

(These are the changes to General (Liberal) Education, approved at Curriculum, April 21, 2004 and at Faculty Assembly, May 7, 2004)

Please note that some of this work is still evolving, that our liberal education framework will need regular consideration for appropriate adjustments and there are still questions that need clarification. There is some urgency to the situation because of the institutional need to continue to assess student achievement in liberal education.

Also attached are charts listing the courses under the distributed liberal education goals and competencies. That list is also evolving and is open to additions and deletions. That work is to be guided by the standing sub-committee of Curriculum, on Liberal Education. (Soo Yin is this department's representative)

Approved changes:

1. change name from “general” to “liberal” education. Liberal is the identifier used at all other U of M campuses and at many MnSCU campuses.
2. adopt the goals and competencies for liberal education adopted by U of M and MnSCU under the “Minnesota Transfer Curriculum”, February, 1994. This change will provide a very defensible liberal education framework for assessing student achievement. The competencies define what the students are expected to be able to do. (see attached list).
3. that the minimum credits for the liberal education curriculum be established at 40 credits without including the required three credits in computer applications. (our current requirement is 45 credits including 3 credits in computer applications)
4. that the competencies for “critical thinking” be dealt with in an umbrella statement such as “requires completion of the liberal education curriculum”.
5. that the requirements for the natural sciences be established at a minimum of 6 credits in two laboratory sciences, one from biological and one from physical sciences.
6. that the requirement for mathematical thinking be established at a minimum of 3 credits.
7. that the requirements for communication credits be established at a minimum of 9 credits. The usual fulfillment of that requirement will be Composition One, Composition Two, and Public Speaking. (urge faculty to consider the strength of advisory committees' recommendations for increasing emphasis on communication)
8. that the requirements for history and the social and behavioral sciences be established at a minimum of 6 credits.
9. that the requirements for the humanities be established at a minimum of 6 credits.
10. that one course each must be taken from each of the goal areas of human diversity, global perspective, ethical and civic responsibility, and people and the environment. Courses in these goal areas are usually also counted in one other goal area.
11. that the new distribution of liberal education goal areas would be minimally:

- 9 credits in Communication (usually Comp 1011, Comp 1013, and Spch 1101)
- 6 credits in Natural Sciences from both biology and physical with labs
- 3 credits in mathematics
- 6 credits in humanities
- 6 credits in social science
- at least one course from the remaining areas of human diversity, global perspective, ethical and civic responsibility, and people and the environment (these courses may also count in the other goal areas)

Liberal education credits must reach a minimum of 40 credits.

12. create a standing sub-committee of Curriculum Committee that will use and interpret such documents as the “Guidelines for the Review and Design of a Minnesota Transfer Curriculum” for reviewing and recommending UMC’s liberal education requirements. The sub-committee will also consult with such documents as the Twin Cities campus bylaws for the Council on Liberal Education, the Duluth and Morris campuses guidelines for liberal education and with the Vice Provost’s Office for Undergraduate Education. (This standing sub-committee was established at Faculty Assembly on September 17, 2004)
13. establish a framework to begin assessing student achievement as soon as possible. **The entering class of fall 2005 would fall under the new liberal education requirement.**
14. urge that revisions to liberal education be as clearly explained as possible with Department Heads devoting much effort to assist the changes.
15. all faculty teaching, current liberal education courses and other courses possibly meeting the competencies, are expected to review and revise their syllabi to make explicit which competencies are met in each of their courses by stating the competencies in the syllabi under the learner outcomes.
16. all faculty responsible for degree programs are expected to review and revise program curriculum to assure that all competencies are included and are measurable for student achievement.

1. WRITTEN and ORAL COMMUNICATION C

Goal: To develop writers and speakers who use the English language effectively and who read, write, speak and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing-intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking, and discussion.

Student competencies: Students will be able to

- Understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.
- Participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- Locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.
- Select appropriate communication choices for specific audiences.
- Construct logical and coherent arguments.
- Use authority, point-of-view, and individual voice and style in their writing and speaking.
- Employ syntax and usage appropriate to academic disciplines and the professional world.

Designator	Title of course	Core(s)
Comp 1011	Composition I	C
Comp 1013	Composition II	C
Spch 1101	Public Speaking	C

2. CRITICAL THINKING

Goal: To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Critical thinking will be taught and used throughout the general education curriculum in order to develop students' awareness of their own thinking and problem-solving procedures. To integrate new skills into their customary ways of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended problems.

Student competencies: Students will be able to

- Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
- Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.
- Analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
- Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

Designator	Title of course	Core(s)
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(requires completion of 40 credits of liberal education)

3. BIOLOGICAL AND PHYSICAL SCIENCES Biol L or Phys L

Goals: To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students should be encouraged to study both the biological and physical sciences.

Student competencies: Students will be able to

- Demonstrate understanding of scientific theories.
- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
- Communicate their experimental findings, analyses, and interpretations both orally and in writing.
- Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Designator	Title of course	Core(s)
Biol 1009	General Biology	Biol/L
Chem 1001	Introductory Chemistry	Phys/L
Chem 1021	Chemical Principles I	Phys/L
Geol 1001	Introductory Geology	Phys/L
Phys 1012	Introductory Physics	Phys/L
Phys 1101	Introductory College Physics I	Phys/L

4. MATHEMATICAL THINKING M

Goal: To increase students' knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.

Student competencies: Students will be able to

- Illustrate historical and contemporary applications of mathematics/logical systems.
- Clearly express mathematical/logical ideas in writing.
- Explain what constitutes a valid mathematical/logical argument (proof).
- Apply higher-order problem-solving and/or modeling strategies.

Designator	Title of course	Core(s)
Math 1031	College Alge & Analytical Geometry	M
Math 1142	Survey of Calculus	M
Math 1150	Elementary Statistics	M
Math 1250	Precalculus	M
Math 1271	Calculus I	M

5. HISTORY AND THE BEHAVIORAL AND SOCIAL SCIENCES H & SS

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Student competencies: Students will be able to

- Employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods and cultures.
- Use and critique alternative explanatory systems or theories.

- Develop and communicate alternative explanations or solutions for contemporary social issues.

Designator	Title of course	Core(s)
CJ	Intro to Criminal Justice	H & SS,
CJ	Crime and Crimnology	H & SS,
CrJs 1120	Crim. Justice and Society (BSU)	H & SS,
Econ 2101	Microeconomics	H & SS,
Econ 2102	Macroeconomics	H & SS,
Geog 1104	World Regional Geography	H & SS,
Hist 1021	World Civilization I	H & SS,
Hist 1022	World Civilization II	H & SS,
Hist 1301	American History I	H & SS,
Hist 1302	American History II	H & SS,
Hist 3054	Topics in History	H & SS
Pol 1001	American Government	H & SS,
Pol 1054	Comparative Government	H & SS,
Psy 1001	General Psychology	H & SS,
Psy 1093	Developmental Psychology	H & SS,
Soc 1001	Introduction to Sociology	H & SS,
Soc 1102	Cultural Anthropology	H & SS,

6. The Humanities--the Arts, Literature, and Philosophy HUM

Goal: To expand students' knowledge of the human condition and human cultures. especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society. Students should have experiences in both the arts and humanities.

Student competencies: Students will be able to

- Demonstrate awareness of the scope and variety of works in the arts and humanities.
- Understand those works as expressions of individual and human values within an historical and social context.
- Respond critically to works in the arts and humanities.
- Engage in the creative process or interpretive performance.

- Articulate an informed personal reaction to works in the arts and humanities.

Designator	Title of course	Core(s)
Art 1152	Drawing and Design	Hum
Art 1252	Color and Design	Hum
Art 1352	Art Design and Techniques	Hum
Hum 1301	Intro to the Humanities	Hum,
Hum 3310	Culture and Technology	Hum,
Lit 1005	Introduction to Literature	Hum,
Lit 1016	Readings in American Life	Hum,
Lit 3001	World Literature	Hum,
Mus 1021	Introduction to Music	Hum,
Mus 3029	Music of the 20 th Century	Hum,
Mus 1011	University Singers	Hum
Mus 1041	Private Instruction	Hum
Mus 1042	Class Piano	Hum
Mus 1051	University Band	Hum
Mus 1071	Musical Theater	Hum
Phil 1001	Introduction to Philosophy	Hum,
Th 1121	Theatre Production	Hum

7. HUMAN DIVERSITY HD

Goal: To increase students' understanding of individual and group differences (e.g. race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the United States' historical and contemporary responses to group differences.

Student competencies: Students will be able to

- Understand the development of and the changing meanings of group identities in the United States' history and culture.
- Demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
- Analyze their own attitudes, behaviors, concepts and beliefs regarding diversity, racism, and bigotry.
- Describe and discuss the experience and contributions (political, social, economic, etc.) of the many groups that shape American society and culture, in particular those groups that have suffered discrimination and exclusion.
- Demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

Designator	Title of course	Core(s)
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*Hist 1301	American History I	HD
*Hist 1302	American History II	HD
Lit 1016	American Literature	HD
Soc 1001	Introduction to Sociology	HD

*(Instructor has not yet agreed that 51% of the competencies are met in significant portions in the course.)

8. GLOBAL PERSPECTIVE GP

Goal: To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.

Student competencies: Students will be able to

- Describe and analyze political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions.
- Demonstrate knowledge of cultural, social, religious and linguistic differences.
- Analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.
- Understand the role of a world citizen and the responsibility world citizens share for their common global future

Designator	Title of course	Core(s)
*Econ 2101	Microeconomics	GP
*Econ 2102	Macroeconomics	GP
Geog 1101	World Regional Geography	GP
*Hist 1021	World Civ I	GP
*Hist 1022	World Civ II	GP
Hum 1301	Intro to Humanities	GP
Hum 3310	Culture and Technology	GP
Lit 1005	Intro to Lit	GP
Lit 3001	World Lit	GP
Mus 1021	Intro to Music	GP
Mus 3029	Music of 20 th Cent.	GP
*POL 1054	Comparative Govt	GP
Soc 1102	Cultural Anthropology	GP

*(Instructor has not yet agreed that 51% of the competencies are met in significant portions in the course.)

9. ETHICAL AND CIVIC RESPONSIBILITY E&CR

Goal: To develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and other's positions, be part of the free exchange of ideas, and function as public-minded citizens.

Student competencies: Students will be able to:

- Examine, articulate, and apply their own ethical views.
- Understand and apply core concepts (e.g. politics, rights and obligations, justice, liberty) to specific issues.
- Analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
- Recognize the diversity of political motivations and interests of others.
- Identify ways to exercise the rights and responsibilities of citizenship

Designator	Title of course	Core(s)
Phil 1001	Intro to Phil/	E & CR
*Pol 1001	Amer.Govt	E & CR

*(Instructor has not yet agreed that 51% of the competencies are met in significant portions in the course.)

10. PEOPLE AND THE ENVIRONMENT P & E

Goal: To improve students' understanding of today's complex environmental challenges. Students will examine the inter-relatedness of human society and the natural environment. Knowledge of both bio-physical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.

Student competencies: Students will be able to:

- Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
- Discern patterns and interrelationships of bio-physical and socio-cultural systems.
- Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
- Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions. propose and assess
- Alternative solutions to environmental problems.
- Articulate and defend the actions they would take on various environmental issues.

Designator	Title of course	Core(s)
Biol 1009	General Biol	P & E
*Chem 1001	Intro Chem	P & E
*Chem 1021	Chem Prin. I	P & E

*(Instructor has not yet agreed that 51% of the competencies are met in significant portions in the course.)

