to the courses that they should be taking.

Departments propose general education classes and ultimately are granted the right to teach NMR courses. This implies a *responsibility* at the department level to articulate the goals of the GEC/NMR to students, advisors, and faculty. Colleges, both within and outside of the Colleges of the Arts and Sciences, also have a responsibility to make the goals of general education clear to students, faculty, and advisors.

APPENDICES

Appendix 1: Undergraduate Student Government Survey of Student Attitudes toward the GEC

During Winter Quarter 2005, the Academic Affairs Policy Committee of Undergraduate Student Government (USG) created a survey relevant to the General Education Curriculum (GEC). It was available to all undergraduates throughout the quarter and accessible through the USG website. The survey was filled out by 2,242 students: 807 rank fours, 573 rank threes, 468 rank twos, and 394 rank ones. Each question asked students to agree or disagree on a scale of 1 to 5 or rate the value of a section of the GEC on a scale of 1 to 5.

There were some interesting results. For example, “Writing and Related Skills” and “Quantitative and Logical Skills” were both valued above a 4 (5 being most valuable) across ranks, with the former being valued by rank fours above 4.3. “Foreign Language,” on the other hand, was valued across ranks at a 2.6, by far the lowest of all categories.

Furthermore, another question in the survey asked students to agree (5) or disagree (1) with the following statement: “I understand the reasoning behind the GEC requirements.” The response from students was consistent across ranks, and registered at a 3.8. However, the next question asked students to agree (5) or disagree (1) with this statement: “I believe the current structure of the GEC successfully carries out the reasoning behind the GEC requirements.” The response was again consistent across ranks, but this time registered a full point lower at 2.8.

Appendix 2: Groups Interviewed During Opinion Polling Phase of the Curricular Review Process

1. Members of Alpha Lambda Delta/Phi Eta Sigma Honoraries College of the Arts and Sciences (CAS) Curriculum Committee
2. ASC advising staff
3. ASC Faculty Senate
4. Social and Behavioral Sciences (SBS) faculty
5. English Undergraduate Organization (EUGO)
6. Counselors and the Associate Deans of the College of Biological Sciences.
7. Undergraduate Linguistics organization
8. College of the Arts faculty
9. Advisors and the associate deans of Biology
10. Senior Associate Dean of the College of Food, Agricultural, and Environmental Sciences
11. Faculty in the College of Food, Agricultural, and Environmental Sciences
12. Students from the Fisher College of Business
13. Undergraduate advisors from the Fisher College of Business
14. Undergraduate Program Committee of the Fisher College of Business
15. Students from the College of The Arts
16. Associate deans for curriculum from Engineering, Business, Agriculture, Education, Law, Social Work and Human Ecology, Allied Medicine, Pharmacy, and Nursing
17. USAS advisors
18. Faculty Council
19. Students from a GS 203 class
20. The History Department Committee on Curriculum and Instruction
21. Advisors for the College of Engineering
22. Students from the Engineering Council
23. College of Engineering Committee on Academic Affairs