

# **UMBC GENERAL EDUCATION FUNCTIONAL COMPETENCIES**

UMBC's General Education program prepares undergraduate students for success in their academic majors and professional pursuits and for life as informed, responsible citizens of the 21st century. It provides a solid academic foundation in four broad areas (Arts and Humanities, Mathematics and Sciences, Social Sciences, and Language and Culture), addressed through the distribution requirements, and includes two required writing courses. In addition, to ensure that students develop and master certain fundamental skills and intellectual habits of mind, it also requires that all courses address one or more of the following functional competencies: Oral and Written Communication, Scientific and Quantitative Reasoning, Critical Analysis and Reasoning, Technological Competency, and Information Literacy. These competencies have been developed as recommended standards for General Education programs and have been adopted by the Maryland Higher Education Commission for colleges and universities in Maryland.

All UMBC General Education courses should address one or more of the following competencies:

## **1. ORAL AND WRITTEN COMMUNICATION.**

- Understand and apply both the verbal and nonverbal aspects of communication, by utilizing fundamental rhetorical strategies and conventions, such as purpose, audience, genre, tone, format, and structure.
- Understand writing as a process that involves multiple drafts, incorporating feedback, revising, editing, and proofreading.
- Identify, select, and evaluate appropriate sources, including print and electronic texts, cultural artifacts, or artistic creations.
- Acknowledge and document sources used to support an argument or presentation.
- Develop a foundation for cross-cultural communication.

## **2. SCIENTIFIC AND QUANTITATIVE REASONING.**

- Understand and use mathematical and scientific methods of inquiry, reasoning, processes, and strategies to investigate and solve problems.
- Organize, interpret, draw inferences, and make predictions about natural or behavioral phenomena using mathematical and scientific models and theories.
- Recognize the ethical and social implications of scientific inquiry and technological change and distinguish science from non-science and pseudoscience.
- Recognize that mathematical, statistical, and scientific evidence requires evaluation.

### **3. CRITICAL ANALYSIS AND REASONING.**

- Identify and formulate questions and problems and evaluate various methods of reasoning and verification.
- Identify and evaluate stated and unstated assumptions, supporting evidence and data, alternative points of view, and assess implications and consequences of particular courses of action.
- Construct cogent arguments, provide supporting evidence, articulate reasoned judgments, and draw appropriate conclusions.
- Apply fundamental critical thinking skills to the analysis and interpretation of a variety of subjects, including ideas and issues, cultural artifacts, or aesthetic works.

### **4. TECHNOLOGICAL COMPETENCY**

- Use information technology as one tool for solving problems, identifying and evaluating information sources, analyzing reports and presentations.
- Use a variety of online or technology-assisted means to present work, such as web pages, email, online forums, word processing, and presentation and spreadsheet software.
- Understand the essentials of technology, including hardware and software, networks, and systems.

### **5. INFORMATION LITERACY.**

- Identify and access a variety of documentary sources of information effectively and efficiently via traditional and electronic-based retrieval systems.
- Evaluate information sources and content in terms of accuracy, authority, bias, and relevance.
- Use information effectively to support a particular argument or to produce a result.
- Respect and observe appropriate laws and institutional policies regarding the legal and ethical retrieval and use of information.