DATE: May 12, 1983
TO: Members of UM Faculty Senate
FROM: General Education Committee
RE: Attached Proposal for a General Education Program at UM

This program has been reviewed and endorsed unanimously by ASCRC and comes as a seconded motion to the Senate. The General Education Committee and ASCRC request that Faculty Senate approve the general education structure and procedure as described in this document and that the Senate instruct the two committees to proceed with its implementation.

The GEC believes that this program strengthens our academic standards and provides a basis for continuing development. The program mandates a level of mathematical maturity, increased levels of performance in written communication, laboratory study in at least one of the sciences, the study of foreign cultures, and offers each student the option of studying either symbolic or foreign languages. The program maintains a distribution requirement but focuses the traditional areas so that students must become acquainted with modes of thought and learning they may have previously avoided. It provides a mechanism for evaluating courses and limiting the number of courses that can satisfy the requirements. It identifies lacunae in present curricular offerings and encourages interdisciplinary ventures, particularly in the development of courses which encourage students to integrate the insights gained during their studies.

This general education program incorporates recommendations made by a number of respondents to the first GEC discussion proposal distributed to all faculty senators and department and program liaison persons in late February. The most important of these modifications are the establishment of a Foreign Language/Symbolic Language option as part of the “University Competency Requirements” (Part One) and the addition of an “Ethical and Human Values Perspective” in the Breadth Requirements (Part Two).

Looking ahead, the GEC has established the following implementation sequence and procedures to be followed upon Senate approval of this program:

During the summer of 83:
Members of the General Education Committee, in cooperation with ASCRC, will:
1. Establish a timetable, with instructions, for departments and programs to revise major and minor requirements, cognate requirements, and their own distribution requirements.
2. Prepare estimates of the instructional, administrative, and capital consequences of implementation of the GE program.
3. Prepare criteria, solicit participation, and establish the courses for competency in oral communication, computer “literacy”, and health.
4. Write a package which presents the rationale for a general education program, the experience of other institutions, and the essential components of the General Education Program for use by the general public and prospective students.
5. Prepare, for Senate consideration in the Fall, sets of rules and procedures needed to apply the GE program in cases of transfer students, interrupted registration, and placement and challenge examinations.

6. Devise means of promoting and establishing the "capstone" and ethics courses.

Note: Three UM faculty members and one administrator will be attending the Lilly Workshop on the Liberal Arts June 19 - July 6 with teams from twenty-four other colleges and universities. UM's participation in this workshop should greatly facilitate the acquisition of basic information concerning general education efforts and programs at other campuses and facilitate the summer work on this program.

Late September 1983:
ASCRC invites Departments and Programs to propose courses for inclusion in the Breadth perspectives. (According to the timetable and guidelines developed in the summer). ASCRC invites Departments and Programs to identify the "W" courses to meet writing skills.

Mid-November:
ASCRC begins to evaluate, using the criteria published, the courses proposed for inclusion in the breadth perspectives, the writing requirements, the capstone courses, and the competency requirements.

ASCRC identifies gaps in the general education offerings, invites and evaluates remedies.

ASCRC re-evaluates rejected proposals that were revised and re-submitted by departments.

According to the calendar devised in the summer (probably mid-February):
ASCRC reviews Department and Program catalog copy for compatibility between the general education requirements offerings and the major, minor, or cognate field requirements.

For the April 1984 Senate meeting:
ASCRC will offer the following:
A timetable for the implementation of general education requirements;
Instructions for satisfying the basic competencies requirements;
A list of the courses to be identified as "W";
A list of the courses available for satisfaction of the breadth requirements;
A list of the courses designated as meeting the "capstone" concept; and
A reviewed catalog copy containing Department and Program requirements.

Continuing tasks:
Periodic revision of all lists and requirements (sugg. every four years).
Solicitation and review of proposals for addition or deletion of courses in the breadth requirements. (A new list each Fall?)
Find ways to stimulate courses suitable for the "capstone" requirement.
Maintain vigilance over and stimulate improvement in the levels of the competencies requirements offerings.
Seek out means of improving the whole program of general education.
1. Writing Skills:

Part One: Students must receive a high (exempt) score on the English writing placement examination given each student upon first admission to the University, score above the 90th percentile on the English section of the ACT tests, or complete English 110 (College Composition) or some equivalent course in another department approved by ASCRC with a grade of "C" or better.

Part Two: Completion of at least three courses of three or more credits which include a substantial writing component (designated by a "W" suffix in the Schedule of Classes). At least three of the credits earned must be at the upper-division level. Students may select these courses from among those also approved for distributed credit if they wish. Courses in the student's major with a substantial writing component may also satisfy this requirement.

"W" courses are those in which standards of writing are included in the course content and in the grade given the student. Essay examinations, written reports, research papers or other written material—all commented on in writing by the professor well before the end of the course—should be required in all "W" courses.

Committee Explanation: The GEC believes that the ability to write clearly is a fundamental academic skill best maintained by continuous practice throughout one's career and should, therefore, be an integral component of subjects throughout the curriculum. The GEC recommendation would enable those already possessing superior writing skills at the time of first enrollment to by-pass the traditional first-year writing course by examination, would assure that all students not possessing such a skill level take a course specifically addressing writing skill competency early in their UM studies, and would make it necessary to do at least some writing in discipline-oriented courses at both the lower- and the upper-division levels. Finally, the GEC hopes that this requirement will encourage more departments to demand substantial written work of their students, perhaps by developing additional discipline-oriented courses with a substantial writing component. (Possible examples of such courses presently offered at UM include Chem 334, Zool 370, BAd 300, History 300 and others).

2. Mathematics: Students must complete a college level mathematics course above math 100 other than 101 and 102.

Committee Explanation: The suggested minimum level of mathematical competency is essential if our students are to be able to explore a full range of courses and career possibilities during their years of formal academic study and if they are to continue to learn and to be able to adapt successfully to new and unforeseen circumstances in later life.
The GEC advises the faculty that, for most UM students, this requirement is far more challenging than it may appear. For example, 75% of the 1041 students taking the regular mathematics placement exam during Summer-Autumn 1981 placed at Intermediate Algebra (Math 100) or below. 8.5% of the students taking this test placed in Arithmetic (Math 001) which 40% failed. The GEC is alarmed by these statistics. The Committee believes that a basic mathematical competency should be common to all educated individuals. All graduates should have demonstrated competence in this area through successful performance in a university-level mathematics course.

Finally, the GEC notes that the adoption of these minimum requirements will have a positive effect in the secondary school system and will reinforce the drive for better preparation of the college-bound student in this important skill prior to his admission to UM. The GEC notes that some entering students are presently placing above the suggested requirement and feels that formal requirements could lead to further improvement in this area, thus reducing the need for an extensive math remediation program on this campus.

3. FOREIGN LANGUAGES/SYMBOLIC LANGUAGES

All students must satisfy one of these options:

- Complete the equivalent of one year of university-level foreign language study by completing the third-quarter course (103) or by examination.
- Complete a three-quarter sequence in Computer Sciences, Linguistics, Philosophy (Logic) or Mathematics.

Committee Explanation: The GEC believes that a well-educated person should be well grounded in foreign languages and in symbolic languages and that they are not interchangeable components in an educational curriculum. Thus, the GEC discussion proposal distributed in late February to faculty liaison persons and to all faculty senators included a recommendation that all UM students take one year of a foreign language as well as additional study of the symbolic languages beyond the basic mathematical skills level. This recommendation received a strong and very polarized response. Some respondents felt that courses in symbolic languages should not be required as distribution courses in addition to the basic mathematical competency requirement. Some groups favored a two-year foreign language requirement, others approved the GEC's one-year recommendation and other units preferred that each student be offered an option. The present recommendation is an effort to achieve a reconciliation of these divergent views and also recognizes the diverse backgrounds and interests of a heterogenous student body.

Students choosing a symbolic language sequence will be able to further develop their mathematical or logical skills beyond the level required by the minimum university competency requirement in mathematics. The requirement that students choose a coherent, articulated sequence of courses under the Symbolic Languages
option is based on the belief that a series of integrated courses offers the best opportunity of furthering the development of mathematical and logical skills which is the goal of this option. Those students choosing the foreign language option will be taking an important first step toward achieving an enhanced awareness of cultures other than their own and acquiring the ability to communicate in another language. After one year of language study, students choosing this option will be able to decide for themselves whether or not they wish to continue their language study. Finally, those departments and programs of the College of Arts and Sciences and professional schools believing further language study to be desirable should build upon this established base by requiring additional language study of their majors.
PART TWO: BREADTH REQUIREMENTS

COMMITTEE EXPLANATION AND INTENT:

The GEC recommends the adoption of the following breadth requirements for the purpose of exposing all students to the primary approaches to knowledge and thus providing students with as many ways of viewing the world as possible. The proposal to create six divisions instead of the current three, and to require that students take courses in each of the six, represents our judgement concerning the modes of thought to which students should be exposed in the course of earning a baccalaureate degree. We believe that the present trifold division results in a relatively unrefined grouping of courses and permits students to avoid certain paradigms of learning that are essential to a well-rounded general education. The Committee does not claim that its six-part division is the only one that could be conceived; we claim, however, that the present division into three cruder categories is inadequate.

The GEC has chosen the term "Perspectives" as a convenient word for describing the categories it is proposing.

General Procedures and Criteria: Departments, programs and individual faculty may propose courses to the ASCRC for selection according to specific criteria established for each of the distribution perspectives. All courses proposed must also meet the following general criteria:

1. No department or program may propose a total of more than ten courses as general education courses. This limitation does not apply to inter- or intra-disciplinary courses which will be reviewed for listing on an ad-hoc basis. Some departments or programs may have fewer than the maximum of ten.

2. Courses with a series of prerequisites, which are remedial, or designed primarily for majors or for professional training will normally be excluded.

3. Courses should be so designed that they are not primarily introductions to the specialized methodology of a discipline.

4. As appropriate, courses used to satisfy the breadth requirements should exercise and continue to develop the students' proficiencies in writing, mathematics and oral expression.

5. Students must choose from more than one department or program to meet the breadth requirements in each area.

6. Courses taken to meet major and minor requirements may also satisfy distribution requirements within the appropriate perspectives.

7. Courses must be three or more credits. Courses should be offered frequently and on a regular basis.

8. All approved courses will be reviewed and submitted for Senate approval every four years.
The following statements describe the intent, justification and criteria for each of the perspectives components of the breadth requirement:

1. THE PERSPECTIVE OF THE EXPRESSIVE ARTS.

Requirement: Pass two courses in this perspective. An intensive workshop or other equivalent experience is acceptable.

Argument: The courses in this group develop and refine different skills of expression. Even though communication in our society is unusually well developed in a technical sense, reliance on commercial media and professional entertainments has left us with the paradox of marginally functional capacity in this area. We believe that much creative potential among students is untapped and unstimulated. Participation, even at the minimal level of this requirement, permits development of the basis for appreciation and critical evaluation of the expressive arts.

Criteria: a) The courses or experiences approved for this perspective must enhance the individual's control of the skills essential to continued development of performance in the art.

b) They must also seek to establish a basis for conceptual understanding of the development of standards of performance in either the musical, visual, literary, or dramatic arts.

c) The specific crafts and skills of the art should be related to the broad range of social and cultural experiences represented.

2. THE PERSPECTIVE OF LITERARY AND ARTISTIC STUDIES

Requirement: Pass two courses in this perspective.

Argument: These courses introduce students to major works of literary and artistic creation. Intended primarily to convey the strengths of our own cultural past, these courses should also develop and refine skills in reading and analysis. Deepened appreciation for and understanding of important classics is one of the traditional expectations of a liberal education.

Criteria: a) Courses must explicitly include coverage of the functions of art and of the many ways in which human experience may be given expression. Historical or developmental context for the major work(s) to be studied must be included.

b) The design of the course must include exploration of aesthetic values and discussion of beauty, form, style and meaning.

c) Some attempt to enhance the critical abilities should be an integral part of the course.
3. THE PERSPECTIVE OF HISTORICAL AND CULTURAL STUDIES

Requirement: Pass three courses, at least one with a Western and one with a non-Western perspective.

Argument: Collectively, these courses enhance and strengthen a sense of cultural identity and personal position in time, place and society. An understanding of the importance of the cumulative nature of cultural heritage, when combined with some sense of the dynamics of cultural change or development, facilitates the ability to think about one's beliefs, behavior and current events with some objective detachment.

Criteria: To fulfill the expectations of the above argument, the courses chosen to represent this perspective must: 1) Afford a substantial exposure to the History of Civilization. 2) Examine cultural development and differentiation in the global human past. 3) Analyse the origins, diffusions and developmental changes of some significant ideas. 4) Present the historical context in which ideas can be illuminated.

Preference ought to be given to those courses which examine the continuity of cultural development within the dynamic context of social influences.

4. SOCIAL SCIENCE PERSPECTIVE

Requirement: Pass two courses in this perspective.

Argument: Courses in this perspective introduce students to the analyses of the institutional structures and the systematic functioning of contemporary societies. By exposure to courses in this area, it is hoped that students would become aware of the complex interdependencies that shape the realities of local as well as international issues.

Criteria: a) Courses must present the kinds of analytic methods generally accepted in the social sciences. Both quantitative and qualitative comparisons of social data are expected. Courses must consider both ethical and reliability questions related to data collection methods.

b) Courses which bring the scientific study of society and social behavior to bear on the analysis of social problems should be included. Considerable attention should be given to the ways in which conclusions and generalizations are developed and found acceptable.

c) Courses in this perspective should be those that emphasize the systematic approaches in preference to the developmental historic viewpoint. (The latter may be proposed to the historical cultural perspective).
5. THE PERSPECTIVE OF ETHICAL AND HUMAN VALUES

Requirement: Two courses passed.

Argument: These courses introduce students to important matters of moral and political choice and value. They are intended to enlarge and sharpen students' understanding of the complexity of human values and to deepen their appreciation of the forms of analysis which elaborate and guide choices.

Additional Committee Explanation: The GEC concurs with opinions expressed at its meeting with program and unit liaison people concerning the need to develop students' ability to comprehend moral and ethical issues. All students will be directly involved throughout their lives in decisions that express ethical values. They must learn how to reason clearly about those values and must achieve a heightened awareness of the values which govern their personal decisions.

Criteria: a) Courses must attempt to make the student understand the recurrent nature of moral problems and the applicability of ethical criteria to problems of the past, present and future.

b) Courses must also relate the ethical questions posed by the works studied to the analysis of values as they arise in ordinary personal, political and social experience.

c) Courses which emphasize the analysis of current problems should be related to systematic writings of ethical, political, and social theorists.

6. THE PERSPECTIVE OF THE NATURAL SCIENCES

Requirement: Students must pass a minimum of three courses in the natural sciences. One course must include a laboratory experience.

Argument: Much of the power of our culture, the pervasiveness of its technologies, as well as its economic and political future has been built upon a world view developed by science. An understanding of the principles and the concepts by which science examines the natural world, arrives at conclusions, and validates them, is an essential element of a liberal education.

Criteria: a) Courses must be primarily about how the natural world works.

b) Besides presenting scientific conclusions about the structure and functioning of the natural world, courses must demonstrate or exemplify scientific questioning and validation of findings.
PART THREE: INTEGRATING OR CAPSTONE COURSES

**Requirement:** Satisfactory completion during the senior year of one course designated as being integrative.

**Argument:** The GEC recommends the identification and development of additional non-traditional courses which would integrate the insights of two or more normally separate perspectives within a structure requiring the student to perform or produce. The products could be shows, writings, debates, legislation, teachings, panel discussions, plans, policy statements or presentations before a student branch of a professional society. Although at first glance this final requirement may seem to be just one more hurdle to be cleared prior to graduation, these final integrative courses could become important personal milestones and could contribute substantially to the academic spirit of this university. State institutions such as UM rarely develop alumni who display intellectual allegiance to their alma mater. Final student memories should include an experience that might produce statements such as "They forced me to put it all together," or "I finally wrote something worthwhile," or "My major in geology finally made sense in the context of that course in history and energy policy."

**Criteria:** These courses should not be a diluted review or general survey of some professional major nor should they be perceived as a type of mechanical "exit exam" by students and faculty. Capstone courses should provide an interdisciplinary approach to a given topic in which students experience the use of synthesis as a means of understanding how diverse ideas, methodologies, and events may interrelate to yield broader viewpoints or perspectives on a common topic or problem. Ideally, they should be truly interdisciplinary, drawing upon the best talent the University can muster. The faculty must consider these final "Capstone" courses to be an opportunity to perform, a personal challenge, and an opportunity for them, too, to attempt to integrate their individual searches for knowledge and meaning within a larger context.
Additional General Education Committee Recommendations and Comments for future consideration by ASCRC, interested faculty and UM administrators:

Computer Skills: It is neither essential nor advisable that every educated citizen be able to use, program or control computers. But, since it is evident that the use of computers and related devices is an increasingly pervasive component of industrial economies and large governments, it is important that citizens be prepared to cope with and be able to participate in the management of the "cybernetic society". This preparation will be especially important if certain traditional values are to be maintained.

The GEC asks for the development of a fundamental course about computers and their management to be required of all students during their first two years at this university. The GEC also suggests that one of the proposed "capstone" courses be developed to address on a more advanced technical, sociological, and political level the broader issues of relationship in "Technology and Society".

The first course, to be phased in as a University Competency requirement would draw primarily from the admittedly overburdened resources of the Computer Science Department, but could conceivably be augmented by cooperation with other interested faculty.

The required course must contain the following elements if it is to serve the basic general purposes envisioned.

A. There must be a substantial discussion of the potential changes which the computer technologies could cause to cultural values in political accountability, questions of centralization and participation in economic and social management, systems dependency and traditional civic freedoms. The potentials for abuses of some freedoms, traditions of privacy, mobility and rights of ownership related to control of access and quality of data, programs, proprietary information, and product distribution must be clearly explained.

B. A serious and objective attempt must be made to analyse the utility of computer technologies in education, law and law enforcement, political decision making, environmental management and information development as well as in businesses at many different scales.

C. Realistic and up-to-date assessments should be made of current trends in the development and use of hardware and accessories such as robotics. Characteristics of available and developing software should be assessed in relation to their potential for contribution to economic productivity and administrative efficiency.
D. In order to dispel the mystique of the computer, the course should include some "hands-on" experience. Perhaps some simple exercises in generic programming could be included. The students could be introduced to text retrieval, filing and editing on a word processor. The emphasis should be on the clarification of the potentials of the technologies and the development of awareness of the inherent limitations.

E. Some emphasis needs to be placed on evaluation of the quality of computer usage. Students ought to learn to discriminate among trivial uses, cost-effective applications, and potentially unethical or intellectually unsound manipulations of data.

Oral Communication: Competency in oral communication is one of the attributes of an educated person. It is one of the prerequisites to full participation in a complex and democratic society. The GEC recommends the development of a means of evaluating performance in oral expression of all entering students. Those students not exempted by high performance on the initial examination must pass a course designated by ASCRC as meeting the intent of the requirement. Such courses could include formal courses in speech as well as discipline-oriented courses and seminars requiring individual oral presentations. As in all other university competency requirement courses, the student should have the opportunity of registering in courses taught by experienced faculty.

Personal Health: The GEC reiterates its belief that the rational understanding of health, and use of good health practices, is no less important to the individual than a knowledge of, for example, English or mathematics. The GEC again urges the faculty to consider the development of a new required interdisciplinary course, staffed by faculty from several departments, which would include segments on genetics and human biology, nutrition and diet, behavior and lifestyle, environment, and medical care. Personal competency in the area of preventive health care is a generally neglected area of basic knowledge which should be common to all citizens and merits consideration as a basic component of a coherent general education program. This need is not, as some respondents have affirmed, adequately addressed in the students' high school curriculum.