

Description of MnTC Goal Areas

Goal 1: Communication

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.

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.

English Composition: One or two courses (4-8 credits)

Speech/Communication: One course (3 credits)

Total: 7-11 credits

Goal 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.

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.

This goal is often fulfilled automatically when all of the goal areas are completed. However, some institutions may require completion of one or more courses in this goal area.

Goal 3: Natural Sciences

Goal: 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.

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.

Institutions require two science courses (e.g., one biological and one physical science). One course must have a traditional lab and the other must have a traditional lab or lab-like experience.

Biological Science: One course (3-4 credits)

Physical Science: One course (3-4 credits)

Total: Two courses (7-8 credits)

Goal 4: Mathematics/Logical Reasoning

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.

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.

A college-level math or logical reasoning course is usually required depending on the student's long-term major.

Math: One course (3-5 credits)

or

Logic: One course (3 credits)

Total: One course (3-5 credits)

Goal 5: History and the Social and Behavioral Sciences

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.

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.

Three courses are typically required. Some institutions require courses from three different subject areas or they may require at least one social and one behavioral science course. Common subjects are Anthropology, Economics, Geography, History, Political Science, Sociology, and Psychology.

Total: Three courses (6-9 credits)

Goal 6: The Humanities and Fine Arts

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.

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 a 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.

Three courses are typically required. Some institutions require courses from three different subject areas or they may require at least one fine arts and one humanities course. Common courses are Art, English (literature), Humanities, Music, Philosophy (except logic), and Theatre.

Total: Three courses (6-9 credits)

Goal 7: Human Diversity

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.

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.

Total: One course (3 credits)

Goal 8: Global Perspective

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.

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.

Total: One course (3 credits)

Goal 9: Ethical and Civic Responsibility

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 others' positions, be part of the free exchange of ideas, and function as public-minded citizens.

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.

Total: One course (3 credits)

Goal 10: People and the Environment

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.

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.

Total: One course (3 credits)

Total credits to complete the MnTC ten goal areas: 40 credits

- Some courses may be certified to complete up to two different goals at the same time, but credits are only counted once. Additionally, some courses may fulfill a third goal if it is Goal 2: Critical Thinking.
- If you follow an Associate in Science (AS), Associate in Fine Arts (AFA), or an Associate in Applied Science (AAS), you will have a different set of distribution requirements from those in the sample. Contact a [transfer specialist](#) for more information.
- Institutions' MnTC requirements may deviate from the sample program.