

## **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**

Buffalo State graduates demonstrate competency in the 15 areas of knowledge through assessment of the following learning outcomes:

#### **Arts:**

As a means of exploring the human experience, students will demonstrate:

- ability to read and understand visual and/or performed language including, e.g., idioms, styles, codes and conventions.
- understanding of the meaning and use of artistic symbols in social context.
- ability to interpret visual and/or performed work, including an understanding of purposes and processes of creative endeavors
- ability to identify the persuasive and/or emotive aspects of visual and/or performed work.\*
- understanding of artistic criteria for evaluating visual and/or performed work.

\* does not prohibit a course from the treatment of work with no persuasive or emotive aspect, e.g., minimalism.

#### **Humanities:**

Students will:

- reflect on basic questions of life with the goal of understanding the world and one's place in it.

- 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.<sup>1</sup>
- use the terminology of a life science and/or a physical science to demonstrate cognition, interpretation and communication of information in the natural sciences.<sup>2</sup>
- evaluate or test hypotheses by analyzing evidence.<sup>3</sup>
- (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.

<sup>1</sup>This 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.

<sup>2</sup>The 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.

<sup>3</sup>This 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.
  - understand the process by which the United States expanded its territorial boundaries.
  - understand the emergence of the U.S. as a world power.
  - demonstrate the ability to distinguish between primary and secondary sources.

## **Western Civilization:**

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

- demonstrate knowledge of Western ways of thought in one or more historical period, including at least two foundational fields of thought (e.g., science and religion, or artistic expression and political philosophy)
- demonstrate knowledge of the development of Western civilization in one or more historical period, including its cultures, geography, institutions, societies, polities and economies.
- demonstrate knowledge of an era in terms of the historical periodization, continuities and discontinuities, in Western civilization.
- relate the development of Western civilization to that of other regions of the world.

## **Non-Western Civilizations:**

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

- demonstrate knowledge of ways of thought in one or more historical period, in one or more non-western civilization or multi-cultural region, including at least two foundational fields of thought (e.g., science and religion, or artistic expression and political philosophy)
- demonstrate knowledge of the development of at least one non-western civilization or multi-cultural region in one or more historical period, including its cultures, geography, institutions, societies, polities and economies.
- demonstrate knowledge of an era in terms of the historical periodization, continuities and discontinuities, in the development of a non-western civilization or multi-cultural region.

- 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, polities and economies.
- demonstrate knowledge of ways of thought in one or more historical period, in one or more non-western civilization or multi-cultural region, including at least two foundational fields of thought (e.g., science and religion, or artistic expression and political philosophy)
- demonstrate knowledge of an era in terms of the historical periodization, continuities and discontinuities, in at least one civilization or multi-cultural region.
- understand the interrelatedness among world civilizations and multi-cultural regions.
- respond inquisitively, critically, and respectfully to information and ideas from at least one non-western civilization or multi-cultural region.

## **Diversity:**

Students will demonstrate the ability to:

- critically examine the past, current or prospective influences of diverse groups on American society.
- analyze the ways in which social and institutional structures can contribute to privilege and injustice through stereotyping, prejudice and discrimination.
- explore systematically the importance of understanding, respecting and valuing diverse people or cultures.

## **Additional Course Criteria**

Within each Diversity course instructors will include educational activities that require students to:

- critically reflect on how their values, attitudes and beliefs have developed and affect their perceptions of, and relations with others.
- assess the ways in which individuals, acting alone and in groups, can contribute to social justice.

## **Technology and Society:**

Students will demonstrate:

- Understanding of what is meant by "technology" within the context of the course.
- Understanding of current or past societal challenges that crucially involve scientific and/or technological issues.
- Understanding of the interaction between social, cultural, ethical, political and/or economic considerations and the development and adaptation of technologies
- Ability to evaluate the intended and unintended consequences of the use of science and/or technology.

## **Basic Communication - Oral:**

Students will demonstrate the ability to:

- compose and deliver extemporaneous public presentations.
- effectively create, organize, and support ideas in public presentations.
- evaluate audiences' contexts, attitudes, values and responses and adapt messages accordingly.
- effectively listen to and critically evaluate others' messages.
- contribute to active and ongoing discussions of issues in the discipline.

### **Desirable but Optional Learning Outcomes**

#### **Students will demonstrate the ability to:**

- Define the principle of freedom of expression and explain its role in a democratic society.
- Identify the ethical responsibilities of a public speaker.

### **Basic Communication - Written:**

1. Students will produce coherent text within common college-level written forms.

Students will:

- demonstrate the ability to compose and revise competent pieces of expository writing, including narratives, personal essays, responses to literary works and/or informal writing such as journals.
- demonstrate competence with patterns of arrangement: narration, description, comparison, contrast, classification, cause and effect, induction and deduction.
- demonstrate competence in argumentative and persuasive writing.
- demonstrate the ability to read writing-in-progress, identify rhetorical patterns that work for articulated writing tasks and appreciate and expand their stylistic repertoire.
- demonstrate the ability to write well-organized, unified, coherent research-based papers and essays that include a clear thesis and strong supporting material.
- produce at least five substantive writing exercises demonstrating competence in drafting and revising for each. In Eng 102 students will compose longer essays, sustain more complex revision and practice greater control of structure, form and research than in Eng 101.

2. Students will demonstrate the ability to revise and improve such texts.

Students will:

- demonstrate competence in the writing process from invention and prewriting through drafting, revision and final editing.
- develop a repertoire for analyzing and approaching writing tasks, finding a subject and generating ideas for writing.
- examine reading and writing processes in relation to each other and in class and with the help of the Writing Center staff, will gain practice in reading writing-in-progress, identifying what works as well as what needs work.
- gain experience in using the personal computer as a writing and revising tool.

3. Students will research a topic, develop an argument and organize supporting details.

Students will:

- recognize persona, purpose and audience in writing and develop essays that demonstrate unity and coherence and contain a clear controlling idea (thesis), a strong introduction, sufficient supporting detail and a strong conclusion.

- 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 relationships<sup>1</sup> using algebraic and geometric models.
- represent phenomena of the physical world<sup>2</sup> in abstract, symbolic form.
- solve problems using appropriate methods through logical relationships and reasoning.

### 2. Statistical Analysis and Reasoning

Students will:

- describe and analyze sets of numerical data visually and quantitatively.
- draw valid and meaningful inferences and conclusions from data using appropriate methods.
- assess the validity of conclusions drawn from statistical methods.<sup>3</sup>

<sup>1</sup> “known relationships” refers to the existing collection of functions and formulas used to describe

the world around us.

<sup>2</sup> “physical world” includes phenomena that we may encounter in the study of the physical, life, and social sciences.

<sup>3</sup> “statistical methods” includes research design, data collection, and data analysis

## **Foreign Language and Culture:**

1. Students will demonstrate basic proficiency in the understanding and use of a foreign language.

Holistic Language/Communication Strategies

Students will:

- convey meaning clearly at the sentence level.
- use vocabulary and idioms appropriate for the level of study (i.e. avoidance of word-for-word translation from English, false cognates; command of frequently confused words in target language, formal vs. informal address)
- describe themselves, someone with whom they are familiar (i.e. friend, a favorite singer, et.)
- identify and categorize, compare/contrast familiar objects in their immediate environment
- state a fact or opinion, give a piece of advice (202 level only)
- make a hypothetical statement (“If..., I would...”) (202 level only)

Grammar/Syntax

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.

Oral: (202 level only)

Students will:

- speak smoothly, with no more than a brief hesitation between words and clauses.
- accurate and standard pronunciation.

2 Students will demonstrate knowledge of the distinctive features of culture associated with the language studied.

- demonstrate a basic familiarity with/knowledge of Latin American and Spanish culture/ or the culture of France and Francophone countries.
- know basic politeness, daily routines, celebrations and other differences between American and target cultures in education, health care, shopping, etc.

## **PROCESS**

Oversight committees composed of representatives of the faculty teaching in each area are responsible for developing outcomes and determining assessment procedures.

Assessment in Intellectual Foundations consists of evaluating student work product from courses in each area. If the work product is qualitative, i.e. essay, artwork, performance, etc. it is generally evaluated by 2 faculty members according to an agreed upon rubric. (Inter-rater reliability sessions are conducted prior to the assessment.)

In the areas Critical Thinking, Mathematics, and Written Communication student work product is evaluated according to a set of SUNY-wide rubrics that were developed across SUNY to ensure system consistency.

The learning environment is also assessed through the administration of the NSSE and FSSE. Results of the NSSE are triangulated with results from Intellectual Foundations assessment. The IF Oversight Committee and the Scholarship of Teaching and Learning (SoTL) Advisory committee will reflect on the results of NSSE and FSSE and make recommendations.