

R470 Appendix, Essential Learning Outcomes¹

~~**1. Written Communication:** Over the course of six credit hours, students will demonstrate skill with the following:~~

~~**2.0 Context and Purpose for Writing:** Includes consideration of audience, purpose, and the circumstances surrounding the writing task(s);~~

~~**5.0 Content Development:** Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work;~~

~~**8.0 Genre and Disciplinary Conventions:** Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, formatting, and stylistic choices;~~

~~**11.0 Sources and Evidence:** Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing;~~

~~**1.6 Control of Syntax and Usage:** Uses language that skillfully communicates meaning to readers with clarity and fluency; and~~

~~—— **1.7 Revision and Feedback:** Shapes texts through the process of revision and feedback. Traditionally, this requirement has been fulfilled by completion of both ENGL 1010 Introduction to Writing, and either ENGL 2010 Intermediate Writing or ENGL 2100 Technical Writing.~~

18.1. Core General Education Areas

18.1.1.1. *Written Communication:* Upon successful completion of the General Education Written Communication requirement, students will be able to:

1.1.1 *Sources and Evidence:* Locate, evaluate, and integrate credible and relevant sources to achieve various writing purposes;

1.1.2 *Genre Awareness:* Demonstrate critical and conceptual awareness of genre in reading and

¹ Adopted December 1, 2023; amended November 21, 2024.

writing—including organization, content, presentation, formatting, and stylistic choices;

1.1.3 *Context and Purpose:* Analyze rhetorical situations and adapt to the audience, purpose, modalities, and the circumstances surrounding a range of reading and writing tasks;

1.1.4 *Language Awareness and Usage:* Recognize and make intentional, critical, and contextually-informed language choices across a range of rhetorical contexts/situations; and

1.1.5 *Recursive Writing Processes:* Develop flexible, iterative, and reflective processes for invention, drafting, workshopping, and revision.

1.1.6 *This requirement can be fulfilled by completion of both ENGL 1010 and either ENGL 2010 or ENGL 2020, or other institutionally approved courses.*

1.2 **Quantitative Literacy:** Upon successful completion of the General Education Quantitative Literacy requirement, students will be able to:

1.2.1 *Communicate:* Use correct terminology and proper notation to explain quantitative or mathematical relationships (equations, graphs, diagrams, tables, data) and to support an argument, assertion, or purpose using quantitative or mathematical evidence;

1.2.2 *Mathematization:* Convert quantitative or mathematical information into appropriate mathematical representations and/or models such as equations, graphs, diagrams, or tables, including making and evaluating important assumptions as needed;

1.2.3 *Calculation:* Use algebraic skills and techniques to solve problems, including the ability to identify and correct errors in calculations and understanding the role and proper use of technology in assisting with calculations;

1.2.4 *Analysis:* Draw appropriate conclusions through quantitative or mathematical analysis of data or models, including understanding and evaluating important assumptions in order to recognize the limits of the analysis; and

1.2.5 *Application / Creation:* Solve concrete and abstract problems across multiple disciplines.

1.2.6 *This requirement can be fulfilled by completion of MATH 1030, MATH or STAT 1040, MATH 1050, or another institutionally approved course.*

1.3 **American Institutions:** Upon successful completion of the General Education American Institutions requirement, students will be able to:

1.3.1 *Synthesize:* Analyze, contextualize, and interpret primary and secondary source documents to understand the history, principles, form of government, and economic system of the United States;

1.3.2 *Sources and Evidence:* Locate, evaluate, and use historically, politically, and economically relevant information and data to develop and enhance information literacy and research skills;

1.3.3 *Communicate:* Communicate effectively about the history, principles, form of government, multicultural populations, and economic system of the United States;

- 1.3.4 Examine: Engage diverse viewpoints that contribute to a constructive dialogue about the history, principles, form of government, and economic system of the United States; and
- 1.3.5 Apply: Apply historical, political, and economic perspectives and methods as appropriate to address big questions or threshold concepts pertaining to the history, political system, and economic system of the United States.
- 1.3.6 This requirement can be fulfilled by completion of ECON 1740, HIST 1700, HIST 2700 & HIST 2710, POLS 1100, or another institutionally approved course.

2. Quantitative Literacy: Students may satisfy this requirement by completing at least one institution-approved Quantitative Literacy course that clearly demonstrates quantitative reasoning skills beyond those found within required high school courses and that is at an appropriate introductory university level. Approved courses will significantly focus on the following:

2.1 Interpretation: Explain information presented in mathematical forms, e.g., equations, graphs, diagrams, and tables;

2.2 Representation: Convert relevant information into various mathematical forms, e.g., equations, graphs, diagrams, and tables;

2.3 Calculation: Demonstrate the ability to successfully complete basic calculations to solve problems;

2.4 Application/Analysis: Make judgments and draw appropriate conclusions based on quantitative analysis of data, recognizing the limits of this analysis;

2.5 Assumption: Make and evaluate important assumptions in estimation, modeling, and data analysis;

2.6 Communication: Express quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized); and

2.7 Creation: Demonstrate the ability to problem-solve using quantitative literacy across multiple disciplines. Traditionally, this requirement has been fulfilled by completion of MATH 1030 Quantitative Reasoning, MATH or STAT 1040 Statistics, MATH 1050 College Algebra, or another institutionally approved course.

3. American Institutions: Approved courses will address the following:

~~**3.1 Use of Primary Documents:** Analyze, contextualize, and use primary source documents to understand the history, principles, form of government, and economic system of the United States;~~

~~**3.2 Interpretation:** Explain and use historically, politically, and economically relevant information;~~

~~**3.3 Communication:** Communicate effectively about the history, principles, form of government, and economic system of the United States;~~

~~**3.4 Diversity:** Engage a diversity of viewpoints in a constructive manner that contributes to a dialogue about the history, principles, form of government, and economic system of the United States; and~~

~~**3.5 Integration:** Use historical, political, and economic methods to come to an understanding of the United States that integrates those viewpoints. This requirement may be fulfilled by a discrete course, a multidisciplinary integrated course, or multiple courses. Traditionally, this requirement has been fulfilled by completion of ECON 1740 Economic History of the United States, HIST 1700 American Civilization, HIST 2700 United States to 1877, HIST 2710 United States 1877 to Present, POLS 1100 American/US National Government, or another institutionally approved course.~~

2. General Education Breadth Areas

~~**4.1 Arts:** Courses with the GE Arts designation will generally reflect criteria such as:~~

~~**4.1.1** Discuss the scope and variety of the fine arts, e.g., art, music, theatre, or dance;~~

~~**4.1.2** Recognize the aesthetic standards used in making critical judgments in various artistic fields;~~

~~**4.1.3** Analyze and articulate understanding of a range of artistic processes;~~

~~**4.1.4** Participate in and/or appreciate an introductory performance, production, or design experience in the arts; or~~

~~**4.1.5** Demonstrate how the creative process is informed and limited by social and historical contexts.~~

2.1 Arts: Upon successful completion of the General Education Arts requirement, students will be able to:

- 2.1.1 Understand: Explain the creative artistic process as an iterative and recursive practice culminating in an expression of human experience and emotion through a medium;
- 2.1.2 Appreciate: Apply artistic concepts and ideas drawn from traditions of artistic creation and theory to better engage with, analyze and understand a creative work;
- 2.1.3 Connect: Examine connections between art and society and articulate how the arts are a historical and cultural phenomenon.

4.2 Humanities: Courses with the GE Humanities designation will generally reflect criteria such as:

4.2.1 ~~Derive evidence from primary sources regarding the complexities and changes in human experience through analytical reading and critical thought;~~

4.2.2 ~~Describe how human experience is shaped by social, cultural, linguistic, and/or historical circumstances;~~

4.2.3 ~~Demonstrate attentiveness to linguistic, visual, and/or audio texts when communicating meaning; or~~

4.2.4 ~~Use appropriate verbal, perceptual, or imaginative skills when organizing meanings, developing a sense of self, and balancing potentially disparate values.~~

2.2 Humanities: Upon successful completion of the General Education Humanities requirement, students will be able to:

2.2.1 Examine: Examine how humanities artifacts (such as oral narratives, literature, philosophy, media, and artworks) express the human condition;

2.2.2 Explain: Explain how humanities artifacts take on meaning within networks or systems (such as languages, cultures, values, and worldviews) that account for the complexities and uncertainties of the human condition;

2.2.3 Analyze: Analyze humanities artifacts according to humanities methodologies, such as a close analysis, questioning, reasoning, interpretation, and critical thinking;

2.2.4 Compare and Contrast: Compare and contrast diverse humanistic perspectives across cultures, communities, and/or time periods to explain how people make meaning of their lives; and

2.2.5 Apply: Using humanities perspectives, reflect on big questions related to aesthetics, values, meaning, and ethics and how those apply to their own lives.

4.3 Life Sciences: Courses with the GE Life Sciences designation will generally reflect criteria such as:

~~4.3.1 Demonstrate understanding of science as a way of knowing about the natural world;~~

~~4.3.2 Demonstrate a basic understanding of how organisms live, grow, respond to their environment, and reproduce;~~

~~4.3.3 Discuss the organization and flow of matter and energy through biological systems;~~

~~4.3.4 Explain from evidence patterns of inheritance, structural unity, adaptation, and diversity of life on Earth; or~~

~~4.3.5 Describe how the life sciences have shaped and been shaped by historical, ethical, and social contexts.~~

2.13.2.3 *Life Sciences:* Upon successful completion of the General Education Life Sciences requirement, students will be able to:

2.13.12.3.1 *Apply Scientific Methods:* Describe and apply approaches to scientific discovery and interpretation of experimental data;

2.13.22.3.2 *Understand:* Demonstrate understanding of matter, energy, and their influence on biological systems;

2.13.32.3.3 *Apply Knowledge:* Describe and apply evolutionary concepts in terms of inheritance, adaptation, and diversity of life;

2.13.42.3.4 *Explain:* Explain the mechanisms of information storage, expression, and exchange in living organisms or eco-systems; and

2.13.52.3.5 *Reflect:* Reflect on the relevance of life sciences in a broader context.

~~4.4 Physical Sciences: Courses with the GE Physical Sciences designation will generally reflect criteria such as:~~

~~4.4.1 Demonstrate understanding of science as a way of knowing about the physical world;~~

~~4.4.2 Demonstrate understanding of forces in the physical world; Discuss the flow of matter and energy through systems (in large and small scales);~~

~~4.4.3 Develop evidence-based arguments regarding the effect of human activity on the Earth; or~~

~~4.4.4 Describe how the physical sciences have shaped and been shaped by historical, ethical, and social contexts.~~

2.4 Physical Sciences: Upon successful completion of the General Education Physical Sciences requirement, students will be able to:

2.4.1 Explain scientific methods: Explain science as a process and as a way of understanding the physical world;

2.4.2 Understand: Demonstrate understanding of matter, energy, and their influence on physical systems;

2.4.3 Evaluate: Evaluate the credibility of various sources of information about science-related issues; and

2.4.4 Apply: Describe how the Physical Sciences utilize their foundational principles to confront and solve pressing local and global challenges, shaping historical, ethical, or social landscapes in the process.

4.5 Social and Behavioral Sciences: Courses with the GE Social and Behavioral Sciences designation will generally reflect criteria such as:

~~4.5.1 Demonstrate understanding of social and behavioral science methods, concepts, and theories;~~

~~4.5.2 Formulate basic questions about social behavior and phenomena through interpretive and systematic analyses;~~

~~4.5.3 Develop empirically derived and theoretically informed explanations of human behavior in both its individual and collective dimensions; or~~

~~4.5.4 Demonstrate a critically reasoned understanding of social patterns and individual variation congruent with and divergent from those patterns.~~

2.5 Social and Behavioral Sciences: Upon successful completion of the General Education Social and Behavioral Sciences requirement, students will be able to:

2.5.1 Examine: Examine institutions and human behavior through social and behavioral concepts, methods, or theories;

~~2.32.1~~2.5.2 Analyze: Identify diverse perspectives to explore and examine social and behavioral phenomena; and

~~2.32.2~~2.5.3 Apply: Apply discipline-relevant and scientific theories and methods to make inferences about or applications to social and behavioral phenomena at personal, institutional, or cultural levels.