

**SPECIAL REPORT**  
**of the**  
**RULES COMMITTEE**  
**concerning**  
**THE UNDERGRADUATE GENERAL EDUCATION**  
**REQUIREMENT Revised May 10, 2001**  
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**Presented at the**  
**638<sup>th</sup> Regular Meeting of the Faculty Senate**  
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**COMMITTEE MEMBERSHIP**

**Marilyn Billings**  
**Richard Bogartz, Chair**  
**Julie Brigham-Grette**  
**Seshu Desu**  
**M. Christine King**  
**Arthur Kinney**  
**Ernest May**  
**W. Brian O'Connor**  
**Robert Wilson**

## PHILOSOPHY AND GENERAL REQUIREMENTS

### I. GENERAL EDUCATION: INTRODUCTORY STATEMENT

The goals of a General Education curriculum for college students in this century have been the subject of extensive discussion. Modest proposals in faculty meetings and imposing statements by prestigious foundations all reflect a desire to know what the "common learning" should be and how that learning should best be imparted.

The Faculty Senate recognizes that students come to this campus with diverse backgrounds and interests. We also are aware that no firm consensus exists on what a well-educated person should know. Finally, we recognize that the state of human knowledge perpetually evolves. While these facts make it difficult—maybe impossible—to prescribe a detailed course of study for commonalities we think appropriate for all.

We believe that General Education courses should encompass some reasonable fraction of the totality of human knowledge, insight, and interpretation. We believe that a person's General Education should include some knowledge of the historical development of society, and some awareness both of one's own society as it exists today and of societies other than one's own. We believe that an appreciation of science and the scientific method is advantageous for survival and participation in the modern world. We believe that the ability to reason mathematically and quantitatively and the ability to express one's thoughts in writing are essential and basic skills. Finally, we believe that every reasonably well-educated person must have some appreciation of literature and the arts—fields of activity that explore, interpret, and evaluate the life of the imagination.

Breadth of knowledge as reflected in General Education is not the only goal of a University education. Depth of knowledge in selected fields is equally important, and to acquire this, students choose major fields of study, and in some cases, minor fields as well. It is our intent that a student's major coupled with General Education courses and electives will provide both breadth and depth within an entire undergraduate program.

Finally, no combination of General Education, major, and elective courses will, in and of itself, produce a fully and finally educated person. Learning is a life-long process; the best a student can expect from an undergraduate course of study is to learn how to learn and appreciate the value of learning. Students who leave our University with the feeling that their education is somehow complete do themselves a great disservice.

### II. PROBLEMS WITH CURRENT GENERAL EDUCATION PROGRAM

A major problem with the present distribution requirements is the proliferation of courses that can fulfill these requirements (distribution courses exceed 1,000.) This proliferation reflects the lack of clear goals, objectives, and rationales for what we mean by General Education. It is currently possible for students to fulfill their requirements without ever reading fiction, plays, or poems; without engaging in a scientific laboratory experience; without any understanding of history, government, society; and without knowing about non-western cultures or the problems faced by groups other than white, male North Americans or Europeans. Although no set of requirements will remedy all these deficiencies for all students, a General Education program should at least address the problem by assuring exposure to many of these areas.

Another major problem with the present system is advising. While advising problems are not unique to the lower division, the present distribution requirements exacerbate such problems because they lack coherence and clearly articulated rationales. It is a telling point that the official undergraduate catalogue, which should be an important resource for advising, does not even offer an explanation or rationale for the distribution requirements. It is now wonder that many students and faculty regard them as meaningless obligations to be satisfied or avoided with the least effort possible.

Yet, the publication of a General Education program and its justification in the official undergraduate catalogue is not enough. The Faculty Senate recognizes the vital importance of advising to General Education and urges departments, colleges, and schools to play a more direct role in helping students choose from the General Education offerings courses that will expand their knowledge and enrich their understanding and appreciation of the world in which they live.

### III. GENERAL PRINCIPLES

#### A. Areas of Knowledge

General Education should enable students to learn how natural scientists, social scientists, humanists, and performing artists think about their disciplines and how they view their work in relation to both history and contemporary society. While most General Education courses will probably come from departments in the colleges of Arts and Sciences, scholars in the natural sciences, social and behavioral sciences, humanities, and the performing arts exist across disciplines and administrative divisions.

#### B. Instructional Quality

General Education courses should do more than impart information and provide the skills deemed necessary to social or economic success. They should involve critical or analytic thinking and should provide contexts for questioning the larger society and the student's relation to it. The capacity for critical thought also includes the ability to imagine the consequences of one's choices, to articulate those consequences, and to increase understanding of one's relation to the world of nature, work, and politics. This relates to a basic goal of all General Education Programs: i.e., the development of an intelligent citizenry.

#### C. Statement of Purpose

The purpose of the General Education requirement is to stretch students' minds, broaden their experiences, and prepare them for:

- Their college experiences and subsequent professional training
- Their careers and productive lives
- Community engagement and informed citizenship
- A diverse and rapidly changing world
- A lifetime of learning

The General Education curriculum does this by engaging students in:

- Fundamental questions, ideas, and methods of analysis in the humanities and fine arts, social sciences, mathematics, and natural and physical sciences;
- The application and integration of these methods of analysis to real world problems and contexts;
- Creative, analytical, quantitative, and critical thinking through inquiry, problem solving and synthesis;
- Pluralistic perspective-taking and awareness of the relationship among culture, self, and others;
- Understanding and evaluating the consequences of one's choices and the implications of one's actions.
- Opportunities to develop and practice the skills of critical thinking, reasoning, communication, and integration of knowledge and perspectives, including:
  - Communicating persuasively and effectively orally and in writing;
  - Working effectively and collaboratively (in groups, across perspectives);
  - Developing information and technological literacy.

#### IV. GUIDELINES

Consistent with these principles, all General Education courses should adhere to the following guidelines:

- A. Courses should emphasize critical thinking. This means that writing and problem solving would be the norm rather than the exception and would be reflected in the evaluation and examination procedures.
- B. To promote the goals set in the preceding paragraph, faculty offering large General Education courses of more than fifty students should be provided with teaching assistants to help with the grading of essays and papers and/or the teaching of laboratories or discussion sections.
- C. Courses used to satisfy general education requirements may not be taken pass/fail.
- D. In order to limit the number of General Education courses, no more than 25% of the regularly taught courses of a department/program may have General Education designations. "Regularly taught courses" shall be defined as courses from the approved master course list taught at least once every three years excluding seminars, independent study, internships, practica, and laboratory courses. Since this limitation may pose problems for some departments/programs (especially small ones) because of the number or type of course offerings, it may be appealed to the Council by departments seeking justified exceptions.
- E. Both major and non-major introductory courses may be accepted as General Education requirements.
- F. Selected upper level courses may be allowed to fulfill General Education requirements. Students may count no more than one course in the major (as recorded at graduation) toward General Education requirements.

#### COURSE REQUIREMENTS

The General Education Curriculum has three principal divisions: the Social World, Biological and Physical World, and Analytic Reasoning. These are general titles and reflect the idea that courses should be assigned to a category because of its content rather than because it is taught by a particular department. Thus departments may have course designations in more than one area.

The Social World has three major subdivisions: The Arts, Historical Studies, and Social and Behavioral Sciences. Students must take two courses in each of these subdivisions. In addition, there is a Human and Cultural Diversity component to the Social World requirement. All students must take two courses in the Social World that also have a Human and Cultural Diversity designation.

The Biological and Physical World has two major subdivisions: Biological Sciences and Physical Sciences. Students must take three courses in this area, with at least one course being taken in each subdivision. At least one of the three courses taken to satisfy the requirement in this area must have a laboratory component associated with it.

The Analytic Reasoning has two major subdivisions: Tier I and Tier II. Tier I is a basic competency requirement. Tier II requires students to take at least one course in mathematical, quantitative, numerical, analytical or formal reasoning.

In addition to the three principal division, there is an Experimental/Interdisciplinary category. Its purpose is to provide an incentive and a structure for faculty to develop alternate curriculum approaches to General Education. These courses may carry one or more major area designations. The student may satisfy up to three General Education courses through the Experimental/Interdisciplinary category.

To summarize, the proposed requirements for General Education courses are in three principal divisions:

- (1) The Social World
- (2) The Biological and Physical World
- (3) Analytic Reasoning

## I. THE SOCIAL WORLD

A major goal of the General Education Program is to broaden students' understanding of humanity. As a step toward that goal, the Social World category probably represents the most far reaching change in the curriculum. There is virtually a universal consensus on the scope and meaning of the Natural World—our attempt to understand the phenomena of the natural universe. The Social World category is an attempt to combine in new ways fields which were once separated. The unifying theme of the Social World is the focus on human beings and the fields of knowledge devoted to gaining insight into a world created by human beings with important consequences for their activities as individuals and as members of larger groups.

The classical Aristotelian doctrine that an intellectual activity is scientific when its aim is to ascertain the truth, and aesthetic when its goal is poetic creation, is very difficult to sustain today. Social scientific theories often involve an act of creation and are sometimes described as elegant if not beautiful. The arts, literature, and history are not simple flights of imagination, but derive from life, and are meant to teach us something lasting and profound about human behavior.

The Social World category, then, combines the previous Humanities ("C") and Social Sciences ("D") distribution areas into a new generic category that is inclusive yet coherent. The arts, history, and the social sciences use diverse paradigms and perspectives but share the common aim of understanding the Social World that we have created and which constitutes our own social reality.

Within the Social World category, students will be required to take six 3 credit courses, with two courses in each of three areas: (1) The Arts, (2) Historical Studies, (3) Social and Behavioral Sciences. A requirement in Human and Cultural Diversity will be imbedded in the Social World category.

In keeping with the Faculty Senate's commitment to incorporate writing into parts of the undergraduate curriculum other than the Writing Program (Sen. Doc. 82-057), all courses in the Social World area of the General Education program should include a writing requirement because regular practice in writing encourages clear thinking and clear expression. Preferably, paper assignments will be included in Social World courses, but essay examinations will be considered acceptable if the instructor responds to them with written comments on both content and composition.

### The Arts

The arts do more than imitate life; they interpret and explain it. The arts area of General Education is made up of courses which consider the production, performance, function, and aesthetic evaluation of the arts--visual, aural, verbal, and plastic--in relation to one another and to the societies that have and will produce them. Although departments in Humanities and Fine Arts traditionally teach courses satisfying this definition, so do some other units of the University.

The courses shall be required in the Arts. One must be in literature, and the other may be in literature or in one of the visual and performing arts. Courses in the arts area of the General Education curriculum should follow these guidelines: (1) they should be designed to provoke comparison and critical acuity; (2) they may provide participatory experiences such as projects, performances, and attendance at plays, concerts, galleries, etc., but courses aimed primarily at the learning of a skill or performance do not qualify; (3) they may treat foreign literatures, either in translation or in the original language;(4) they should encourage verbal expression through writing exercises.

### Historical Studies

We learn from the past. All aspects of human existence, including our social, political, and economic systems, have evolved from the past and help to illuminate and shape our present and future lives.

Courses in Historical Studies should enable students to learn about significant historical developments and processes and to gain an awareness of and appreciation of an historical perspective. They will necessarily focus on human interaction in specific situations developing through time. Such courses should cover a sufficient breadth of scope and time to consider the development of significant social, political, or economic institutions or ideologies. While a broad, historical survey course would meet this criterion, a course on a particular historical event or a narrow period of time might be included if it had a sufficiently broad perspective. For example, a course on the Civil War might be appropriate if it considered pre-war causes and conditions as well as post-war ramifications; it would not be appropriate if it analyzed only the military strategies of particular battles. Some Historical Studies courses might also encourage students to "do" history by enabling them to consider their personal, family, or community histories as an introduction to broader historical events and processes.

In general, a course shall satisfy the Historical Studies requirement if its primary purpose is to expose students to historically important events, developments, or processes as a way of teaching them to understand the present and direct their futures. The History department, obviously, offers many courses that meet the intent of the Historical Studies requirement. Other departments, however, offer courses that may satisfy the requirement.

### Social and Behavioral Sciences

Scholars and practitioners in the Social and Behavioral Sciences attempt to interpret and understand human behavior and the evolution, structure, and functions of human social organizations, institutions, and cultures. Their work investigates the behavior of individuals, the relationships among individuals, and the larger social environments in which humans live.

The Social and Behavioral Sciences have taught us that people are both creatures and creators of their own societies. Educated individuals should have some understanding of this reciprocity, and they should appreciate the diversity that exists in human societies. When we fail to grasp the variations among human cultures and social arrangements, we often perceive our own social milieu as both "natural" and "fundamentally right." Insights about the explanations for and causes of human behavior, the nature of human societies, the structure of social relationships, and the ways in which people and societies change should help students think more clearly about their own human nature and the social worlds in which they live. These insights may help them plan more effectively for their futures, and may help shape the future of our own society in positive ways.

Courses in the Social and Behavioral Sciences should meet the following guidelines: (1) they should introduce students to theory, methods, and results of systematic and critical inquiry about individual and social life; (2) they should demonstrate the dynamic nature of both individuals and societies, leading to an understanding of change as a natural process; (3) they should stress the systematic quality of individual and social life, leading to an understanding of the complex relationships among individual behaviors, human situations, and social institutions.

### Social and Cultural Diversity Component

Within the six courses of the Social World requirement, students must take two courses devoted to specific study of diversity in human cultures and societies. It is important that General Education address the complex ways in which societies and cultures differ from one another. Educated individuals should be guided by attitudes which value cultural differences. Their perspectives on and communication with people of different cultures, both within their own society and in other societies, should emanate from an understanding of cultural diversity rather than from applying ethnocentric stereotypes. More specifically, the purposes of the requirement are: (1) to emphasize the need for educated citizens to understand that different cultures and societies provide unique contexts for human experience; (2) to analyze and appreciate the ways in which norms and values differ across cultures and societies; and (3) to encourage pluralistic perspectives.

Courses satisfying this requirement shall reach beyond the perspectives of mainstream American culture and the Western tradition. They may focus on the peoples of Africa, Asia, Latin America, or the Middle East; the descendants of those peoples living in North America; other minorities in Western industrial societies; and Native Americans. Since a sensitivity to social and cultural diversity is advanced by an understanding of the dynamics of power in modern societies, courses that focus on the differential life experiences of women outside the mainstream of American culture, minorities outside the mainstream of American culture, and the poor also come within the scope of this requirement.

## II. BIOLOGICAL AND PHYSICAL WORLD

### Rationale

Another major goal of the General Education Program is to insure that students develop an awareness of the world around them. An important component of such a curriculum is exposure to the world of nature. A well educated person should have some knowledge of the biological and physical sciences and the theories that have been developed to explain and understand in a coherent way the great diversity of nature. With the rapid advances in the sciences profoundly influencing all aspects of our lives, some knowledge of the sciences is advantageous for participation and survival in the modern world. Therefore in order that each student have some awareness of the sciences, a Biological and Physical Sciences requirement shall be of the General Education curriculum.

Within the Biological and Physical Sciences category, students will be required to take three courses, with at least one in a Biological science and one in a Physical science. In most cases, the category to which a course will be assigned will be obvious. The Biological science courses are those dealing with living organisms and their functions and activities; the Physical science courses deal with inanimate materials and processes. In borderline cases, such as some courses in biochemistry and molecular biology, assignment will be made after consultation. Each course will be assigned to one area of the other; no course may be assigned to both.

Since the sciences are based on facts from which theories are constructed and tested, the ideal is for each course to provide students with the opportunity to do experiments, make observations, record facts, and evaluate and interpret data. Therefore, at least one of the three courses taken to satisfy the Biological and Physical World Requirement must have a laboratory component associated with it.

Courses in this category of General Education should meet the following guidelines: (1) they should not require other courses as prerequisites or require follow-up courses for an adequate grasp of the subject; (2) they should include some historical material showing the evolution of the science and how its fundamental theories were formulated; (3) they should illustrate the scientific method, giving some indication of the most fundamental facts and observations and how these are used to build general principles; and (4) they should address the relevance of the science and its impact on society.

## III. THE ANALYTIC REASONING REQUIREMENT

A third major goal of the General Education Program is to provide all students with some enhanced capacity for analytic reasoning. Increasingly, the world is full of numerical information that every educated person must learn to process, evaluate and understand. Without certain basic skills in quantitative or analytical reasoning, full participation in modern society is difficult; indeed, an adequate appreciation of the information content of a daily newspaper often requires certain numeracy skills.

To insure that all students possess these skills, graduation from the University of Massachusetts shall require: (1) the demonstration of basic competence in college level mathematical reasoning; and (2) one additional course in mathematical, analytic, quantitative, formal, or numerical reasoning. The basic competence requirement will be designated Tier I and the additional requirement Tier II.

Proposed Changes in the R1 Basic Math Skills Requirement

Sen. Doc. No. 85-024A “Special Report of the Rules Committee Concerning the Undergraduate General Education Requirement” will be amended as follows:

Tier I

The Tier I basic math skills requirement (the “R1 requirement”) can be satisfied in either of two ways:

- (i) By passing the Tier I Exemption Examination offered by the Department of Mathematics and Statistics.
- (ii) By passing a course bearing a Tier I (=R1) or Tier I/Tier II (=R1/R2) designation.

A course bearing the Tier I/Tier II designation can be used to satisfy both the Tier I and Tier II requirements simultaneously.

Courses eligible for the Tier I designation (either alone or in combination with the Tier II designation) are those that offer instruction in or presuppose prior knowledge of basic math skills. Advanced courses in mathematics or statistics are usually eligible for Tier I designation upon application to the General Education Council.

Entering students (transfer students included) are ~~required~~ encouraged to take the Mathematics Placement Examination or an equivalent examination approved by the General Education Council. On the basis of the examination, students will be assigned to one of five levels of entering mathematical ability, with Level I indicating the highest level of entering mathematical ability and Level V the lowest.

For students who score at level IV or V on the Mathematics Placement Examination, the Department of Mathematics and Statistics recommends that they take either MATH 100 or MATH 101-102. Students who score at level III are ready for MATH 104, the one-semester version of MATH 101-102. Students who score at levels I or II are ready for calculus, and more detailed placement recommendations are available from the Department. Completion of any of these courses will satisfy the Tier I requirement.

~~Students who are placed in Levels I, II, or III are considered to have satisfied the Tier I (basic competence) requirement and may proceed at once to a Tier II course. Students with the highest level of entering ability would normally be expected to choose more challenging Tier II courses. For example, a student placed in Level I is considered ready for a course in calculus; students who are placed in Levels II or III are not.~~

~~Students who are placed in Levels IV and V must satisfy the Tier I requirement through remedial course work. Level IV students must satisfactorily complete MATH 011 or MATH 011L; Level V students must satisfactorily complete both MATH 010 or MATH 010 and MATH 011 or MATH 011L as a condition for graduation. Courses other than those specifically listed here, which provide remediation of junior high school mathematics may be used to satisfy Tier I requirements if approved for that purpose by the General Education Council.~~

~~Consistent with current practice, credits earned in the remedial curriculum (MATH 010, MATH 010L, MATH 011L) do not count as credits toward graduation, but they do count toward full-time student status; grades earned in these courses are figured into a student's grade point average.~~

~~Being placed in Level I, II or III on the Mathematics Placement Test (or its equivalent), satisfactorily completing one or both of the remedial mathematics courses, and receipt of credit under the transfer provision are the only ways in which the basic competence requirement can be satisfied. No waiver of this requirement will be granted for any reason.~~

~~The University offers two separate programs in remedial mathematics. The first, consisting of MATH 010 and 011, is a more conventional course of mathematical study that focuses on the manipulation of symbols and variables, and is designed as a preparatory curriculum for students who intend to continue on into other mathematics courses. The second, consisting of MATH 010L and MATH 011L, is a less conventional course of study and is focused more on problem solving and comprehension skills than on symbol manipulation. The basic competency Tier I requirement can be satisfied by successfully completing either of these two remedial mathematics curricula.~~

The annual design, evaluation, scoring, and minimal competency criteria will be the responsibility of the General Education Council's Standing Subcommittee on the Analytical Reasoning Requirement.

### Rationale

These proposed changes to the language describing the Tier I (now called R1) basic math skills requirement were initiated by the Department of Mathematics and Statistics and approved after extensive discussion and consultation by the General Education Council. The changes have three main components:

(i) The Mathematics Placement Examination will no longer be used to satisfy the R1 requirement. This change is necessary because the Department of Mathematics and Statistics, which has responsibility for this exam, is moving to a placement test that is self-administered over the Internet. Because the Internet-based test is not proctored, it is fine for placement purposes but cannot be used to satisfy the R1 requirement. The Department has offered and will continue to offer a R1 Exemption Examination. Currently, this exam is administered several times each semester in a proctored setting. In the future, the Department hopes to offer an on-demand computer-based exam in a proctored computer lab.

(ii) The range of courses that can be used to satisfy the R1 requirement is expanded. Knowledge of mathematics is cumulative, and a student who passes a course in calculus does not need to take an exam to demonstrate familiarity with basic math skills like computing area, solving linear equations, or manipulating fractions. Under the new rubric, courses will be eligible for R1 designation if they offer instruction in basic math skills or if they presuppose prior acquaintance with and facility in using these skills. Since many courses with a current R2 designation also presuppose these skills, the Council proposes to introduce a R1/R2 designation for courses that simultaneously satisfy both requirements.

Appendices A and B contain a list of courses in the Department of Mathematics and Statistics that are proposed for R1 or R1/R2 designation. Courses in other departments may also be eligible for one of these designations upon application to the Council. It should be noted, however, that not all R2 courses are eligible for the added R1 designation, since many R2 courses deal primarily with symbolic rather than numerical applications of analytic reasoning.

(iii) The remaining changes deal with course recommendations based on performance on the Placement Examination. The Department of Mathematics and Statistics has reorganized its courses in the years since 1985. These changes reflect current practice in placing students.

#### Appendix A: Courses Recommended for R1/R2 Designation

These courses have current R2 designation and presuppose knowledge of basic math skills.

MATH 113  
 MATH 121  
 MATH 127  
 MATH 128  
 MATH 131  
 MATH 132  
 MATH 135  
 MATH 136  
 MATH 233  
 MATH 235  
 MATH 236  
 MATH 456

STATISTIC 111  
 STATISTIC 140  
 STATISTIC 501  
 STATISTIC 515  
 STATISTIC 516

**Appendix B: Courses Recommended for R1 Designation**

**These courses presuppose knowledge of basic math skills.**

MATH 114  
 MATH 245  
 MATH 246  
 MATH 300  
 MATH 331

**Tier II**

In addition to the demonstration of basic competence, as outlined above, graduation from the University requires an **additional** three-credit course at the 100-level or above in mathematical, quantitative, numerical, analytical, or formal reasoning.

Tier II courses may, but need not, be a 100-or-higher-level course in mathematics per se. Courses in formal logic, formal linguistics, computer programming or applications, statistics, quantitative research methods, data analysis, etc., can also be used to satisfy the Tier II requirement. In general, a course is deemed adequate to satisfy the Analytic Reasoning, Tier II requirement if it is demonstrably useful in: (1) advancing a student's formal or mathematical reasoning skills beyond the level of basic competence, or (2) increasing the student's sophistication as a consumer of numerical information, or (3) providing computer literacy; or, of course, any combination of these. Normally, Tier II courses will also indicate something of the limits of formal, numerical, quantitative, or analytical reasoning, and will also discuss the potential for the abuse of numerical arguments.

In practice, most courses at the 100 level or higher in the Department of Mathematics and Statistics, and most courses at the 100 level or higher in the Department of Computer and Information Sciences, will satisfy the Tier II requirement. Many course offerings in departments other than MATH and COINS will also satisfy the requirement. Courses whose primary purpose is remediation of High School mathematics will not satisfy the Tier II Analytic Reasoning Requirement.

**Transfer Provision:** The Analytic Reasoning Requirement may be satisfied by transfer of credits for two or more courses which, if taken at UMass would satisfy the Tier II Requirements, and the Tier I Competency Requirement may be satisfied by transfer of one course which, if taken at UMass would satisfy the Tier II Requirement. In the latter case students must complete one Tier II course at UMass.

**EXPERIMENTAL/INTERDISCIPLINARY COURSES**

The General Education curriculum as described in the foregoing pages is organized mainly along the existing departmental structure of the University. Some faculty, however, have interests in offering entirely different kinds of courses, and some students would be interested in taking them. Many of these courses would be experimental, multi-disciplinary, and issue focused, and would, by their very nature, speak to the basic integration of (many) fields of human study.

To create a mechanism whereby such courses could be offered and taken on something other than an episodic basis, an Experimental/Interdisciplinary section has been added to the General Education curriculum. In general, the point of this mechanism is to encourage pedagogical innovation and to provide multi-disciplinary undergraduate offerings.

Experimental/Interdisciplinary General Education courses might be of two types. One would be an interdisciplinary course offered and taught by a single instructor or by a team of faculty from different disciplines. Another would be a cluster of courses, which would be offered by faculty from different disciplines and be related to each other by a central topic or issue; the courses might be two or three, each of which would satisfy a different general education requirement.

One example might be a course or courses organized around the topic of evolution. Scholars in astronomy, biology, and sociology with a special interest and expertise in evolution might develop and offer a course or cluster of courses on the origin and evolution of the universe, the evolution of life, and social institutions. Another example might be a course or cluster of courses on the topic of cognitive science where a team of interested faculty in psychology, linguistics, and computer science would offer a course or cluster of courses in information processing, the semantics and syntax of language, and artificial intelligence. A third example might focus on major revolutionary movements of our time: feminism, Marxism, and black nationalism taught by faculty members in Women Studies, STPEC and Afro-American Studies. The course or cluster of courses would explore the similarities and differences among these movements. Clearly, the number of multidisciplinary topics and issues that might be offered by a faculty member or a team of faculty is boundless and limited only by the creativity and imagination of the faculty.

The distinguishing characteristic of all the courses sketched above is that they are recognizably different from usual undergraduate course offerings; they are focused mainly on issues or topics rather than on academic disciplines, and are deliberately interdisciplinary in nature. Courses of this sort, with the right mix of faculty and students meeting under the right conditions, could well be highpoints in a student's undergraduate experience, and they deserve encouragement.

Students may satisfy up to three of their General Education requirements by taking interdisciplinary and/or cluster course options. No one course may be used by a student to satisfy more than one requirement. No student is required to take Experimental/Interdisciplinary courses. Students who have already filled their General Education requirements could, of course, take these courses on an elective basis.

#### IV. REVIEW PROCEDURES

There will be two review procedures: an initial review of General Education course proposals and a periodic review of existing General Education courses. To conduct both reviews the General Education Council shall create six subcommittees, one for each of the core areas and the Experimental/Interdisciplinary area:

- 1) Quantitative Reasoning
- 2) Biological and Physical Sciences
- 3) Historical Studies
- 4) The Arts
- 5) Social and Behavioral Sciences
- 6) Experimental/Interdisciplinary Courses

The membership of each subcommittee shall include at least two members of the General Education Council and three faculty members affiliated with the appropriate core area and selected by the Council.

Courses for the Cultural Diversity requirement will be reviewed by the appropriate subcommittees of the social world areas – Historical Studies; Literature and the Arts; or Social and Behavioral Sciences.

#### Review of General Education Courses

- 1) The General Education Council will develop a course proposal from which will require the inclusion of: course syllabus and outline, reading assignments, examination procedures, qualifications of instructors, etc. Each completed proposal will be submitted to the appropriate subcommittee for review; the subcommittee will make recommendations to the Council for ratification.
- 2) For the Experimental/Interdisciplinary course options there will be a two-step review:
  - a) As an “intent to plan,” faculty who want to propose an interdisciplinary course or cluster of courses shall submit a preliminary proposal to the General Education Council describing the conception and broad outline of the course(s) together with the qualifications and interest of the faculty to be involved.
  - b) If the “intent to plan” statement is approved by the Council, the faculty member(s) would then prepare a formal course proposal, including a recommendation for which General Education core area(s) the course(s) would satisfy. This detailed proposal will then be submitted to the subcommittee on Experimental/Interdisciplinary courses. The subcommittee, in reviewing the proposal will consider whether the course is of sufficiently wide scope to be offered under the Experimental/Interdisciplinary rubric. The subcommittee, after meeting with other appropriate subcommittees, will also consider the eligibility of the course to satisfy General Education requirements in one or more of the five core areas. Again, the recommendation will be brought to the Council for ratification.
- 3) All courses approved for General Education designation by the General Education Council will be sent to the Faculty Senate for official confirmation.

**B. Quadrennial Review of Existing Core Courses**

In order to maintain quality General Education Courses, there will be a “sunset” clause for all General Education courses. Each course will be reviewed and evaluated every four years. In order to stagger the evaluation process, some courses will be reviewed year 2, others year 3, and the remaining during year 4. In addition to existing guidelines, information such as student evaluations, grade distributions, how the course has been modified and improved, etc., will be solicited.

**GENERAL EDUCATION PROPOSAL: An Overview of Requirements**

**I. Social World – six courses, two each in the following subdivisions:**

- A. Arts – at least one course in literature
- B. Historical Studies
- C. Social and Behavioral Sciences

D. At least two of the courses must have a Human and Cultural Diversity designation – The requirement of all students, effective with the freshman class and transfers entering Fall 2002, is to complete one of their two Social & Cultural Diversity requirements with a course that focuses on diversity in the United States and the other with a course that focuses on diversity outside the United States.

**II. Biological and Physical World – Three courses, at least one in each of the following subdivisions:**

- A. Biological Science
- B. Physical Science

C. At least one of the three courses must have a laboratory component associated with it.

**III. Analytic Reasoning – two Tiers**

- A. Tier I – Basic competency
- B. Tier II – One additional course in mathematical, analytical, quantitative, formal or numerical reasoning

**IV. Experimental/Interdisciplinary Courses – students may satisfy up to three General Education courses through this approach**

**V. Students will not receive General Education credit for courses taken Pass/Fail.**

**VI. Students will not be allowed to use a single course to satisfy more than one General Education Requirement.**

**VII. Students may count one and only one course in their major as a General Education Course.**

**MOVED: 16-85** That the Faculty Senate approve the adoption of the Undergraduate General Education Requirements set forth in Sen. Doc. No. 85-024.

**MOVED: 39-01** That the Faculty Senate amend Sen. Doc. No. 85-024 to require all students, effective with the freshman class and transfers entering Fall 2002, to complete one of their two Social & Cultural Diversity requirements with a course that focuses on diversity in the United States, and the other with a course that focuses on diversity outside the United States.  
(This motion was seconded and carried at the 592<sup>nd</sup> Regular Meeting of the Faculty Senate on May 10, 2001.)

**MOVED: 27-05** That the Faculty Senate adopt the proposed changes in the Tier I (R1) Basic Math Skills Requirement, as presented in Sen. Doc. No. 85-024B.