

## ABILITY-BASED LEARNING PROGRAM

Since the early 1970s, the Alverno College faculty have been developing and implementing ability-based undergraduate education. More recently, educators at every level — elementary, secondary, undergraduate, postgraduate and professional — have become involved in an effort to redefine education in terms of abilities needed for effectiveness in the worlds of work, family, and civic community.

One of the greatest challenges to faculty in shaping an ability-based program is the tendency to think of the development of abilities in contrast to a mastery of subject matter or content, as if one precludes the other. Through our practice, we have learned that it is impossible to teach for abilities without a subject matter context. The distinctive feature of an ability-based approach is that we make explicit the expectation that *students should be able to do something with what they know*.

Few educators would argue with the proposition that a close reading of a philosophic text should have an impact on the thinking of students beyond merely grasping the meaning. The encounter with complex ideas should help develop the students' ability to reason and question and help them one day to think and act effectively in contexts removed from the original concern of the text. By making such expectations explicit and by clarifying steps one can take to develop cognitive and affective habits, we assist students in learning how to learn.

### Ability-Based Learning Outcomes

The specific abilities identified by our faculty as central to our approach to liberal arts and professional education are:

- Communication
- Analysis
- Problem Solving
- Valuing in Decision-Making
- Social Interaction
- Global Perspectives
- Effective Citizenship
- Aesthetic Responsiveness

These are the most visible features of our learning program. However, it would be a fundamental misperception to see students' development and demonstration of these eight abilities as the primary outcome or end of an Alverno education. Our ultimate goal is the development of each student as an educated, mature adult with such personal characteristics as

- a sense of responsibility for her own learning and the ability and desire to continue learning independently
- self-knowledge and the ability to assess her own performance critically and accurately
- an understanding of how to apply her knowledge and abilities in many different contexts.

Essentially, our goal for students is independent lifelong learning, and the development and demonstration of specific abilities in disciplinary and interdisciplinary contexts are a means to that end. For example, our formal requirement that students develop specific abilities in one course context and then apply them to the subject matter of other courses encourages *every* student in the college to transfer learning independently because the explicit expectation makes *every* student aware of the possibility.

### Individual Abilities as Frameworks for Learning

In the educational program described above, individual abilities cannot be separated from each other or from the individual who performs them. There can be no effective social interaction, for example, without the ability to speak clearly and persuasively; one cannot respond aesthetically without a sensitivity to the values that underlie judgment.

But we make conceptual distinctions among the abilities in order to teach for them. Each ability provides a framework or a plan for students to work effectively with the subject matter of their courses. As students gain experience, they begin to draw upon various abilities they have learned and combine them in more complex ways.

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**1 Develop communication abilities by connecting with everything involved in communication: people, ideas, texts, media, and technology**

- Level 1 — Identify own strengths and weaknesses as communicator
- Level 2 — Demonstrate the interactive nature of communication in a variety of situations that involve combinations of speaking, writing, listening, reading, quantitative literacy, and computer literacy
- Level 3 — Effectively and purposefully make meaning using a variety of communication modes (speaking, writing, listening, reading, quantitative literacy, media literacy, and computer literacy) in a given communication situation
- Level 4 — Communicate creatively in ways that demonstrate integration using disciplinary frameworks

*In majors and areas of specialization:*

- Level 5 — Communicate with habitual effectiveness in relation to disciplinary/professional positions or theories
- Level 6 — Communicate with creativity and habitual effectiveness using strategies, theories, and technology that reflect engagement in a discipline or profession

**2 Develop analytical abilities**

- Level 1 — Show observational skills
- Level 2 — Draw reasonable inferences from observations
- Level 3 — Perceive and make relationships
- Level 4 — Analyze structure and organization

*In majors and areas of specialization:*

- Level 5 — Establish ability to employ frameworks from area of concentration or support area discipline in order to analyze
- Level 6 — Master ability to employ independently the frameworks from area of concentration or support area discipline in order to analyze

**3 Develop facility in using problem solving processes**

- Level 1 — Articulate own problem solving process, making explicit the steps taken to approach the problem(s)
- Level 2 — Analyze the structure of discipline- or profession-based problem solving frameworks
- Level 3 — Use discipline- or profession-based problem solving frameworks and strategies
- Level 4 — Independently examine, select, use, and evaluate various approaches to develop solutions

*In majors and areas of specialization:*

- Level 5 — Collaborate in designing and implementing a problem solving process
- Level 6 — Solve problems in a variety of professional settings and advanced disciplinary applications

Using any or all parts of a problem solving process means:

- Define the problem
- Analyze/brainstorm
- Select a strategy
- Implement a strategy
- Evaluate

**4 Develop facility in making value judgments and independent decisions**

- Level 1 — Identify own values
- Level 2 — Infer and analyze values in artistic and humanistic works
- Level 3 — Relate values to scientific and technological developments
- Level 4 — Engage in valuing in decision-making in multiple contexts

*In majors and areas of specialization:*

- Level 5 — Analyze and formulate the value foundation/framework of a specific area of knowledge, in its theory and practice
- Level 6 — Apply own theory of value and the value foundation of an area of knowledge in a professional context

## COMPETENTIAL LEVELS\*

### 5 Develop facility for social interaction

- Level 1 — Identify own interaction behaviors utilized in a group problem solving situation
- Level 2 — Analyze behavior of others within two theoretical frameworks
- Level 3 — Evaluate behavior of self within two theoretical frameworks
- Level 4 — Demonstrate effective social interaction behavior in a variety of situations and circumstances

*In majors and areas of specialization:*

- Level 5 — Demonstrate effective interpersonal and intergroup behaviors in cross-cultural interactions
- Level 6 — Facilitate effective interpersonal and intergroup relationships in one's professional situation

### 6 Develop a global perspective

- Level 1 — Assess and articulate own knowledge about the world and identify useful strategies for developing awareness of others
- Level 2 — Use course concepts to describe world's diversity and interconnections
- Level 3 — Apply disciplinary concepts and frameworks to understand the influences and implications of diversity and global interconnectedness
- Level 4 — Articulate understanding of globalization and international relationships drawing on varied perspectives and personal reflection

*In majors and areas of specialization:*

- Level 5 — Integrate own global perspective with theoretical approaches to generate a pragmatic response to topics with global dimensions
- Level 6 — Independently generate theoretical and pragmatic approaches to global problems within and across disciplinary and professional contexts

### 7 Develop effective citizenship

- Level 1 — Assess own knowledge and skills in thinking about and acting on community issues
- Level 2 — Identify community issues and strategies to address them
- Level 3 — Examine organizational and community characteristics and identify strategies that facilitate accomplishment of mutual goals
- Level 4 — Apply developing citizenship skills in a community setting

*In majors and areas of specialization:*

- Level 5 — Show ability to plan for effective change in social or professional areas
- Level 6 — Exercise leadership in addressing social or professional issues

### 8 Develop aesthetic engagement: involvement with the arts

- Level 1 — Articulate a personal response to various works of art
- Level 2 — Explain how personal and formal factors shape own responses to works of art
- Level 3 — Connect art and own responses to art to broader contexts
- Level 4 — Take a position on the merits of specific artistic works and reconsider own judgments about specific works as knowledge and experience change

*In majors and areas of specialization:*

- Level 5 — Choose and discuss artistic works which reflect personal vision of what it means to be human
- Level 6 — Demonstrate the impact of the arts on her life to this point and project their role in personal future

\* Alverno faculty are constantly engaged in refining and extending their understanding of the abilities and their developmental levels. If you are interested in further refinements, please contact the Alverno College Institute.

## Teaching and Assessing Student Abilities

In order to make these complex abilities teachable, we have articulated each one as a series of developmental levels corresponding to student progress across her college career, from general education (levels one through four) to specialized work in the majors and supporting areas of study (levels five and six). For each level of ability we have devised criteria for the ability being performed.

These criteria serve two purposes. They provide a student with a tangible goal for her learning, and they give the faculty a standard for judging and certifying that she has demonstrated the ability. These college-wide criteria are generic in the sense that they are not tied to specific courses. Each faculty member writes specific performance criteria in language appropriate to the context of specific courses. But the common understanding on the part of faculty helps to ensure that the student recognizes that the same basic ability has relevance in multiple course contexts and that she is refining her ability through multiple applications.

As a context for evaluating student demonstration of abilities, we have developed the concept of student assessment as a multidimensional process of judging the individual in action. Assessment is multidimensional, both in the sense that students have multiple opportunities to demonstrate specific abilities, and that individual assessments engage students in multiple ways — as writers, as speakers, as creators of artifacts.

In both course-based assessments and integrative assessments that focus student learning from several courses, we elicit samples of performance representing the expected learning outcomes of a course or program. Faculty and other trained assessors observe and judge a student's performance based on explicit criteria. Their diagnostic feedback, as well as the reflective practice of self assessment by each student, helps to create a continuous process that improves learning and integrates it with assessment.

## General Education

Each department emphasizes the abilities most closely related to its studies and is responsible for providing learning and assessment opportunities for those abilities. In beginning courses, students develop and demonstrate levels one and two of the abilities. They continue to advance through the levels within a coherent arrangement of courses. The distribution of learning and assessment opportunities among all general education courses in the humanities, fine arts, natural and behavioral sciences as well

as the introductory courses in majors and supporting areas of study, assures students of multiple opportunities to demonstrate all eight abilities through level four. And since each course beyond the introductory level carries ability prerequisites as well as course prerequisites, students are assured of taking each course when they are ready to develop the levels of abilities emphasized there.

## Specialization

Each department has specified the integrated knowledge/performance expectations of advance level undergraduate specialization in its major and has related those to the appropriate general abilities of the entire college curriculum. For example, English faculty have determined that one of the outcomes they expect for their majors is to "communicate an understanding of literary criticism, question its assumptions, and use its frameworks to analyze and evaluate works." The department has made explicit connections between this outcome and communication, analysis, valuing, and aesthetic response abilities at the advanced levels.

For a major in chemistry, students must "use different models of chemistry to analyze and synthesize chemical data and to critique the data, strategies, and models of chemistry." The primary focus of these outcomes is level six of analysis — independent application of theory. But a student must also draw upon her valuing ability to critique the underlying assumptions of the theoretical models, and she must be able to communicate her analysis and criticism effectively in different modes. In essence, students at the advanced level must be able to engage all of their abilities to be effective.

This brief overview represents a curriculum in the process of ongoing development. Over the years we continue to revise our sense of the meaning of the abilities. Our insights grow from our experience of teaching them and studying how our students develop them. We expect that our ability-based curriculum will always be a "work in progress" and that we will be able to serve as models of lifelong learners for our students.

Materials for further reading on teaching for outcomes across the curriculum, on student assessment, on ability-based curricula in major fields, and research and evaluation studies of the value, worth, and effectiveness of the curriculum are available from:

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