## Some Campus-Wide Learning Outcomes

<table>
<thead>
<tr>
<th>Campus</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alverno College</td>
<td>2</td>
</tr>
<tr>
<td>American Academy for Liberal Education (AALE)</td>
<td>3</td>
</tr>
<tr>
<td>Association of American Colleges and Universities (AAC&amp;U)</td>
<td>4</td>
</tr>
<tr>
<td>California State University, Monterey Bay</td>
<td>5</td>
</tr>
<tr>
<td>Community College of Denver, Colorado</td>
<td>11</td>
</tr>
<tr>
<td>Illinois Articulation Initiative, Statewide</td>
<td>12</td>
</tr>
<tr>
<td>Indiana University—Purdue University, Indianapolis</td>
<td>15</td>
</tr>
<tr>
<td>James Madison University</td>
<td>17</td>
</tr>
<tr>
<td>Johnson County Community College</td>
<td>18</td>
</tr>
<tr>
<td>Mesa Community College</td>
<td>20</td>
</tr>
<tr>
<td>Portland State University</td>
<td>22</td>
</tr>
<tr>
<td>University of Delaware, Newark</td>
<td>23</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>24</td>
</tr>
</tbody>
</table>

All materials were downloaded from websites 2004. Some segments were reformatted to better fit the printed page, and materials other than learning objectives were excluded from the excerpts. A URL is provided for each site used to create this document.
Degree Requirements
The Alverno baccalaureate degree is awarded when a student has completed a program of learning that integrates her accomplishment in required areas of knowledge with her achievement of required levels of competence in all of the following eight areas:

- Communication
- Analysis
- Problem solving
- Valuing in decision-making
- Social interaction
- Global perspectives
- Effective citizenship
- Aesthetic responsiveness

In general education, a student masters the eight abilities that form the core of Alverno's ability-based education. To accomplish this goal, a student will need a broad range of knowledge, ability to use technology, and systematic practice and critique. The courses that are part of Alverno's general education provide the means for all three.

The knowledge that a student needs for mastery of the eight abilities includes history, English, philosophy, religious studies, arts, sciences, mathematics, psychology and social science. This broad base of general knowledge also becomes the foundation upon which a student adds the specialized knowledge associated with her major and support area.

Professions such as business, education and health care, for example, count on basic insights about human motivation gained from a general knowledge of psychology, history and philosophy. Decision makers in corporations or community groups rely on values formed in the study of the arts and humanities or analysis skills developed in mathematics and science. Such fields as biology and chemistry increasingly depend on other areas of knowledge to establish the context and significance of their discoveries.

The distinctive, ingenious aspect of Alverno's curriculum is that all courses have been structured so that, as students acquire this essential general knowledge, they also practice and master the eight abilities.
American Academy for Liberal Education (AALE)
From http://www.aale.org, Education Standards.

Liberal education aims at creating free men and women, those who have control over their lives, not only vocationally, but as citizens and as human beings able to draw on the greatest minds and works of both the past and the present.

The Academy understands general undergraduate education to have three broad goals:

- the cultivation of responsible citizens;
- preparation for the world of work; and
- the pursuit of knowledge for its own sake.

(R)esponsible citizenship requires knowledge of the history of America and its institutions, as well as of the central ideas that have shaped our diverse culture not to mention other cultures in the world, a knowledge of which may help to combat the overly self-regarding parochialism natural to all human beings.

Successful participation in the international political and cultural arena and in a dynamic, global marketplace requires not only a knowledge of computers, but also organizing, writing and speaking skills (in a foreign language as well as in English), and a firm grasp of mathematical reasoning accompanied by a sound knowledge of the laboratory sciences.

(T)he study of the great ideas in art, literature, the social sciences, the natural sciences, and philosophy is a noble and reflective activity that requires no further purpose beyond itself.
A broad consensus on learning goals is implicit in contemporary campus efforts:

1. Acquiring intellectual skills or capacities:
   - writing,
   - quantitative reasoning,
   - oral expression,
   - technological literacy,
   - second language,
   - moral reasoning,
   - negotiating difference.

2. Understanding and using multiple modes of inquiry and approaches to knowledge in humanities, arts, sciences and social sciences.

3. Developing societal, civic, and global knowledge.

4. Gaining self-knowledge and grounded values.

5. Achieving concentration and integration of learning:
   - inquiry-based learning in the major,
   - integrative learning within majors, across fields, between general studies and majors, in and out of school.
Thirteen University Learning Requirements (ULRs)

1. Community Participation
2. Creative/Artistic Expression
3. Culture and Equity
4. Democratic Participation
5. English Communication
6. Ethics
7. Language
8. Literature/Popular Culture
9. Mathematics Communication
10. Science
11. Technology/Information
12. United States Histories
13. Vibrancy

1. Community Participation

**Purpose:** The purpose of the CP ULR is to foster the development of self-reflective, culturally aware and responsive community participants through reciprocal service and learning.

**Outcomes:**
1. Demonstrate critical self-reflection of one’s own assumptions and stereotypes.
2. Comprehend own social and cultural group identities and the relative privilege or marginalization of each.
3. Demonstrate intercultural communication skills.
4. Demonstrate knowledge of the demographics, socio-cultural dynamics and assets of a specific local community.
5. Examine and analyze a community issue in the context of systemic inequities.
6. Enter, participate in, and exit a community in ways that do not reinforce systemic injustice.
7. Demonstrate reciprocity and responsiveness in service work with community.

2. Creative Artistic Expression

The Creative and Artistic Expression ULR is one in which students produce work/works of art that communicate to a diverse audience through a demonstrated understanding and fluency of expressive forms. The emphasis is on moving the student to produce work/works of art that comprehends the significance and expression of culture in a variety of ways. The Creative and Artistic Expression ULR course is one that incorporates a thorough knowledge of the given discipline and offers students the opportunity to develop creatively through engaged and reflective work.

**The Creative and Artistic Expression ULR entails the following:**
- Life experience or course content that engages imagination, creativity and a balance of personal vision and cultural expression through any of the following or combination thereof:
  - Written, (Poetry, fiction, non-fiction etc)
  - Visual, (Sculpture, painting, photography, filmmaking etc)
  - Music/Sound (instrumental, voice, digital)
  - Performance
  - Digital (web-based, design, multimedia)
  - Film/Video, Animation
Hybrid forms [creative forms that are a combination of any of these or that do not fit neatly into any of the categories mentioned above. These are subject to review of ULR Learning Community]

- Understand the underlying concepts of the creative process or subject matter at hand in relationship to existing models specific to this form.
- Production of a work/works of art that communicates to a diverse audience.
- To comprehend through any or a combination of: written, visual, musical, sound, performance, or digital art, the significance of this expression to yourself and to the audiences your work is addressed.
- Understand the forms of communication you are engaged in as well as the links between these forms and the contexts (audience/community) in and for which it is exhibited.
- Development and demonstration of the craft, technical competence, and fluent knowledge of the media and forms of expression you have chosen to use.
- Understand and take responsibility for the creative/expressive choices made in the creation and/or production of your chosen form.
- Ability to articulate intention, consider alternative interpretations, and analyze the elements of expressive structures and the creative process specific to the field of study.
- The ability to learn and develop from this reflective practice in purposeful and considered ways.

3. Culture and Equity

Requirements:
The University Learning Requirement (ULR) on Culture and Equity is required of all CSUMB students to graduate. To meet this ULR, student must demonstrate a comprehension of one's individual cultural identity in relationship to other cultures and lifestyles within their contexts; and demonstrate critical awareness of relations of power as well as means for creating greater equity and social justice.

What does this mean?
This ULR combines the former Culture and Equity ULRs into a single ULR. To satisfy this learning requirement, students must demonstrate that they:

1. **Students must define and describe the concept of culture** using insights from scholarly literatures of culture and compare their own culture with other cultures using their conceptual understanding.

2. **Students must define and describe the concept of cultural identity(ies)** using insights from scholarly literatures and compare their own cultural identity(ies), within the context of their own culture(s), with the cultural identities of others.

3. **Students must analyze and describe the concepts of power relations, equity, and social justice** and find examples of each concept in the U.S. society and other societies.

4. **Students must analyze historical and contemporary cross-cultural scenarios of discrimination, inequity, and social injustice** in the United States and other societies.

5. **Students must define and describe various personal and institutional strategies/processes that could create equity and social justice in the United States and other societies.**

4. Democratic Participation

Outcome 1: Students know general principles and major provisions of the Constitution of the United States and California.

Outcome 2: Students comprehend the historical contexts and political philosophies at work at the time of the framing of the U.S. and California constitutions.
**Outcome 3:** Students understand how both the national and California Constitutions have changed and the relations of power, interests, and concerns that those changes reflect.

**Outcome 4:** Students have the ability to compare U.S. and California political institutions and practices with other forms of governance.

**Outcome 5:** Students understand and are able to use tools of political action in a political project undertaken at the local, state, or national level. Students reflect on the values and assumptions that inform their political participation.

**5. English Communication**

**OUTCOME:** Comprehension/Interpretation: Ability to use empathic and critical reading, listening, viewing, and speaking skills to understand information and ideas, to distinguish among diverse genres of communication, to identify a point of view and its explicit support and to locate significant points of agreement and disagreement among multiple perspectives.

**OUTCOME:** Analysis/Evaluation: Ability to use empathic and critical thinking skills to understand why different perspectives exist on a given topic and to assess their merits.

**OUTCOME:** Decision Making: Ability to use empathic and critical thinking skills to make ethical and effective decisions.

**OUTCOME:** Presentation: Ability to use oral and written communication ethically, effectively, and competently.

**6. Ethics**

**Outcome 1:** Identify and analyze real world ethical problems or dilemmas, and identify those affected by the dilemma.

**Outcome 2:** Describe and analyze complexity and importance of choices that are available to the decision-makers concerned with this dilemma.

**Outcome 3:** Articulate and acknowledgement one's own deeply held beliefs and assumptions as part of a conscious value system.

**Outcome 4:** Describe and analyze one's own and others' perceptions and ethical frameworks for decision-making.

**Outcome 5:** Consider and use multiple choices, beliefs, and diverse ethical frameworks when making decisions to respond to ethical dilemmas or problems.

**7. Language**

**Outcome 1:** Students will be able to communicate in a designated language other than English with native speakers of that language.

**Outcome 2:** Students will be able to describe and appreciate cultural customs, practices, products, and perspectives.

**Outcome 3:** Students will be able to compare their own culture with another culture with respect to customs, practices, products, and perspectives.
8. Literature/Popular Culture
Requirements:
Demonstrate the ability to analyze, interpret and appreciate literature and/or diverse forms of
popular culture as artistic and cultural representation according to the criteria listed below.
Popular culture includes film, popular music, television, folk forms, folklore, crafts, mass media,
youth culture, and other forms of popular communication through forms of art, media.
Outcomes:
- Interpret and analyze the significance of time, place, class, and culture in which the works of
  literature and/or pop-culture were created.
- Describe and analyze the capacity of race, ethnicity, class, gender, sexuality, disability, age,
generation, and/or nationality to inspire, inform, and influence writers, artists and audiences.
- Describe connections between works of literature and/or pop-culture, their
  authors/artists/creators, and the society from which they emerge, and analyze their
  interactions from multiple perspectives.
- Discuss how the identities of diverse individuals and communities are developed and
  portrayed, and how critical representations of self and others occur in works of literature
  and/or pop culture.

9. Mathematics Communication
Requirements:
The five student learning outcomes that were adopted by the MATHCOM faculty are:
1. Use arithmetical, algebraic, geometric and statistical methods to solve problems
2. Estimate and check answers to mathematical problems in order to determine reasonableness,
   identify alternatives, and select optimal results
3. Interpret mathematical models such as formulas, graphs, tables, and schematics, and draw
   inferences from them
4. Represent mathematical information symbolically, visually, numerically, and verbally
5. Recognize and describe the limits of mathematical and statistical methods

10. Science
Part 1: "Science as a Way of Knowing" ("Science Methods")
Outcome 1A: Compare and contrast the scientific and popular meanings of hypotheses, and
theories.
Outcome 1B: Use the scientific method of inquiry and standard scientific techniques to answer
questions about physical, biological, or social processes.
Outcome 1C: Demonstrate how experimentation (or other forms of data collection), and peer
review, are used in the production of scientific knowledge and how this differs
from other kinds of knowledge.

Part 2: "Integrative Science Content"
Outcome 2A: Explain at least five physical science concepts of principles and at least five life
science concepts or principles.
Outcome 2B: Identify and integrate physical and life scientific facets of two contemporary
controversial issues: one local, and one global.
Outcome 2C: Locate and use scientific information about one of those issues (outcome 2B) from
five sources, including at least two peer-reviewed journals, and identify the bias
and qualifications of each source.
11. Technology/Information
Requirements:
Demonstrate comfort with technology and information search and discovery methods.
Demonstrate the ability to use tools effectively for the discovery, acquisition, and evaluation of
information as well as core computer tools for the manipulation and presentation of information
in a creative and ethical manner.
What does this mean?
Students will demonstrate ability to:
1. Use accepted word processing techniques to produce a well-designed and esthetically pleasing
   formal document.
2. Use standard spreadsheet features to produce a representation and analysis of numerical data.
3. Identify and refine a topic and formulate a research question related to that topic.
4. Describe and categorize the basic types of information resources available for a single topic.
5. Locate, retrieve and evaluate information relevant to the research question.
6. Organize and communicate research findings and conclusions to answer a research question.
7. Create an electronic document that discusses a single subject or conveys a message.
8. Create an original digital image.
9. Analyze and respond to an ethical issue related to computers and use of information using a
   variety of sources.

12. United States Histories
Outcome One: Historical Understanding
Provides a comparative description and analysis of the diverse peoples and histories of the
United States over a significant time period (at least one hundred years) which must include the
peoples of California. *

Outcome Two: Critical Thinking
Uses critical thinking skills needed to read, understand and interpret historical scholarship.

Outcome Three: Historical Research Methods
Employs basic methodological approaches that will enable students to become their own
historians.

Outcome Four: Historical Writing
Interprets and integrates Outcome One (historical knowledge), Outcome Two (historical
analysis) and Outcome 3 (historical application) in well-written essays and additionally (if
appropriate), in another form, such as a multimedia presentation or WEB page.

13. Vibrancy
Requirements:
Demonstrate knowledge of the concepts of health and wellness, describe their dimensions, and
plan, implement and report on a specific wellness plan or project as it relates to one's own life.
**What Does This Mean?**
The University Learning Requirement (ULR) of Vibrancy responds to one of the seven academic goals of CSUMB which is a holistic and creative sense of self. The student must:

**OUTCOMES: THEORY COURSE**
1. **Describe** and **define** health and wellness theory, concepts and content. The emphasis will be on **knowledge** of the real and potential benefits of regular physical activity, proper nutrition, eating habits, and stress reduction/management and their interrelatedness.
2. **Analyze** real and potential **benefits** of regular exercise, proper nutrition, eating habits and stress management, and the **consequences** of not having these habits.
3. **Set** health and wellness **goals via a plan**, and develop action steps to achieve the goals in the areas of physical activity, nutritious eating and/or effective stress management.
4. Describe a commitment and intent to **implement** a personal wellness plan and **describe choices** that support the plan.

**OUTCOME: ACTIVITY COURSE**
5. **Participate** in a human movement activity and **acknowledge** the importance and benefits for personal health and wellness.
Student Performance Objectives for Transfer Education (AA Degree)

1. Students will plan and write well-structured compositions demonstrating the writing capabilities to express, inform, analyze, evaluate, persuade, argue, conduct research, and use primary and secondary sources logically and stylistically.

2. Students will compose and deliver oral presentations, providing ideas and information, and using delivery skills suitable to the topic, purpose and audience. Students will demonstrate an understanding of speeches and be able to evaluate speeches.

3. Students will read and think critically about a variety of interdisciplinary topics, demonstrating college-level reading skills in a variety of disciplines, including humanities, social sciences and the natural sciences.

4. Students will demonstrate orally and in writing the critical-thinking skills of analysis, synthesis and evaluation.

5. Students will analyze and use numerical data and qualitative reasoning skills, including applying proper formulas to mathematical data and calculating results, illustrating quantitative data graphically, rearranging general formulas to solve for any term, and interpreting graphic data and assessing the importance of the portrayed trends.
COMMUNICATION (9 semester credit hours)

Writing Course Sequence (two courses)
The writing course sequence (1) develops awareness of the writing process; (2) provides invention, organizational and editorial strategies; (3) stresses the variety of uses for writing; and (4) emphasizes critical skills in reading, thinking and writing. The writing course sequence must include production of documented, multi-source writing in one or more papers for a combined total of at least 2500 words in final version.

Upon successful completion of the writing course sequence (which requires grades of C or better), students should have the competencies listed below. The student is expected to:

• comprehend, analyze, and critique a variety of texts including academic discourse;
• use various invention, drafting, and revising/editing strategies depending upon the purpose of the writing, the materials available to the writer, and the length of time available for the task;
• engage a topic in which the writer explores writing as a means of self-discovery and produces a text that is designed to persuade the reader of the writer's commitment;
• demonstrate a theoretical understanding of rhetorical context (that is, how reader, writer, language, and subject matter interact);
• establish a voice appropriate to the topic selected and the rhetorical situation;
• clarify major aims, arrange material to support aims, and provide sufficient materials to satisfy expectations of readers;
• select, evaluate, and interact effectively with sources, subordinating them to the writer's purpose and creating confidence that they have been represented fairly;
• demonstrate satisfactory control over the conventions of edited American English and competently attend to the elements of presentation (including layout, format, and printing); and • recognize the existence of discourse communities with their different conventions and forms.

Oral Communication
The oral communication course, either a traditional public speaking or a hybrid course, combines communication theory with the practice of oral communication skills. The oral communication course: (1) develops awareness of the communication process; (2) provides invention, organizational and expressive strategies; (3) promotes understanding of and adaptation to a variety of communication contexts; and (4) emphasizes critical skills in listening, reading, thinking and speaking. Students are expected to prepare and give at least three substantial speeches, including both informative and persuasive assignments. All mediated oral communication classes shall require face-to-face (unmediated) performance of the three substantial speeches with the class and the instructor serving as an in-class audience.

Upon successful completion of the oral communication course, students should have attained at least the competencies in both theory and practice as listed below.

Communication Theory--The student is expected to:
• have a theoretical understanding of communication;
• understand the relationships among self, message and others; and understand the process of effective listening.

Communication Practice--The student is expected to:
• phrase clear, responsible and appropriate purpose statements;
• develop specific, well-focused thesis statements;
• analyze an audience and situation, and then adapt a message to those needs;
• generate ideas and gather supporting material;
• incorporate material from various appropriate sources, using proper verbal citations;
• use evidence, reasoning and motive appeals in persuasive speaking;
• prepare and use visual aids that promote clarity and interest;
• organize and outline an effective message;
• use language that is appropriate to enhance understanding and effect the desired result;
• establish credibility by demonstrating knowledge and analysis of topic;
• use extemporaneous delivery with reasonable fluency, expressiveness and comfort;
• cope effectively with the tensions involved in public speaking;
• demonstrate acceptable ethical standards in research and presentation of materials; and
• listen to, analyze and critique oral communication.

MATHEMATICS (3-6 semester credit hours)
The mathematics component of general education focuses on quantitative reasoning to provide a base for developing a quantitatively literate college graduate. Every college graduate should be able to apply simple mathematical methods to the solution of real-world problems. A quantitatively literate college graduate should be able to:
• interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them;
• represent mathematical information symbolically, visually, numerically and verbally;
• use arithmetic, algebraic, geometric and statistical methods to solve problems;
• estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives and select optimal results; and
• recognize the limitations of mathematical and statistical models.
Courses accepted in fulfilling the general education mathematics requirement emphasize the development of the student's capability to do mathematical reasoning and problem solving in settings the college graduate may encounter in the future. General education mathematics courses should not lead simply to an appreciation of the place of mathematics in society, nor should they be merely mechanical or computational in character. To accomplish this purpose, students should have at least one course at the lower-division level that emphasizes the foundations of quantitative literacy and, preferably, a second course that solidifies and deepens this foundation to enable the student to internalize these habits of thought.

PHYSICAL AND LIFE SCIENCES (7-8 semester credit hours)
The purpose for the study of science is to:
• develop students' understanding of the methods of scientific inquiry, including the formulation and testing of hypotheses;
• familiarize students with selected scientific principles in the physical and life sciences;
• enable students to make informed decisions about personal and societal issues.
In order for students to understand the methods of scientific inquiry, including the development of the skills and disposition necessary to become independent inquirers about the natural world, at least one general education science course must include a laboratory component that meets a minimum of two hours per week, in which students will be expected to:
• formulate or evaluate questions (hypotheses),
• plan and conduct experiments (test hypotheses),
• make systematic observations and measurements,
• interpret and analyze data,
• draw conclusions,
• communicate the results (orally and/or in writing).
To achieve this purpose, students are expected to complete satisfactorily a minimum of two courses. In order for students to become familiar with selected scientific principles, at least one course must be selected from the life sciences and one course from the physical sciences. Students with appropriate preparation may substitute an IAI-approved course for science majors for a more general course.
THE HUMANITIES AND FINE ARTS (9 semester credit hours)

Study in the humanities and fine arts develops an understanding of what it means to be human—the struggles and aspirations, comedies and tragedies, and achievements and failures of human beings; wrestles with the basic questions that confront all human beings in the course of their lives—identity, beauty, courage, love, truth, justice, and morality; and examines the dreams, traditions, and cultural expressions of peoples throughout time who have wrestled with these same questions. To understand what it means to be human, one must understand oneself in relation to the natural world and in relation to others, reflect on ideas and confront presuppositions from one's own and other cultures, and respond creatively. Thus, study in the humanities and fine arts focuses on intellectual and cultural expression approached through historical, hermeneutic, cultural, and aesthetic investigations. Courses designed to fulfill the Illinois Transferable General Education Core Curriculum (IAI GECC) humanities and fine arts requirement involve students in the basic questions and substance of the humanities and fine arts, as well as in the methods used to approach these questions. Courses in philosophy, religious studies, literature, history, and the history and appreciation of the visual and performing arts, as well as interdisciplinary courses, are typically included among those considered part of a general education. Because critical thinking, investigation, and reflection are necessary to the study of the humanities and fine arts, these processes—as embodied in writing (essays and essay examinations) and speaking (oral presentations and discussion)—are a significant component of humanities and fine arts courses. Where appropriate, course readings and activities also reflect an awareness of the United States' multicultural inheritance: race, ethnicity, gender and class. By contrast, courses that primarily focus on developing a skill, such as performance or production courses in the arts, technique or professional courses in communications, and those foreign language courses that focus on learning to speak and write a different language at an elementary level, generally are not considered part of a general education in the humanities and fine arts.

To fulfill the IAI GECC humanities and fine arts requirement, students should select a minimum of three courses, selecting at least one from the humanities and one from the fine arts. Interdisciplinary courses encompassing both the humanities and the fine arts may be used for both categories.

SOCIAL AND BEHAVIORAL SCIENCES (9 semester credit hours, from at least two disciplines)

Through study in the social and behavioral sciences, students gain an appreciation of human continuity and change. Students learn to analyze the past, develop insight into contemporary social life, and understand the impact of individual and social actions on the future. Students are encouraged to develop a sense of global responsibility toward humanity and the environment. Study in the social and behavioral sciences will help students to:

• gain insight into individual behavior;
• develop an understanding of their own society and the world as part of larger human experience in time and place;
• analyze social, political, cultural, historical, and economic institutions and relationships that both link and separate societies throughout the world;
• develop analytical, critical thinking, and communication skills necessary to understand and influence the world in which they live;
• comprehend methods of inquiry employed by social and behavioral scientists.
Indiana University—Purdue University, Indianapolis
http://www.eport.iu.edu/about_the_project_frameset.htm

IUPUI Principles of Undergraduate Learning

Core Communication and Quantitative Skills
The ability of students to write, read, speak, and listen, perform quantitative analysis, and use information resources and technology and the foundational skills necessary for all IUPUI students to succeed. This set of skills is demonstrated, respectively, by the ability to:

- express ideas and facts to others effectively in a variety of written formats
- comprehend, interpret, and analyze texts
- communicate orally in one-on-one and group settings
- solve problems that are quantitative in nature
- make efficient use of information resources and technology for personal and professional needs

Critical Thinking
The ability of students to analyze information and ideas carefully and logically from multiple perspectives. This skill is demonstrated by the ability to:

- synthesize information in order to arrive at reasoned conclusions
- evaluate the logic, validity, and relevance of data
- solve challenging problems
- use knowledge and understanding in order to generate and explore new questions

Integration and Application of Knowledge
The ability of students to use information and concepts from studies in multiple disciplines in their intellectual, professional, and community lives. This skill is demonstrated by the ability of students to apply knowledge to:

- enhance their personal lives
- meet professional standards and competencies
- further the goals of society

Intellectual Depth, Breadth, and Adaptiveness
The ability of students to examine and organize disciplinary ways of knowing and to apply them to specific issues and problems.

- Intellectual depth describes the demonstration of substantial knowledge and understanding of at least one field of study.
- Intellectual breadth is demonstrated by the ability to compare and contrast approaches to knowledge in different disciplines.
- Adaptiveness is demonstrated by the ability to modify one's approach to an issue or problem based on the contexts and requirements of particular situations.

Understanding Society and Culture
The ability of students to recognize their own cultural traditions and to understand and appreciate the diversity of the human experience, both within the United States and internationally. This skill is demonstrated by the ability to:

- compare and contrast the range of diversity and universality in human history, societies, and ways of life
- analyze and understand the interconnectedness of global and local concerns
- operate with civility in a complex social world

Values and Ethics
The ability of students to make judgments with respect to individual conduct, citizenship, and aesthetics. A sense of values and ethics is demonstrated by the ability of students to:
• make informed and principled choices regarding conflicting situations in their personal and public lives and to foresee the consequences of these choices
• use knowledge and understanding in order to generate and explore new questions.

*See http://www.eport.iu.edu/images/matrix_lg.gif to see how these are integrated into their institutional portfolio.
The Goals of General Education

Students acquire knowledge of past and present achievements of our own and other cultures in the arts, letters, and sciences; of the impact of people, institutions and communities involved in the creation, preservation and transmission of culture; of the distinctions and interconnections among disciplines. This includes Knowledge of:

- the world’s great literary, philosophical, and religious traditions;
- the historical and social context of major political, intellectual, religious, economic, scientific and cultural developments;
- the evidence, ideas, and models needed to understand how people relate to each other, to institutions and to communities;
- the evidence, ideas, and models to make informed and responsible judgments about the physical world;
- major achievements in the fine arts of our own and other civilizations and the cultural, social, and historical context in which they were created;
- values, ethics, and legal issues in a free society;
- the wellness issues involved in encouraging life-style choices necessary for sustaining health and well-being;

Students learn the Skills of perception, research, investigation and the critical analyses needed to cope with problems and find solutions, and the written, oral, and electronic communication skills requisite to shaping ideas and transmitting them persuasively. These Skills include being able:

- to communicate purposefully through reading, writing, speaking and listening effectively and through use of appropriate technology;
- to use the investigative, analytical, quantitative, and critical thinking skills needed to examine alternatives and make decisions;
- to perceive and make informed aesthetic choices and analyses about artistic use of sound, movement, and images;
- to identify, locate, and evaluate information sources in both traditional and electronic forms;
- to interact effectively in interpersonal and inter-cultural group situations.

Students will actively engage in reflection about aesthetic and ethical concerns and the diversity of human values through experiences that transcend the limits of specialization. This is evident when students:

- become independent, creative, and self-directed learners;
- gain an understanding of the academic community and its application to broader communities;
- cooperate and collaborate when working with other people;
- examine the influence of culture on one’s own perceptions and treat others with dignity, respect, and civility.

These broad goals are achieved through coursework in five cluster areas, each of which is defined by a set of learning objectives. Students work to meet these learning objectives while enrolled in integrated or sequenced courses in each cluster area. All students complete Cluster One their freshman year, and all students at least start Cluster Three their freshman year.
1. Mathematics Outcome

**Outcome Statements:** Upon receipt of an associate degree from Johnson County Community College, a student should be able to:

1. Identify relevant data (numerical information in mathematical or other contexts) by
   a. extracting appropriate data from a problem containing extraneous data and/or
   b. identifying appropriate data in a word problem.

2. Select or develop models (organized representations of numerical information, e.g., equation, table, graph) appropriate to the problem which represent the data by
   a. arranging the data into a table or spreadsheet and/or
   b. creating pictorial representations (bar graphs, or pie charts, or rectangular coordinate graphs, etc.) with or without technological assistance and/or
   c. selecting or setting up an equation or formula.

3. Obtain and describe results by
   a. obtaining correct mathematical results, with or without technological assistance and
   b. ascribing correct units and measures to results.

4. Draw inferences from data by
   a. describing a trend indicated in a chart or graph, and making predictions based on that trend and/or
   b. describing the important features of data presented in a table or spreadsheet, and making predictions based on that trend and/or
   c. describing the important features of an equation or formula, and making predictions based on those features and/or
   d. making reasonable estimates when given problems involving quantities in any organized or disorganized form and/or
   e. drawing qualitative conclusions about the original situation based on the quantitative results that were obtained.

2. Writing Outcome

**Outcomes Statement:** Upon receipt of an associate degree from Johnson County Community College, a student should be able to write a clear, well-organized paper using documentation and quantitative tools when appropriate.

3. Speaking Outcome

**Outcome Statement:** Upon receipt of an associate degree from Johnson County Community College, a student should be able to make a clear, well-organized verbal presentation.

4. Culture and Ethics Outcome

**Outcomes Statements:** Upon receipt of an associate degree from Johnson County Community College, a student should be able to:

1. Demonstrate a fundamental knowledge of world geography.
2. Demonstrate knowledge of the major cultural issues of a person's own culture as well as other cultures.
3. Demonstrate knowledge of major historical events affecting one's culture and other cultures.
4. Demonstrate familiarity with contemporary global issues.
5. Demonstrate an understanding of major ethical concerns.

5. Modes of Inquiry Outcome
Outcomes Statement: Upon receipt of an associate degree from Johnson County Community College, a student should be able to demonstrate understanding of the modes of inquiry by identifying an appropriate method of accessing credible information and data resources; applying the selected method; and organizing results.

6. Problem Solving Outcome
Outcomes Statement: Upon receipt of an associate degree from Johnson County Community College, a student should be able to demonstrate understanding of solving problems by recognizing the problem; reviewing information about the problem; developing plausible solutions; and evaluating results.

See their website for many details about their rubrics and standards for assessing evidence.
Mesa Community College
http://www.mc.maricopa.edu/organizations/employee/orp/assessment/Anchor-What-14210

Student Learning Outcomes for General Education

Communication
1. Write a clear, well-organized paper using documentation and quantitative tools when appropriate.
2. Construct and deliver a clear, well-organized, verbal presentation.

Numeracy
1. Identify and extract relevant data from given mathematical situations.
2. Select known models or develop appropriate models that organize the data into tables or spreadsheets, graphical representations, symbolic/equation format.
3. Obtain correct mathematical results and state those results with the qualifiers.
4. Use the results.

Problem Solving/Critical Thinking
1. Identify a problem or argument.
2. Isolate facts related to the problem.
3. Differentiate facts from opinions or emotional responses.
4. Ascertain the author's conclusion.
5. Generate multiple solutions to the problem.
6. Predict consequences.
7. Use evidence or sound reasoning to justify a position.

Scientific Inquiry
Demonstrate scientific inquiry skills related to:
1. Hypothesis: Distinguish between possible and improbable or impossible reasons for a problem.
2. Prediction: Distinguish between predictions that are logical or not logical based upon a problem presented.
3. Assumption: Recognize justifiable and necessary assumptions based on information presented.
4. Interpretation: Weigh evidence and decide if generalizations or conclusions based upon given data are warranted.
5. Evaluation: Distinguish between probable and improbable causes, possible and impossible reasons, and effective and ineffective action based on information presented.

Arts and Humanities
1. Demonstrate knowledge of human creations.
2. Demonstrate an awareness that different contexts and/or world views produce different human creations.
3. Demonstrate an understanding and awareness of the impact that a piece (artifact) has on the relationship and perspective of the audience.
4. Demonstrate an ability to evaluate human creations.

Information Literacy
1. Given a problem, define specific information needed to solve the problem or answer the question.
2. Locate appropriate and relevant information to match informational needs.
3. Identify and use appropriate print and/or electronic information sources.
4. Evaluate information for currency, relevancy, and reliability.
5. Use information effectively.
Cultural Diversity
1. Identify and explain diverse cultural customs, beliefs, traditions, and lifestyles.
2. Identify and explain major cultural, historical and geographical issues that shape our perceptions.
3. Identify and explain social forces that can effect cultural change.
4. Identify biases, assumptions, and prejudices in multicultural interactions.
5. Identify ideologies, practices, and contributions that persons of diverse backgrounds bring to our multicultural world.

Student Learning Outcomes for the Workplace
1. Ethics: The ability to commit to standards of personal and professional integrity, honesty and fairness.
2. Interpersonal Skills: The ability to utilize oral, written and listening skills to effectively interact with others.
3. Critical Thinking: The ability to analyze and evaluate information and utilize a variety of resources in making decisions or solving problems.
4. Organization: The ability to prioritize, meet deadlines and complete assignments in a timely manner; adapt to a constantly changing workload and environment; and identify realistic goals and inventions for short and long term planning.
5. Teamwork: The ability to collaborate with others toward the accomplishment of common goals.
6. Technology Literacy: The ability to use technology and understand its value and purpose in the workplace.
7. Personal and Professional Responsibilities: The ability to assess the range of one's abilities, accept responsibility for setting realistic goals, and implement a plan for personal and professional well-being.

Student Learning Outcomes for Developmental Education
- Reading
  Read written and graphically-presented information and draw correct and/or reasonable inferences and conclusions from the information.
  Recognize how basic principles from one discipline generalize to other disciplines.
- English
  Given written and graphically-presented information, create a thesis and support it with evidence from the information.
- Mathematics
  Given a mathematical problem, demonstrate critical thinking skills by:
  1. interpreting the problem
  2. determining the correct mathematical operations for the problem
  3. using estimation in reaching a solution
  4. solving the problem
  5. determining the reasonability of a solution
Portland State University
http://portfolio.pdx.edu/Portfolio/Learning_Markers/Markers/

Proposed Markers of the Baccalaureate

All PSU Baccalaureate Graduates will develop the following transferable abilities:

**Oral Communication**
The ability to articulate meaning to others through verbal medium.

**Written Communication**
The ability to articulate meaning to others through written medium.

**Quantitative Reasoning and Representation**
To deepen understanding of the value and need for this type of reasoning, the ability to understand the graphical presentation of data, and to transform information into quantitative and graphical representations.

**Use of Technology**
The ability to use computers and related technologies to achieve desired ends.

**Critical Inquiry and Dialogue**
The ability to ask important questions and to engage in critical conversations with others.

**Understanding the Variety of Human Experience**
The ability to know and interact with people of diverse backgrounds as part of a global community.

**Ethical Reasoning**
The ability to make decisions founded upon values and ethical principles.

**Social and Civic Responsibility**
The ability to engage in actions that strengthen democracy and the community.

**Problem-solving**
The ability to use information and reason to discover solutions to problems.

**Analytical Thinking**
The ability to determine the value and usefulness of information.

**Creative Synthesis**
The ability to create anew out of existing knowledge, material, and imagination.

**Collaboration and working in teams**
The ability to reach desired outcomes through cooperation with others.

**Importance of a Sustainable Environment**
The ability to understand the interdependence of the global environment and humanity.

**Engage with Important Areas of Investigation**
The ability to engage in investigation of human imagination, arts and culture; means of modeling the natural, social, and technical worlds; the values and experiences underlying American society; global and cross-cultural communities; and mutually supportive theory and practice.
Undergraduate Education at the University of Delaware aims to ensure that every student will:

- Attain effective skills in oral and written communication, quantitative reasoning, and the use of information technology.
- Learn to think critically to solve problems.
- Be able to work and learn both independently and collaboratively.
- Engage questions of ethics and recognize responsibilities to self, community, and society at large.
- Understand the diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences.
- Develop the intellectual curiosity, confidence, and engagement that will lead to lifelong learning.
- Develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom.
- Expand understanding and appreciation of human creativity and diverse forms of aesthetic and intellectual expression.
- Understand the foundations of United States society including the significance of its cultural diversity.
- Develop an international perspective in order to live and work effectively in an increasingly global society.
Cultural Diversity
Courses in this area foster greater understanding of the diversity of cultures in the United States, and provide knowledge and critical understanding of these cultures. Courses in this area focus on one or more non-dominant cultures or peoples of the United States. Some courses include comparative study with cultures outside the United States, but the primary focus is on United States experience.

Outcomes:
- Students should develop a critical understanding of the culture of a group or groups in the United States.
- Students will become familiar with one or more methods of research an critical inquiry into culture.
- In courses that examine the artistic production of a group, students should develop an understanding of the relationship between the artistic production and the culture of the group.
- Some courses will provide a comparative perspective on specific groups.
- In some courses students will develop a greater understanding of the dominant culture, in the context of the dominant culture’s interactions with the focus culture(s) that form the primary content of the course.

Fine Arts
Courses in this area provide students with knowledge of the history, theory, and appreciation of various disciplines in the creative arts. Courses in this area may also provide students with studio, performance, and production experiences.

Outcomes:
- Students should develop the ability to recognize the constituent parts of an artwork and of the processes of producing that art.
- Students should have ample opportunity to observe the performance of an art, or when feasible, be actively engaged in the making of that art.
- Students should be able to recognize how aesthetic and critical meanings are attached to artworks and be introduced to some of the ways in which quality can be recognized and assessed.
- Students should be able to recognize aspects of the context (e.g. historical, social, ethnic, economic, geographic) in which artworks are made, particularly how an artwork is linked to the identity of both the artist and the artist’s culture.

Foreign Civilization and Culture
Courses in this area seek to provide students with knowledge about one or more foreign civilizations, cultures, or societies; stimulate their desire for further study of foreign civilizations, cultures, and societies; and foster international and intercultural understanding.

Outcomes:
- Students will develop an understanding of an aspect of a culture or civilization not their own.
Students will be introduced to concepts and artifacts important to or created in the culture or cultures being studied.
Students will become familiar with one or more methods of research and critical inquiry into civilization and culture.
Students will be given practice in articulating their understanding and interpretations of another culture.
(revised March, 2004)

Foreign Language
Courses in this area provide students with speaking, listening, reading, and writing skills in a second language. These courses also provide some knowledge of the culture(s) in which the language is spoken.
Outcomes: Students will be able to read, speak, and understand the language as described in the course descriptions, and will develop enhanced understanding of the culture(s) in which the language is (was) used.

Health and Physical Activity
Courses in this area help students acquire knowledge and skills that are conducive to good health and well-being.
Outcomes:
- Students will understand the theoretical groundings of good health practices, become cognizant of major health risks, and learn strategies for overcoming those risks
- Students will develop critical skills for assessing various structural factors that constrain good health practices and for making informed choices about health behaviors.
- Students will learn and practice the physical and mental skills associated with a specific activity or activities.
(revised Spring 2004 to take effect in Spring 2005)

Historical Perspectives
Courses in this area help students understand a period of the past in its own terms, comprehend the historical processes of change and continuity, sharpen their analytical skills in the evaluation of evidence and develop their ability to generalize, explain, and interpret historical change.
Outcomes
- Students will understand one or more periods of the past in its/their own terms.
- Students will comprehend change and continuity in history.
- Students will improve their ability to evaluate evidence using the tools of historical investigation.
- Students will gain experience and improve their skills in generalizing, explaining, and interpreting historical change.
(revised March, 2004)

Humanities
Courses in this area focus on the ways individuals and cultures have interpreted and understood themselves, others, and the world. Courses exploring the nature and meaning of artistic forms (across the spectrum of the fine arts and literature of the past and present), human values and value systems (including current and historical ideas in philosophy and religion), and other expressions of human aspiration, belief, and creation may be approved in this area. Interdisciplinary courses that explore these topics may also be approved. Courses approved in
this area teach verbal, analytic, perceptual, and imaginative skills needed to interpret and examine culture, community, identity formation, and the human experience.

Outcomes:

- Students will learn about one or more specific cultural topics, problems, artistic forms, value systems, philosophical concepts, or religious ideas in relation to the larger human context in which they become meaningful.
- Students will become familiar with one or more methods of humanistic research, critical inquiry, and analysis and have an opportunity to practice these methods.

(revised march, 2004)

Interpretation of Literature

Building on previously acquired skills of reading and writing, 8G:001 seeks to reinforce in every student a lifetime habit of frequent, intelligent, and satisfying reading. The course, taught in small sections, focuses primarily on "ways of reading," asking students to become aware of themselves as readers, to learn how to deal with different kinds of texts, and to understand how texts exist within larger historical, social, political, and cultural contexts. These "ways of reading," while growing out of various critical approaches to literature, are also transferable to other fields of study.

Outcomes:

- Students use and refine their skills of reading, speaking, and writing to respond critically and sensitively to literary texts.
- Students learn to see themselves as readers, recognizing the influence of individual differences (such as gender, ethnicity, geography) and past experiences on interpretation.
- Students consider the connections between individual texts and broader cultural contexts.

Natural Sciences

Courses in this area explore the scope and major concepts of a scientific discipline. In these courses students learn the attitudes and practices of scientific investigators: logic, precision, experimentation, tentativeness, and objectivity. In courses with a laboratory component students gain experience in methods of scientific inquiry.

Outcomes:

- Students will come to understand the significant segment of natural science and will become familiar with its major concepts and ways of framing questions.
- In laboratory courses, students will use laboratory investigations and appropriate procedures to generate accurate and meaningful data and derive reasonable conclusions from them.
- Students will understand and appreciate (if not adopt) the attitudes of science: logic, precision, experimentation, tentativeness, and objectivity.
- Students will develop and practice those communication skills that apply to the relevant discipline.

Quantitative or Formal Reasoning

Courses in this area help develop analytical skills through the practice of quantitative or formal symbolic reasoning. Courses focus on the presentation and evaluation of evidence and argument, the understanding of the use and misuse of data, and the organization of information in quantitative or other formal symbolic systems including those used in the disciplines of computer sciences, linguistics, mathematics, philosophy, and statistics.

Outcomes:
- Students will learn and practice a method or methods of analytical or formal symbolic reasoning, for example a specific set of mathematical, statistical, computer programming, or logic skills.
- Students will learn to evaluate arguments made in the symbolic system embodied in the course and will become familiar with its major concepts and ways of formulating questions.

(revised May 2003)

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**Rhetoric**

**Brief Description**

[The EPC has asked the Department of Rhetoric to draft a new brief description, criteria statement, and outcomes list, which the EPC will then review.]

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**Social Sciences**

Courses in this area focus on human behavior and the institutions and social systems that shape and are shaped by that behavior. Courses provide an overview of one or more social science disciplines, their theories, and methods.

**Outcomes**

- Students will examine the strengths and weaknesses of at least one method of inquiry distinctive of the social sciences, and become familiar with its major assumptions, concepts, and ways of formulating questions.
- Students will learn to evaluate data, generalizations, and hypotheses in the discipline.
- Students will have the opportunity to practice the methods of the discipline.
- Students will be given practice in developing positions and supporting their ideas with evidence and reason.

(revised May 2003)