# **UHM General Education**

### Foundations Hallmarks and Explanatory Notes

GEC approved modified FG Hallmark 5: 04/04/06 Foundations Board approved Explanatory Notes: FG, 01/27/06; FW, 04/21/06; FS, 09/19/06

# Global and Multicultural Perspectives (FG): 6 credits, 2 courses

FG Hallmarks & Explanatory Notes (Hallmarks in bold; Notes in italics)

To satisfy the Global and Multicultural Perspectives requirement, a course will

- provide students with a large-scale analysis of human development and change over time. (Note: the two FG courses will together cover the whole time period from pre-history to present.
  - The course must fall into one of the following categories: Group A (content primarily before 1500 CE), B (content primarily after 1500 CE), or C (pre-history to present)
- 2. analyze the development of human societies and their cultural traditions through time in different regions (including Africa, the Americas, Asia, Europe, and Oceania) and using multiple perspectives.
  - Students will study multiple perspectives across time, space, and cultures. Some of the cultural material studied should reflect cultural differences.
  - The course should not be solely about a people or a country; it needs to be a global course.
  - Clear emphasis on multiple ideologies and methodologies (e.g., capitalism vs. socialism, individualism vs. communalism, globalism vs. protectionism, or humanistic vs. scientific).
- 3. offer a broad, integrated analysis of cultural, economic, political, scientific, and/or social development that recognizes the diversity of human societies and their cultural traditions.
  - The course should offer an integrative perspective on global change and diverse cultural traditions.
  - The course should identify common themes across multiple cultures.
  - The course should recognize diversity (examples could include within and between cultures and religions, subcultures within political units, or socio-economic class differences).
- 4. examine processes of cross-cultural interaction and exchange that have linked the world's peoples through time while recognizing diversity.
  - The course should address how processes of interaction have shaped the world's cultural mosaic through time.
  - The course should convey an understanding of how unique cultural traditions have survived cross-cultural interactions as well as how cultures have been changed through interaction.
  - The proposal should clearly identify the parts of the course that are cross-cultural, rather than isolating cultural groups or characteristics.
  - Dimensions of cross-cultural interaction such as religion should be examined as well as modes of interaction, e.g., migration, conquest, and trade.
- 5. include at least one component on Hawaiian, Pacific, or Asian societies and their cultural traditions.
  - Students will study the development of unique cultural traditions and cross-cultural interactions from a wide variety of regions including Hawaii, the Pacific, or Asia.
- 6. engage students in the study and analysis of writings, narratives, texts, artifacts, and/or practices that represent the perspectives of different societies and cultural traditions.
  - Students will gain an appreciation of the multiplicity of sources; there should be some balance between western and non-western sources of information (e.g., documents and text, oral traditions and performances, art, archaeological artifacts at different scales, paleontological remains, paleoenvironmental materials, or cultural landscapes).
  - Students will learn how to identify, assess, and analyze various sources of information on cultural behaviors, to organize them into systems of meaning, and to evaluate conclusions relative to the kinds of information available.
  - Students will learn how different materials can reveal different aspects of contemporary and past human development.

## Foundations Hallmarks and Explanatory Notes

## Symbolic Reasoning (FS): 3 credits

FS Hallmarks & Explanatory Notes (Hallmarks in bold; Notes in italics)

Introduction: Courses in Symbolic Reasoning (FS) should present symbolism as a means to facilitate reasoning and not merely as a technique to represent course content. They should engage students in the active use and application of symbolic techniques, but should not present the use of symbolization strategies and techniques in a strictly mechanical way. Rather, they should focus on presenting concepts and tools of symbolic reasoning to further understanding of the course material. The majority of a FS course should address issues of symbolic reasoning, and impart an appreciation of the power and clarity that such reasoning brings to our thinking and understanding. Courses that apply for the FS designation should meet all six hallmarks.

To satisfy the Symbolic Reasoning requirement, a course will

- 1. expose students to the beauty, power, clarity and precision of formal systems.
  - Students should understand the impact of formal or symbolic reasoning in its application to other disciplines and/or its historical place in civilization.
  - An objective of the FS requirement is to enhance students' appreciation of abstraction and formal systems of analysis and to elevate their power of critical thinking through logical analysis and use of evidence.
  - Students may be exposed to the power, clarity and precision of formal systems by reading and understanding proofs, derivations of formulae, or expositions of applications. Students may also be exposed to the power, clarity and precision of formal systems by constructing proofs (including symbolic proofs of validity), deriving formulas of appreciable applicability, or justifying the uses of applications in concrete context. In any of these situations, formal reasoning and/or symbolism should play a significant or essential role.
  - The exposure to the beauty of formal systems can be provided by the presentation of elegant proofs, tricky, i.e., creative, applications of formulae, or the derivation of unexpected applications.

#### 2. help students understand the concept of proof as a chain of inferences.

- A non-trivial component of the course should be deductive proof.
- Students should be required to demonstrate an understanding of the difference between a correct and incorrect proof.
- Students should understand the distinction between inductive and deductive, formal and informal reasoning.
- Students should be familiar with all aspects of basic argumentation: (1) the recognition of premises, given statements or hypothesis, (2) the recognition of the conclusion as well as noticing that a proof has appropriately come to an end since the conclusion has been justified, (3) the recognition of the application of the principles of logic to the premises, earlier steps or recognized truths to justify subsequent steps.
- Students should be able to construct formal arguments and be expected to justify most steps of an argument.

#### 3. teach students how to apply formal rules or algorithms.

- Students should be able to correctly apply rules of a formal system.
- Students should be introduced to a process of applying formal rules, so that students will
  understand the importance of paying attention to detail and why precision is crucial, and how rule
  generation works in carrying out mechanical, logical, and/or computational procedures.
- 4. require students to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.
  - Students should be able to recognize the elements, structure and standards of rigorous arguments and distinguish between correct and incorrect argument.
  - Students should be able to recognize appropriate and inappropriate use of words and symbolism, statements as opposed to meaningless sentences, valid and invalid arguments, as well as valid and invalid applications of symbolic reasoning.
- 5. not focus solely on computational skills.
  - Students should be challenged to use symbolic trails of reasoning not only minimally but in maximally efficient and elegant ways.
  - Students should not be simply trained in mechanical, computational or formulaic techniques.

## Foundations Hallmarks and Explanatory Notes

## FS (cont'd)

- 6. build a bridge from theory to practice and show students how to traverse this bridge.
  - Students should be able to abstract from a real-world situation to formal, symbolic representation.
  - Students should be able to translate word problems or arguments into an appropriate symbolic formalism.
  - Students should see the development of a "useful" application from a theoretical or formal idea. In that development it should be made especially clear that the use of symbolism facilitated the exposition that lead from theory to practice.
  - Students will learn that arguments and procedures expressed in ordinary language can be checked with great precision by placing the reasoning patterns in symbolic form and manipulated via symbolic rules of inference.

# Written Communication (FW): 3 credits

FW Hallmarks & Explanatory Notes (Hallmarks in bold; Notes in italics)

To satisfy the Written Communication requirement, a course will

- 1. introduce students to different forms of college-level writing, including, but not limited to, academic discourse, and guide them in writing for different purposes and audiences.
  - The primary goal of W Foundations classes is learning to write. Course reading should serve as a basis for writing rather than as a body of material to be mastered per se.
  - The primary reading focus should be on expository texts. The course should consider a variety of college-level readings (e.g. summary/abstract, narrative, analysis, argument).
- 2. provide students with guided practice of writing processes–planning, drafting, critiquing, revising, and editing–making effective use of written and oral feedback from the faculty instructor and from peers.
  - There should be a coherent sequence of various types of writing studied and assigned in the course. Generally, such a sequence will move from presumably simpler to more complex rhetorical tasks (e.g. from summary to analysis/interpretation to argument, or from narrative/serialization to comparative analysis to research-based inquiry).
  - Types of interaction concerning student writing will vary and may include in-class collaborative group work (including online or hybrid instruction), instructor/student conferencing (in person and/or online), student/student peer review, and tutorial feedback as available.
- 3. require at least 5000 words of finished prose-equivalent to approximately 20 typewritten/printed pages.
  - "Finished prose" is defined as writing which has received peer and/or instructor feedback, has usually undergone student revision, and has been formally evaluated by the instructor. Writing such as journal entries, e-mail letters, pre-writing exercises, unrevised in-class writing, or feedback to peers should not normally be considered "finished prose."
- 4. help students develop information literacy by teaching search strategies, critical evaluation of information and sources, and effective selection of information for specific purposes and audiences; teach appropriate ways to incorporate such information, acknowledge sources and provide citations.
  - "Information literacy" includes knowledge of and competence using Internet as well as print materials.
- 5. help students read texts and make use of a variety of sources in expressing their own ideas, perspectives, and/or opinions in writing.