

To: Faculty Senate Curriculum Council

From: Marsha Puro, Chair, General Education Committee

Re: Review of the General Education Program

Date: May 2, 1994

Please find the report of the General Education Committee attached. It concludes that a major overhaul of our general education program is not indicated at this time but that many questions concerning priorities, values and execution need to be addressed. Our recommendations on those subjects, as well as some fine tuning of our curricular requirements, appear below. Please note that recommendations numbered I to IV do not require Faculty Senate action because they do not involve policy changes; recommendations VII to XIII do require Senate action.

I. We begin by repeating the recommendations of the Undergraduate Program Review on Undergraduate Education, chaired by Professor Charles Thornton and completed in 1988, which have not been acted upon:

- 1) "The Provost, through the Deans, should emphasize the importance of General Education and other introductory courses and make clear that instruction at this level is of high priority to the University."
- 2) "To improve the quality of General Education instruction, the University must change the reward and recognition system for quality instruction."

We add to Thornton's recommendations the following:

- a) The Provost should direct the Deans to demonstrate that the tenets underlying Boyer's notion of the scholarship of teaching have been incorporated into the tenure and promotion rules of each of the schools.
- b) A program of "Visiting Distinguished Professors of General Education" should be established. Funds should come from the EUE fund. Such a program would lend prestige to the enterprise and help to provide an infusion of new ideas. Such visiting faculty should be assigned to departments which have historically used their resources to support general education. They should not be used as a way for a department to avoid exhibiting such commitment.

II. The use of the Faculty Development Fund should be radically redesigned. The major portion of the funds should be set aside to create a program for ongoing, formal faculty development workshops and seminars under the umbrella of a Center for Teaching Excellence. Emphasis should be on developing teaching skills in the areas of writing, critical reading and thinking, information acquisition and multicultural sensitivity. In addition, cooperative, innovative cross disciplinary approaches to general education should be stressed. This should not be construed as excluding the professional schools from the use of these funds; teaching improvement in the areas listed is of potential interest to all faculty and the recommendation should be interpreted in that light.

III. At least half of the EUE fund should be set aside for improvements in general education outcomes. The funds should be used to support faculty who are engaged in intellectually proactive, entrepreneurial efforts to improve curriculum. In particular, dollars should be made available for cooperative, cross disciplinary efforts on writing and critical thinking as well as to support expanding programs like the recently begun learning communities. Once again, funds should be available for professional school faculty who are interested in improving their curricula in this regard. In particular, the professional schools should be encouraged to join with their colleagues in the liberal arts to provide IS courses, to address questions of diversity in the classroom and to work on improvements in their students' skills. They should be eligible for EUE funds for such projects under this proposal.

IV. As we and others before us have recommended in reports too numerous to mention, someone should be put in charge of general education immediately; we should not wait for the establishment of a College of Arts and Sciences. The task is too important to postpone and general education should not become the property of the College.

1) Efforts need to be made to continue to include the professional schools in the planning and execution of our general education program. The General Education Committee should continue to have professional school representatives and should continue to be thought of as a committee of the Faculty, not a committee of the College.

V. Class sizes in 111's and IS courses should be limited if we are serious about encouraging writing and critical thinking. The issue is one of values and priorities since our general education goals are always the ones we choose to implement with the fewest resources; we cannot hope to realize our stated purposes in 111's and IS with the large classes that currently prevail. The University Planning and Budget Council should devise budgetary procedures to implement such a proposal.

VI. Funds should be set aside to support the IS program properly. Budgets of departments regularly supporting the program should be supplemented with continuing faculty lines and the budgets of non-participating departments should be closely examined. In addition, the professional school should be required by the Provost to join with their colleagues in the liberal arts to design and staff interdisciplinary courses; non-participating schools should experience the same budgetary scrutiny stated in the previous sentence. The University Planning and Budget Council should recommend means for implementing this proposal.

Curricular recommendations

We need to strengthen our instruction in writing and critical reading and thinking; this is one of the few things on which we found the faculty to be virtually unanimous.

VII. The Curriculum Council should charge the General Education Committee to design a real writing across the curriculum program and report out its recommendations before the end of the 1994-95 academic year. All students should be required to take some number of writing intensive courses before graduating. Writing intensive courses should be strictly defined so that

we are assured of quality control. At a minimum, such courses should give students assignments which involve out of class writing, which allow opportunities for revision and which constitute a substantial portion of the courses' graded activities. Courses designated as writing intensive should have enrollments of no more than thirty.

- 1) Some of the funds we recommend for faculty development efforts should be used here so that faculty who have little experience with writing across the curriculum techniques can learn to do this properly.
- 2) Funds should be set aside to support departments which offer rigorous courses of this nature. Departments which do so should be rewarded with continuing faculty lines. The University Planning and Budget Council should recommend funding for such a program.
- 3) Classes which are writing intensive should be encouraged in all majors and schools; literacy is not the property of the College of Arts and Sciences.

VIII. We should devise ways to integrate formal instruction in critical reading and thinking throughout the curriculum; it will be difficult, if not impossible, to improve writing skills if our students do not learn to read and think clearly.

1) Faculty development and EUE funds should be used to devise pilot projects, across disciplines and schools, to experiment with ways this can best be accomplished. The proposed Center for Teaching Excellence should be charged with initiating the discussions which will facilitate realization of this goal.

IX. The science and mathematics part of the program should be radically changed. The introductory and advanced designations have never had much meaning in this area; the rules have been bent for science to make the courses fit and intellectual purposes are not being met. We recommend the following:

- 1) The School of Sciences Curriculum Committee should be charged by the Curriculum Council with the responsibility for designing a three semester sequence of science courses for the non-specialist; these courses should emphasize the nature of scientific inquiry and applications of science to modern life. The concerns of all departments offering general education courses in natural sciences should be considered in these discussions. The Curriculum Council should require that the School of Sciences make such recommendations to the GEC by the end of the 1994-95 academic year. These courses should a) involve significant laboratory experiences and b) be a coordinated sequence.
- 2) The natural science 111 courses should be discontinued when the new sequence is put into place. The resources which have gone into 111's should be used to support the new courses. These new courses should not be the old 111's with new names. In particular, they should emphasize the connections among the sciences instead of being the isolated introductions to disciplines that now exist.
- 3) Students whose majors require more specialized science sequences should continue to take the year long sequences in Biology, Chemistry and Physics which are currently in place.
- 4) If we do not have adequate laboratory space to accommodate our students, we should be preparing the capital requests to implement meaningful science instruction now.

X. The computer basic skills course should no longer be required. Computer skills are best learned in conjunction with some real tasks; they should be taught in the disciplines. If students enter the university with no word processing skills, this can be addressed in either English 101 (as it currently is for many students) or in a brief non-credit workshop.

1) The Center for Teaching Excellence should provide faculty with the opportunity to go to formal faculty development workshops on computer techniques and how to teach them.

XI. In place of the computer course, all students should be required to take a course in quantitative reasoning if their majors do not otherwise require them to take a course in mathematics. The Mathematics Department should be charged by the Curriculum Council with designing such a course for the non-specialist and reporting their recommendations to the GEC by the end of the 1993-94 academic year; in so doing, they should be careful to consult with the departments whose students are likely to take this course to insure that student needs will be met. This does not require much in the way of new resources because our research indicates that the overwhelming majority of our students already take at least one math course.

XII. The General Education Committee should be charged by the Curriculum Council with undertaking a meaningful review of the way we execute our IGR requirement; the review should result in recommendations for improvement by the end of the 1994-95 year. There is widespread feeling that this requirement is not providing the meaningful dialogue on diversity questions which it was designed to produce. We need to explore whether there are curricular ways to improve our record in this regard.

1) The Center for Teaching Excellence and EUE funds should be utilized to enhance faculty training on diversity questions and to fund intellectual experimentation in this area.

XIII. Our admissions requirements should be reviewed and strengthened. We are currently admitting students whose ACT scores and reading abilities make it clear that they have no chance to succeed here. We should not admit such students both because it is not fair to them and because it drains resources from programs for students who can succeed. A program of institutional research should be undertaken to determine minimal entry levels needed for success here; students falling below those minima should not be admitted.

XIV. The General Education Committee should be charged by the Curriculum Council with rethinking the definition of “advanced” and “introductory” in our general education program; currently, the courses designated as “advanced” do not need to be in any sense advanced. This is needlessly confusing and seems to indicate that the original purposes of the program have been lost. The GEC should be charged with moving toward a system where students are required to take multiple courses in the same discipline (i.e., some which are introductory and some advanced) to fulfill at least some of their distribution requirements; the committee should be asked to devise its recommendations in this regard by the end of the 1994-95 academic year.

The General Education Committee has spent the last two academic years engaged in a comprehensive review of the General Education program. The review was done in four stages:

1) the literature on general education successes and failures was reviewed; 2) data were gathered on the entry level preparation of our students and on the courses they take to fulfill their general education obligations; 3) meetings were held with representatives of departments which are responsible for the skills portion of the program; 4) meetings were held with the faculty at large, both in their departments and in a campus wide roundtable discussion, to determine the general impression of the effectiveness of the program. In the course of our meetings, we encountered many dedicated faculty who have invested a great deal in their general education courses and in thinking about ways to achieve excellence in the program. They brought many thoughtful criticisms of the program to us. This report contains a summary of the conclusions we drew after long discussions about these meetings with the community.

At the heart of our conclusions is that it does not seem to be appropriate to undertake a major overhaul of the structure of our curriculum at this time. There are some faculty who would like to undertake this task but there are many others who do not believe that it is necessary. We have come to believe that such an effort would be seriously divisive at this time and would divert our attention from more important tasks. In addition, the work of Astin and others indicates that the superstructure of the general education program on America's campuses is less important for learning than is the content and standards utilized in individual courses. We will be using that framework as we make our recommendations below.

Central to the framework is the notion that general education should be conceptualized and evaluated as a set of goals and outcomes, not as a structure or "program." We value general education because it assists our students to write, speak and think clearly. It is central to the curriculum because, regardless of major, our students must learn to appreciate the liberal arts, must come to understand ideas and points of view which they do not encounter in their majors, must comprehend the interconnectedness of knowledge, must learn to be tolerant and responsible citizens of a democracy, and must learn to express themselves clearly when discussing what they know. The foundation for developing these abilities must be laid in what we have traditionally thought of as general education courses but instruction in these capabilities must continue throughout a student's academic career. Our current program insures broad exposure to the liberal arts but it insures none of the other outcomes we desire from general education.

Our faculty were almost unanimously distressed at our students' inability to read, write and think critically; faculty were also concerned about their students' inability to see the relationships among ideas taught in various disciplines. Consequently, we stress throughout this report that our efforts over the next few years must be in strengthening those skills in all phases of our curricula. The goal of strengthening general education cannot be separated from strengthening the baccalaureate degree. That is true whether the student majors in the liberal arts or in a professional discipline; consequently, many of our recommendations involve strengthening some aspects of professional curricula and suggest that the professional schools be required to join the delivery of what has traditionally been considered general education.

The overriding message of this report is that general education has never been a high priority on this campus but its improvement depends upon that ceasing to be so. That means we must use our resources here and not elsewhere if resources are limited. If we are to achieve what we maintain are our goals for our students, resources and rewards must redound to the enterprise.

Faculty who dedicate their careers to improving their teaching and being proactive about curriculum development must be rewarded. Departments which use their limited resources to encourage positive general education outcomes must be rewarded. If we continue to honor these precepts in the breach, there is no purpose to conducting a review like the one we have undertaken. The endless committee reports recommending improvements in general education, which have been filed over the years, will continue to be filed to no avail. Someone has to be put in charge of the enterprise and clear direction must be provided; absent such effort, it is hard to see how change can be effected.

The official answer to these questions has, heretofore, been that a College of Arts and Sciences will solve these problems. We fail to see how this is so. If general education is a campus wide problem, if writing, reading and critical thinking are skills about which all faculty are concerned, if excellence in teaching and developing understanding about relationships among disciplines is a campus wide need, if appreciation of diversity and mutual tolerance affects us all, then improvement of general education goes far beyond the purview of a Dean of Arts and Sciences. We must assure that the important issues we raise are discussed in all schools and involve all of the faculty. Direction for this enterprise must come from the Provost.

Faculty Development and Rewards

Central to improvement of our General Education program is the need for a systematic faculty development effort. Faculty are trained to be specialists in disciplines and, increasingly, that training is not enough for effective classroom performance. If skill instruction is to be integrated into our disciplinary offerings, if more interdisciplinary work is going to be done by our students, if issues like cultural diversity are going to be integrated into our curriculum effectively, faculty members need rigorous training in the appropriate pedagogy. In addition, they need the opportunity to discuss teaching and learning issues with other faculty; such experiences have reenergized faculty in many institutions and have the important side effect of helping to foster community among faculty. These needs cannot be met by one day seminars or two day off campus workshops. We need regular, on-going opportunities for faculty to learn to improve their teaching; the writing across the curriculum workshops, the continuing multidisciplinary critical thinking conversations and the GBA 300 faculty teaching discussions are models upon which we can build but **continuing resources must be set aside for faculty development efforts of this sort and faculty must be encouraged to participate.**

These resources should take two forms. First, **a Center for Teaching Excellence should be established. Its role should be to plan and deliver a program of ongoing workshops and seminars for faculty who wish to improve their teaching. Second, the EUE program should be redirected for these purposes.** Currently, there is no source of funds for faculty who wish to engage in entrepreneurial, cooperative activities to improve curricula and teaching. Proposals for EUE funds which have this developmental approach and spirit, especially those aimed at improving general education and those from faculty who wish to engage in conversations with colleagues in order to devise strategies for curricular innovation across disciplines, have uniformly been rejected. The President should direct that a substantial proportion of the EUE funds should be set aside for these purposes and a call for proposals for entrepreneurial, intellectually proactive proposals should be issued.

Faculty must come to feel that their investment in teaching, and in general education teaching in particular, is going to be valued by the institution. As we visited with faculty across the campus, we were regularly told that rewards, in the form of tenure and promotion, do not accrue to those who dedicate themselves to teaching; learning new teaching techniques, developing new curricula, attending faculty development events, developing strategies for addressing diversity issues, meeting the needs of the student who is not a specialist in one's discipline are not particularly valued enterprises. Despite our protestations to the contrary, faculty engaged in these behaviors believe their chairs and deans care only about program needs and about disciplinary research efforts. Our faculty are being encouraged by their reward structure to be narrower and narrower specialists at a time when our classroom efforts require precisely the opposite emphasis. **The GEC strongly recommends, therefore, that the tenets underlying Boyer's scholarship of teaching notion be adopted by the University and that the Provost direct the deans to find ways to demonstrate that this has been done in each of the schools.** Absent this campus wide effort, none of the problems we have identified is likely to be addressed.

Content of the General Education Program

Currently, the program is divided into two segments: skills and distribution. We will discuss these in turn.

Skills:

There is a widespread sense that, for multiple reasons, the skills portion of our program is not working very well. Students who emerge from our freshmen English, speech, critical thinking and mathematics courses do not seem to have the level of skills the faculty would like them to have. Our students often do not have good reading and writing skills, they do not think well, they cannot make coherent public presentations and they cannot reason mathematically when we encounter them in upper level courses. We have to ask why this is so.

To begin with, our students continue to come to us with weaker and weaker skills. Increasing numbers do not meet our entry requirements and must do developmental work of some kind. Many do not read beyond junior high school level; many cannot write a coherent paragraph. Others have not achieved university level skills but their deficiencies are not as great.

In addition, most of our students have not learned how to study. Their work habits are poor and their work ethic is worse. Their high schools have not taught them to expect to have to work outside of class time; those same schools have taught them that, by and large, standards will be weak and not enforced. Paradoxically, surveys indicate that these students believe themselves well prepared to enter college, believe that they are good students and see themselves as headed for graduate school. Thus, they do not have the skills to succeed and they do not know it. It becomes our job, then, to change both their capabilities and their attitudes.

Our general education courses must teach both subject matter and behavior. These courses must be the rigorous academic experiences upon which the rest of a student's intellectual development can rest. If students pass through their general education with the same sloppy habits they had in

high school, we have clearly failed them. Astin's study concludes that the structure of general education programs is less important for the student success than is the rigor with which the courses are taught. **We recommend, therefore, that we examine our standards and take steps to insure that they are appropriate for university level courses.** If our students need help learning how to perform appropriately, we should provide that help. As is the case with many of the recommendations contained in this report, doing this properly entails a major faculty development effort.

In designing an approach to teaching skills, the first question we must ask is "Is it possible to reach all of the students we now admit?" While the data which are currently available do not address this question directly, there is a growing sense that we are admitting students whose needs we cannot possibly meet. Students who read at a seventh grade level, whose ACT scores are 10 or 11, who cannot compose a coherent paragraph, who cannot do elementary school arithmetic, do not belong at a university. The act of admitting them creates false hopes and is certainly ethically questionable. In addition, when we admit students whose skills are so weak that we are unable to help them, we stretch our resources to the point that students who we could help are not reached. The net effect is that we admit more students than we should but we salvage fewer than we could. **Our next recommendation, therefore, is that a rigorous program of institutional research be undertaken to determine the minimal skill levels necessary for success at SIUE; students who do not exhibit those levels of skill should not be admitted.**

Second, we need to acknowledge that, because of the lax standards they encounter before coming to us, most of our students do not have the entry level competence that was common ten or fifteen years ago. Our students come to us knowing less than ever before. We conclude that if it were ever true that one or two freshman level courses in writing and critical thinking were enough to provide an adequate foundation for upper level work, this approach is no longer adequate. It is true that rigorous courses and high standards in English and Philosophy are necessary but these departments cannot possibly do the job alone. We acknowledged this formally when we instituted a writing requirement in our 111 courses but our investigations indicate the this requirement tends to be honored in the breach because 1) classes are too large, 2) faculty do not feel competent to teach writing in their disciplines and 3) many faculty are assigned to teach 111 but are unsympathetic with the approach.

We believe that each of the skills we teach must be better integrated into the program at large. English, critical thinking, speech, mathematics and computer skills are not learned well when they are, in effect, disembodied. They must be anchored in the student's intellectual life by repeated emphasis in multiple courses; we must find ways to write across the curriculum, speak across the curriculum, compute across the curriculum and, especially, think across the curriculum. Faculty in English, particularly, ask what the point to rigorous freshman writing standards is if students are never again asked to write, or are never held to meaningful standards when they do write, in the remainder of their university careers. We must endorse that position. Our curriculum needs to be built less around isolated disciplinary concerns and more around cooperative, cross-disciplinary, cumulative efforts to develop student competencies. This does not require major changes in curricular structure; it does, however, entail full faculty cooperation across disciplines in order to accomplish multidimensional goals. The recently approved

experiment in learning communities is one potential way to address this need. However, if we are to realize this goal of courses designed for multiple purposes, many courses will have to be overhauled and most faculty will have to become adept at teaching things they do not now teach. We will all have to be cognizant of pedagogy in writing, speech and critical thinking. This means a major faculty development effort needs to be undertaken. As we noted at the outset, attempts to permeate the curriculum with attention to these issues should not be restricted to general education courses and faculty; this must reach all departments and all faculty.

We believe that we must pay close attention to instruction in writing. Such instruction, if done properly, also includes emphasis upon critical reading and thinking as well. The English Department's recent proposal to link Freshman Writing to theme based courses should help in this regard but much more is needed. We recommend that **1) the size of the 111's should be limited to allow meaningful writing instruction and 2) a formal writing across the curriculum program should be instituted.** The Curriculum Council should instruct the General Education Committee to design a program which would ensure that each student enrolls in three writing intensive courses, over and above English 101-102 and the 111 courses, before graduating; the GEC should be required to produce such a plan by the end of the 1994-95 academic year.

We need to think about the inconsistencies we exhibit on the subject of mathematical competence. There are times when we seem to think of mathematics as a skill like reading and writing; we do not permit traditional freshmen with inadequate mathematical competence to escape developmental work and we often talk about math as the same kind of building block that literacy is. However, we do not currently require that students achieve a skill level beyond that which they should have achieved in high school. We do not believe that is adequate; **we recommend, therefore, that every student be required to take at least one course in mathematics at the university level.** We then need to ask if the necessary level of mathematical knowledge can be achieved by the efforts of the Mathematics Department alone or if a wider, more integrated approach is necessary here as well.

We encountered widespread disagreement on the best way to approach computer instruction but there was very little support for the way we are doing it now. After examining the literature and giving this much thought, we do not believe that a free-standing course, which emphasizes instruction in software packages whose utility students understand imperfectly at best, is a defensible use of resources. All students require instruction in word processing. This can be accomplished in English courses or, for the fewer and fewer students who do not already have some word processing experience in high school, in brief non-credit workshops taught through Instruction Services. The other computer skills required by students vary widely; they depend upon the majors and interests of students and are best taught in the disciplines. Both software and the purposes to which identical packages are put differ by discipline; hardware differs as well. There is no way to make students understand these differences and purposes out of context of the problems they will need to solve. Consequently, **we recommend that the computer skills course no longer be required and that responsibility for computer instruction be transferred to the major.** This, of course, is already happening in many areas but to be done most effectively it will also require a major faculty development effort.

Distribution:

We encountered a fair amount of evidence that the original intent of our general education program has been lost or was only imperfectly understood at the outset. This is particularly true when the following three issues are examined: 1) the distinction between “introductory” and “advanced” courses; 2) the purpose of the 111 courses; 3) the purpose of the interdisciplinary course requirement. In addition, there are places where the original intent has apparently not worked out very well, once implemented. We now turn to these issues in turn.

The most common response we received from faculty when we discussed the general education program was this it is too complicated. Few faculty can keep track of the requirements and fewer still can articulate their purpose. Everyone knows that students have to spread their credit hours around but, beyond that, everything else is murky. For example, virtually no one likes the “introductory” and “advanced” distinctions since most “advanced” courses are not advanced in any real sense. The original intent of the program seemed to be to get students to take multiple courses in the same discipline in order to avoid a superficial, smorgasbord approach to course selection. If that was the intent, that is certainly not the reality since the implementation of the idea has been set aside. The reality of the situation is students can take one of this and one of that; the introductory and advanced designations are misleading and make the program indecipherable. **If we want students to develop an area of mini-expertise which is unrelated to the major, we need to recast the requirements to assure that; the GEC believes this should be done. If that is not the intent, then the introductory and advanced designations should be removed and students should simply be required to take four courses in each general education area. Something has to happen to make the structure make sense to students and faculty alike.**

There is widespread confusion about the purpose of the 111 courses. In their original conception, they were designed to introduce students to modes of inquiry and were supposed to use written exercises as a central element of instruction. As noted above, the writing element has been wholly lost in some departments and partially lost in others. No one, except the Philosophy Department, remembers that the central focus of these courses is supposed to be on modes of inquiry. Instead, they are almost uniformly survey introductions to the subject matter of the disciplines and questions concerning “ways of knowing” are ignored. When questioned about this, faculty in these courses seem genuinely surprised since our institutional memory has lost the purpose of these courses. **If the original purpose of the 111 courses is to be restored, and the GEC believes it should be, we need campus wide discussions on how to best effect this change and we need opportunities for faculty development to facilitate the effort. In addition, if either of the original purposes is to be realized, class sizes must be limited in these courses. Epistemological explorations and repetitive, out of class writing assignments will not be done well in classes of seventy or a hundred or more. The GEC should be given the authority to review the syllabi of 111 courses annually; if the courses do not fulfill their intended purposes, no general education credit should be granted for them.**

Another set of ongoing problems concerns the interdisciplinary courses. Here, too, the original conception of the requirement often seems to have been lost. Instead of providing students with multiple ways to think about a problem, many of the courses seem to entail nothing more than

alternating faculty providing facts of interest from that individual's perspective. The idea that interdisciplinary courses are about different ways of knowing is ignored in this case just as it is in the 111 courses. We need to reexamine the intellectual purposes of the requirement and find an oversight mechanism which ensures that these purposes are not lost over time. The Curriculum Council should decide if that oversight mechanism is to be the Deans or a committee of the faculty.

Another problem in this area is the inadequate number of interdisciplinary courses available. Many of the faculty who taught the original interdisciplinary courses have retired and have not been replaced by younger colleagues. Many faculty report that they are discouraged by their chairs when they ask to teach an interdisciplinary course because disciplinary needs are thought to take precedence. Other faculty would like to develop new interdisciplinary courses but feel the need to engage in faculty development activities to enable them to do the work; in addition, some find it difficult to identify colleagues in other departments who share their interests. There is a widespread sense that resources to support the program are absent. Some departments carry an undue portion of the load while other departments refuse to contribute at all. Departments which choose to emphasize only their major programs do not seem to pay any price for their failure to join in this community effort and, therefore, those who carry the burden are increasingly resentful of their inability to gain institutional recognition for their efforts. **The GEC recommends that funds be set aside to support the program properly, that the budgets of departments regularly supporting the program be supplemented and that the budgets of those refusing to cooperate be diminished. In addition, the professional school should be required by the Provost to join with their colleagues in the liberal arts to offer interdisciplinary programs.** We have a successful model for this in the GBA 300 course; faculty development activities could be designed for faculty in other professional schools who wish to learn about that prototype.

There is evidence that diversity issues are not being handled well on the campus. The current IGR requirement was imposed on the University by the State Legislature and did not receive the campus wide consideration that our other requirements did. The GEC believes that the list of courses now used to fulfill the requirement treat diversity issues unevenly at best. In addition, there are many faculty who would like to address diversity themes in many other classes but are afraid that they do not have the skills to handle the potentially difficult class discussions that could result. Consequently, **the Curriculum Council should charge the GEC with reexamining the IGR requirement to determine if there are more effective curricular means for handling diversity issues; the GEC should report its conclusions on this matter by the end of the 1994-95 academic year. In addition, the Center for Teaching Excellence should begin a training program which would assist faculty who wish to improve their handling of diversity issues in the classroom.**

There are special problems with course offerings in the sciences. They have never really fit the introductory and advanced model very well and, subsequently, have had the rules bent and modified for them. In particular, our rule that a course must count for the major to be used as a general education course seems especially troublesome in the sciences. Most of the major appropriate courses in the sciences are too specialized for the non-major. The purpose of general education in this area, we believe, is to insure understanding of scientific method and to apply

that method to real world problems. Moreover, national experience indicates that hands on experience of some sort facilitates this learning in the non-specialist. Our curriculum, however, subjects most non-specialists to specialized lectures and provides no laboratory experience. The widespread faculty dissatisfaction with this approach can be seen by the fact that the Schools of Business, Nursing, Engineering, and Education all require that their students go beyond the university minima and take laboratory science. The problem this creates is that we have not planned for this course demand and we do not have the necessary lab spaces. **If we believe that students should go into the laboratory, we should be planning the capital requests that would allow this to happen.**

In addition, the science general education curriculum needs to be reformulated. The needs of the generalist must be met. Universities all over the country have found ways to combine the interests of scientists in various departments to create exciting and useful science courses for the non-scientist. Everything one reads about science speaks to the artificial nature of disciplinary boundaries and states that the future lies in cross-disciplinary teaching and learning. If that is true, our curriculum is firmly rooted in the past and our students are not being well served. Even if we choose not to alter our curricular structure radically, the science offerings have to be overhauled so that they meet the needs of our students. **The GEC recommends, therefore, that the curriculum Council direct the School of Sciences Curriculum Committee to devise a new general education science sequence for the non-specialist; a report by the end of the 1994-95 academic year should be required.**