General Education Learning Outcomes

Implementation of the new General Education program is scheduled for Fall 2011 and one of the first steps in realizing this program is the definition of its learning outcome goals. During the summer of 2010, 12 committees were convened and charged with, among other things, defining the specific learning outcomes that will characterize courses fulfilling the General Education categories. Sixty-seven members of the campus community agreed to serve on these committees. What follows is the result of their work. We invite your feedback to Donna Hamilton, Dean for Undergraduate Studies, or Douglas Roberts, Associate Dean for General Education. This document is also posted at http://www.ugst.umd.edu.

Fundamental Studies

Academic Writing

The Fundamental Studies Introduction to Writing requirement prepares students with a foundational understanding of academic writing and the skills for success in further studies at Maryland and beyond.

On completion of an Academic Writing course, students will be able to:

- Demonstrate understanding of writing as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate sources, and as a process that involves composing, editing, and revising.
- Demonstrate critical reading and analytical skills, including understanding an argument's major assertions and assumptions and how to evaluate its supporting evidence.
- Demonstrate facility with the fundamentals of persuasion as these are adapted to a variety of special situations and audiences in academic writing.
- Demonstrate research skills, integrate their own ideas with those of others, and apply the conventions of attribution and citation correctly.
- Use Standard Written English and edit and revise their own writing for appropriateness. Students should take responsibility for such features as format, syntax, grammar, punctuation, and spelling.
- Demonstrate an understanding of the connection between writing and thinking and use writing and reading for inquiry, learning, thinking, and communicating in an academic setting.

Professional Writing

The Fundamental Studies Professional Writing requirement strengthens writing skills and prepares students for the range of writing expected of them after graduation.
On completion of a Professional Writing course, students will be able to:

- Analyze a variety of professional rhetorical situations and produce appropriate texts in response.
- Understand the stages required to produce competent, professional writing through planning, drafting, revising, and editing.
- Identify and implement the appropriate research methods for each writing task.
- Practice the ethical use of sources and the conventions of citation appropriate to each genre.
- Write for the intended readers of a text, and design or adapt texts to audiences who may differ in their familiarity with the subject matter.
- Demonstrate competence in Standard Written English, including grammar, sentence and paragraph structure, coherence, and document design (including the use of the visual) and be able to use this knowledge to revise texts.
- Produce cogent arguments that identify arguable issues, reflect the degree of available evidence, and take account of counter arguments.

**Oral Communication**

*Human relationships, from the most formal to the most personal, rest in large measure on skilled listening and effective speaking. Skillful listening and speaking support success in personal relationships, educational undertakings, professional advancement, and civic engagement.*

On completion of an Oral Communication course, students will be able to:

- Demonstrate an understanding of the role of oral communication in academic, social, and professional endeavors.
- Demonstrate effectiveness in using verbal and nonverbal language appropriate to the goal and the context of the communication.
- Demonstrate an ability to listen carefully.
- Demonstrate an enhanced awareness of one’s own communication style and choices.
- Demonstrate an ability to communicate interpersonally and interculturally with others in conversation, interview, and group discussion contexts.
- Demonstrate skill in asking and in responding to questions.
- Demonstrate competency in planning, preparing, and presenting effective oral presentations.
- Use effective presentation techniques including presentation graphics.
- Demonstrate awareness of communication ethics in a global society.

**Mathematics**

*The Fundamental Studies Mathematics requirement prepares students with the mathematical understandings and skills for success in whatever majors they choose, as well as in everyday life.*

On completion of a Mathematics course, students will be able to:

- Interpret mathematical models given verbally, or by formulas, graphs, tables, or schematics, and draw inferences from them.
• Represent mathematical concepts verbally, and, where appropriate, symbolically, visually, and numerically.
• Use arithmetic, algebraic, geometric, technological, or statistical methods to solve problems.
• Use mathematical reasoning with appropriate technology to solve problems, test conjectures, judge the validity of arguments, formulate valid arguments, check answers to determine reasonableness, and communicate the reasoning and the results.
• Recognize and use connections within mathematics and between mathematics and other disciplines.

Analytic Reasoning
Courses in Analytic Reasoning will foster a student’s ability to use mathematical or formal methods or structured protocols and patterns of reasoning to examine problems or issues by evaluating evidence, examining proofs, analyzing relationships between variables, developing arguments, and drawing conclusions appropriately. Courses in this category will also advance and build upon the skills that students develop in Fundamental Mathematics. For most courses here, a course taken for the Fundamental Mathematics requirement is a prerequisite.

On completion of an Analytic Reasoning course, students will be able to:
• Demonstrate proficient application of the skills required by the Mathematics Fundamental Studies requirement, including the ability to communicate using formal or mathematical tools.
• Distinguish between premises and conclusions, or between data and inferences from data.
• Understand the differences among appropriate and inappropriate methods for drawing conclusions.
• Apply appropriate methods to evaluate inferences and to reason about complex information.
• Systematically evaluate evidence for accuracy, limitations, and relevance, and identify alternative interpretations of evidence.
• Use formal, analytical, or computational techniques to address real-world problems.

The I-Series
As the centerpiece of the University’s new General Education program, I-Series courses will become the intellectual and pedagogical marker for which the University of Maryland is known: broad, analytical thinking about significant issues. In branding the University’s General Education curriculum, the signature courses begin the process of defining what is unique about education at the University of Maryland. Through these courses, students will be challenged from their first moments on campus to master the intellectual tools needed to wrestle with matters of great weight and consequence, the so-called Big Questions.
A signature course could take students inside a new field of study, where they may glimpse the utility, elegance and beauty of disciplines that were previously unknown, unwanted, disparaged, or despised. Students may be able to see how such areas of investigation could become a subject for extended study,
a major, or even a lifetime commitment. By addressing both contemporary problems and the enduring issues of human existence, the signature courses will speak to the University's historic role both as a timeless repository of human knowledge and as a source of solutions to burning issues of the day. At their best, the signature courses might do both. The I-Series offers extraordinary opportunities for increasing the level of intellectual discourse on campus and for providing occasions where new pedagogical methods may be introduced. The possibilities are large and exciting.

On completion of an I-Series course, student will be able to:
• Identify the major questions and issues in their I-series course topic.
• Describe the sources the experts on the topic would use to explore these issues and questions.
• Demonstrate an understanding of basic terms, concepts, and approaches that experts employ in dealing with these issues.
• Demonstrate an understanding of the political, social, economic, and ethical dimensions involved in the course.
• Communicate major ideas and issues raised by the course through effective written and/or oral presentations.
• Articulate how this course has invited them to think in new ways about their lives, their place in the University and other communities, and/or issues central to their major disciplines or other fields of interest.

**Distributive Studies**

**History and Social Sciences**
Courses in this area introduce students to history and to the social science disciplines and their combination of qualitative and quantitative methods. It includes courses in criminology, economics, history, psychology, sociology, and other social sciences.

On completion of a History and Social Sciences course, students will be able to:
• Demonstrate knowledge of fundamental concepts and ideas in a specific topical area in history or the social sciences.
• Demonstrate understanding of the methods that produce knowledge in a specific field in history or the social sciences.
• Demonstrate critical thinking in evaluating causal arguments in history or in the social sciences, analyzing major assertions, background assumptions, and explanatory evidence.
• Explain how culture, social structure, diversity, or other key elements of historical context have an impact on individual perception, action, and values.
• Articulate how historical change shapes ideas and social and political structures.
• Explain how history or social science can be used to analyze contemporary issues and to develop policies for social change.
• Use information technologies to conduct research and to communicate effectively about social science and history.
**Humanities**

Courses in the foundational humanities disciplines study history and the genres of human creativity. It includes courses in literatures in any language, art, art history, classics, history, music, and music history as well as courses in the foundational disciplines of linguistics and philosophy.

On completion of a Humanities course, students will be able to:

- Demonstrate familiarity and facility with fundamental terminology and concepts in a specific topical area in the humanities.
- Demonstrate understanding of the methods used by scholars in a specific field in the humanities.
- Demonstrate critical thinking in the evaluation of sources and arguments in scholarly works in the humanities.
- Describe how language use is related to ways of thinking, cultural heritage, and cultural values.
- Conduct research on a topic in the humanities using a variety of sources and technologies.
- Demonstrate the ability to formulate a thesis related to a specific topic in the humanities and to support the thesis with evidence and argumentation.

**Natural Sciences**

Courses in the Natural Sciences introduce students to the concepts and methods of the disciplines studying the natural world. It includes courses in the traditional physical and life sciences, environmental science, animal and avian science, and plant science, among others. It also includes a substantial, rigorous laboratory experience.

On completion of a Natural Sciences course, students will be able to:

- Demonstrate a broad understanding of scientific principles and the ways scientists in a particular discipline conduct research.
- Apply quantitative, mathematical analyses to science problems.
- Solve complex problems requiring the application of several scientific concepts.
- Look at complex questions and identify the science and how it impacts and is impacted by political, social, economic, or ethical dimensions.
- Critically evaluate scientific arguments and understand the limits of scientific knowledge.
- Communicate scientific ideas effectively.

In addition to the Learning Outcomes above, on completion of a Natural Sciences course with a laboratory experience students will be able to:

- Demonstrate proficiency in experimental science by: making observations, understanding the fundamental elements of experiment design, generating and analyzing data using appropriate quantitative tools, using abstract reasoning to interpret data and relevant formulae, and testing hypotheses with scientific rigor.
Scholarship in Practice
Courses in Scholarship in Practice teach students how to assess and apply a body of knowledge to a creative, scholarly, or practical purpose. The resulting application should reflect an understanding of how underlying core disciplines can be brought to bear on the subject. It should go beyond the traditional survey and interpretation that culminate in, for example, a final research paper or activity often used in courses that are designed to be introductions to a specific topic or area of study.

While Scholarship in Practice courses will be evaluated for appropriateness through the learning outcomes listed below, essentially every college on this campus has relevance to this area of Distributive Studies. Examples include (but are not limited to) the following: courses in Business that focus on the design of productive systems and enterprises, drawing upon knowledge from economics, psychology, mathematics, and other disciplines; courses in Engineering that require students to design environments, technologies, and systems by applying knowledge from the natural sciences and mathematics; courses in Education, Journalism and Architecture that provide students with an opportunity to engage in well defined professional practices; courses in Studio Art, Music Performance, Dance, etc., that introduce students to creative skills and performance arts; applied proficiency in a foreign language; extensive research experiences; and internships.

On completion of a Scholarship in Practice course, students will be able to:
• Demonstrate an ability to select, critically evaluate, and apply relevant areas of scholarship.
• Articulate the processes required to bring about a successful outcome from planning, modeling, and preparing, to critiquing, revising and perfecting.
• Demonstrate an ability to critique existing applications of scholarship, in order to learn from past successes and failures.
• Demonstrate an ability to collaborate in order to bring about a successful outcome.
• Recognize how an application of scholarship impacts or is impacted by political, social, cultural, economic or ethical dimensions.
• Produce an original analysis, project, creative work, performance or other scholarly work that reflects a body of knowledge relevant to the course.
• Effectively communicate the application of scholarship through ancillary material (written, oral, visual and/or all modes combined).

Diversity

Understanding Plural Societies
Life in a globally competitive society of the twenty-first century requires an ability to comprehend both theoretical and practical dimensions of human difference. From that perspective, Understanding Plural Societies is the centerpiece of the University’s Diversity requirement. Courses in this category speak to both the foundations—cultural, material, psychological, historical, social, and biological—of human difference and the operation or function of plural societies.
On completion of an Understanding Plural Societies course, students will be able to:

• Demonstrate understanding of the basis of human diversity: biological, cultural, historical, social, economic, or ideological.
• Demonstrate understanding of fundamental concepts and methods that produce knowledge about plural societies.
• Explicate the processes that create or fail to create just, productive, egalitarian, and collaborative societies.
• Analyze forms and traditions of thought or expression in relation to cultural, historical, political, and social contexts, as, for example, dance, foodways, literature, music, and philosophical and religious traditions.
• Articulate how particular policies create or inhibit the formation and functioning of plural societies.
• Use a comparative, intersectional, or relational framework to examine the experiences, cultures, or histories of two or more social groups or constituencies within a single society or across societies, and within a single historical timeframe or across historical time.
• Use information technologies to access research and communicate effectively about plural societies.

Cultural Competence

Cultural competence is the ability to demonstrate skills necessary to work with diverse individuals and teams. More specifically, cultural competence covers the following: awareness of one's own culture; knowledge of different cultural practices; and cross-cultural skills. Cultural competency contributes to an individual’s ability to understand diversity, communicate effectively, and approach issues with a global world view.

On completion of a Cultural Competency course, students will be able to:

• Describe the concept of culture.
• Explain how cultural beliefs influence behaviors and practices at the individual, organizational, or societal levels.
• Analyze their own cultural beliefs with respect to attitudes or behaviors.
• Compare and contrast differences among two or more cultures.
• Effectively use skills to negotiate cross-cultural situations or conflicts.