

Buffalo State University

<http://www.buffalostate.edu/academicaffairs/x586.xml>

INTRODUCTION

Beginning fall 2006, Buffalo State initiated a new general education program called Intellectual Foundations. The mission of Intellectual Foundations (IF) is to:

“promote an understanding of the continuity of human history, the depth of inherited knowledge, the validity of diverse modes of inquiry, the value of artistic expression and the richness of our collective experience. The purpose of the Intellectual Foundations program is to develop the skills and habits of the mind required for a life of intellectual curiosity and civic engagement.”

Intellectual Foundations was developed as an outcomes based program. It consists of fifteen areas of knowledge which are assessed on a rolling 3 year cycle.

2005-2006: Mathematics, Basic Communication (Written and Oral), Foreign Language and American History.

2006-2007: Natural Science, Social Science, Critical Thinking, Information Management, Technology and Society.

2007-2008: Western Civilization, Non-Western Civilization, Arts, Humanities, Diversity.

LEARNING OUTCOMES

- articulate and defend critically informed values.
- recognize and demonstrate creative thought in producing answers to individual and social questions.

Natural Science:

Students will:

- demonstrate an understanding of the methods that scientists use to explore natural phenomena including observation, hypothesis development, measurement, data collection, experimentation, evaluation of evidence and quantitative analysis.¹
- use the terminology of a life science and/or a physical science to demonstrate cognition, interpretation and communication of information in the natural sciences.²
- evaluate or test hypotheses by analyzing evidence.³
- (Desirable but optional) demonstrate an understanding that what distinguishes science from pseudoscience is the demand for objective evidence as the ultimate test of scientific validity.

¹This learning outcome focuses on the process of science. The expectation is that students will understand how scientists explore the natural world. The language is based on the first SUNY natural science learning outcome.

²The proper use and understanding of terminology is one gauge of "introductory abstract" thinking in the natural sciences. The requirement of both life science and physical science component is based on our preliminary discussions of the structure of the natural science requirement in IF.

³This brief and simple learning objective could be met by, inter alia, the "experimental experience" that we would like to see included in all natural science IF courses. The experience could be the full laboratory component that we have in many of our introductory majors courses or by the type of "lab module" that the Geography Department uses in its World's Natural Environments course. In a psychology course, it could mean having the class engage in the coding of taped behavior and then calculating and/or discussing inter-rater reliability. The College should move in the direction of requiring that all natural science cognate courses include this experimental/laboratory experience.

Social Science:

Students will demonstrate

- the ability to describe accurately the critical social environments, behaviors, and social issues in the context of the course subject matter.
- an understanding of the basic concepts and terminology of a social science and the ability to apply them.
- a basic knowledge of methods of gathering evidence in the social sciences and an understanding of what constitutes acceptable and appropriate evidence.
- an ability to evaluate the implications of social diversity.*
- the ability to articulate and critically evaluate varying positions taken on social science topics

*This may include domestic, international and historical approaches.

American History:

1. Students will demonstrate knowledge of a basic narrative of American history: political, economic, social and cultural, including unity and diversity in American society.
 - understand the origins and development of the political, economic, social and cultural institutions of the United States and the roles that they have played in American life.
 - understand the origins of the racial, ethnic and intellectual diversity of the American people.
2. Students will demonstrate knowledge of common institutions in American society and how they have affected different groups.
 - understand the origins and development of the political, economic, social and cultural institutions of the United States and the changing roles that they have played in American life.
 - understand the impact of race, class, ethnicity and gender on the development of the American people.
3. Students will demonstrate understanding of America's evolving relationship with the rest of the world.
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- relate the development of a non-western civilization or multi-cultural region to that of other regions of the world.

OR

Within the context of broadly understood historical eras, students will:

- demonstrate knowledge of a broad outline of world history including cultures, geography, institutions, societies, politics and economies.
- demonstrate knowledge of ways of thought in one or more historical period, in one or more non-western civilization or multi-cultu

- demonstrate the ability to use research strategies for specialized assignments, employing an appropriate citation format (e.g., MLA and APA) and demonstrating the ability to use Butler Library and the Internet as sources of reference information.
- demonstrate competency in finding, analyzing, synthesizing material from critical and popular print and electronic and other media into their writing.

Mathematics and Quantitative Reasoning:

Students completing Mathematics and Quantitative Reasoning courses will meet the outcomes listed below in 1 or 2.

1. Problem Solving and Abstract Reasoning

Students will:

- represent and analyze known relationships¹ using algebraic and geometric models.
- represent phenomena of the physical world² in abstract, symbolic form.
- solve problems using appropriate methods through logical relationships and reasoning.

2. Statistical Analysis and Reasoning

Students will:

- use verbs marked with appropriate conjugation.
- begin to describe events in the past using correct tense and aspect
- correct subject-modifier agreement (i.e. correct selection of articles, noun and adjective endings)
- use correct word order.