Bowling Green State University’s programs of study are designed not only to foster learning but also to enable students to apply what is learned. By the time of graduation, BGSU students will demonstrate substantial mastery of the learning outcomes in a major field of study; furthermore, students will think critically and constructively, communicate skillfully, and engage others actively and effectively so that they participate fully in society as well-informed citizens.

BGSU graduates are **critical and constructive thinkers**, as shown by proficiency in inquiry, creative problem solving, and examining values in decision making.

- Inquiry – a close examination of a matter in a search for information or truth; seeking for information by asking questions. BG graduates’ training in inquiry allows them to systematically explore issues, collect and analyze evidence, and make informed judgments.
- Creative Problem Solving – producing through original artistic or imaginative effort a result or conclusion. As creative problem solvers, BG graduates synthesize knowledge within and across courses and programs, integrate theory and practice, and link academic and life experiences.
- Examining Values in Decision Making – observing carefully and critically the principles, standards, or qualities considered worthwhile or desirable that are present in a decision or dilemma. BG graduates recognize and describe values that arise in the content or methods of a subject area; they identify the ways these values relate to academic or public discussions of contemporary issues; and they evaluate and articulate the way values influence decisions.

BGSU graduates **communicate skillfully** in multiple forms of expression, such as logical, mathematical, visual, spatial, or musical. All students have proficiency in written and oral communication, with additional expertise in other symbol systems necessary to a major field of study.

- Writing – a social activity in which the author uses written text to purposefully relate meaning to an intended audience. BG graduates are proficient in multiple forms of writing, with particular expertise in the styles and conventions of a major field of study.
- Presenting – to communicate in a public setting. "Presenting" is more than the oral counterpart of "writing." Inasmuch as presenting includes the use of non-verbal forms of communication and a variety of media. BG graduates employ diverse presentation skills in support of effective oral presentation.

BGSU graduates **engage others in action**, as shown by proficiency in participating and leading.

- Participation – to have a part or share in some activity. "Participating" involves active engagement in learning and in the democratic process, leading to socially responsible action in one’s communities. BG graduates are prepared to fulfill civic and professional responsibilities through reasoned and open participation. They relate themselves and their culture to diverse cultures within the U.S. and the world.
- Leadership – to guide or influence a group to achieve goals. "Leading" does not require formal authority or power but rather is a matter of influence, integrity, spirit, and respect. BG graduates are prepared to be skilled and ethical leaders who contribute to the effective functioning of society at all levels.

The University learning outcomes are integral to the BG Perspective (liberal studies or general education) curriculum, the various majors, and university programs, and thus describe the basis for continuity and coherence in Bowling Green State University’s learning community.
Developmental Stages of Inquiry

Inquiry - a close examination of a matter in a search for information or truth; seeking for information by asking questions. "Inquiry" calls attention to systematic processes of exploring issues, collecting and analyzing evidence, and making informed judgments.

Inquiry focuses on issues, objects, or works. An issue, object, or work is defined, for this purpose, as anything that may be analyzed by a student depending on his/her area of inquiry. This may include research articles, novels, plays, works of art, court opinions, scientific formulas, human interactions, history, essays, and other texts.

Stage 1
- Observes and records most evident aspects of issue/object/work
- Identifies and defines the explicit elements of issue/object/work
- Articulates the observations
- Develops accuracy of observations through practice, assessment, feedback, and self-assessment
- Uses oral and written exercises and discussions to increase observational skills and the use of terminology
- Gathers information from few sources

Stage 2
- Continues to refine observational skills by practicing using feedback from assessments
- Identifies assumptions and implicit implications of issue/object/work
- Learns to make inferences based on observations
- Articulates the methods by which inferences were made from observations
- Uses feedback on the quality of the inferences as well as on one’s thought process in order to improve self-assessment
- Uses experiences of what is being studied to develop own understanding.
- Recognizes concepts once they have been applied.
- Recognizes when one’s own experiences may be an example of concept.
- Gathers information from a few, critical sources

Stage 3
- Explores the relationships both between and among the inferences and observations
- Articulates the process used to make and examine these relationships
- Learns from modeling and examples of observations/inferences/relationships
- Applies concepts to experiences
- Explores issue/object/work from others’ perspectives
- Seeks a thorough understanding of issue/object/work prior to making judgments about issue/object/work
- Gathers information from multiple sources

Stage 4
- Integrates observations/inferences/relationships of issue/object/work
- Assesses the significance of the relationships to the overall meaning of the work
- Articulates the importance of the observations/inferences/relationships to the overall unity and meaning of the work
- Explores issue/object/work from multiple perspectives
- Makes judgments only after thoroughly exploring issue/object/work
- Explores issue/object/work using methods from multiple disciplines
- Examines relationships between issues/objects/works
- Gathers information from multiple sources and evaluates their credibility
Developmental Stages of Creative Problem Solving

Creative Problem Solving - producing through original artistic or imaginative effort a result or conclusion. "Creative problem solving" can be shown in synthesizing knowledge within and across courses and programs, integrating theory and practice, linking academic and life experiences, and relating one's self and culture to diverse cultures within the U.S. and globally.

**Stage 1**
- Understands basic elements of problem at hand
- Reorganizes information at hand and incorporates into knowledge base
- Articulates problem solving process
- Uses problem solving vocabulary appropriately
- Demonstrates understanding of either a generic or discipline-specific problem solving process

**Stage 2**
- Applies a problem solving process using a framework of the discipline
- Applies instructor selected discipline concepts to a problem situation
- Uses discipline vocabulary appropriately

**Stage 3**
- Refines self-awareness as a problem solver (meta-cognitive emphasis)
- Recognizes alternative constructions and consequences related to problem solving
- Uses the language of problem solving within the disciplinary framework
- Uses disciplinary frameworks to develop solutions
- Brings together analytic thinking and problem solving

**Stage 4**
- Examines various approaches to define the problem
- Evaluates and selects the most effective approach to define the problem
- Uses selected problem solving approach to solve the problem
- Evaluates solution to the problem
- Explains the relationship between approach selection and problem definition and solution
- Approaches issues and problems integrating from multiple frameworks and finding commonality
- Uses alternative disciplinary and cultural perspectives when approaching problem solving tasks
Developmental Stages of Examining Values in Decision Making

Examining Values in Decision Making - observing carefully and critically the principles, standards, or qualities considered worthwhile or desirable that are present in a decision or dilemma. Ability in valuing is shown by recognizing and describing values that arise in the content or methods of a subject area, by identifying the ways these values relate to academic or public discussions of contemporary issues, and by articulating and evaluating the reasons and justifications that support particular values.

Stage 1
- Identify, understand, and begin to use basic vocabulary of valuing and decision-making (e.g., value, value indicator, value judgment, value conflict, prioritizing of values, value system, moral decision-making)
- Formulate one’s own values
- For each of the values identified, indicate the sources which have contributed to its development (e.g., family, religion, education, personal experience)
- Prioritize one’s values

Stage 2
- Identify the value content of a work in the arts or humanities
- Identify and support by examples the value-orientation of the work as a whole as well as of its components
- Relate the values inferred from the work to the historical and cultural content of the work
- Explain the criteria by which one made judgments about the values identified in the work and in the culture
- Compare the values identified in the work with one’s own values

Stage 3
- Identify specific scientific and technological developments and identify the problems they pose for societal and individual values
- Identify the values out of which specific scientific developments have arisen
- Recognize value expressions and value judgments (explicit and implicit) in scientific and technological works
- Predict and evaluate social consequences (in terms of changing societal values) of proposed technological change
- Formulate alternative courses of action to specific proposed changes, making explicit the values underlying each alternative
- Make and substantiate value judgments regarding technological change
- Analyze value conflict within one’s own value system and in broader societal context

Stage 4
- Formulate the problem and describe the context of decisions to be made
- Identify one’s goal(s) and the values underlying it
- Identify the obstacles to one’s goal(s) and the values underlying them
- Generate several realistic alternative methods of achieving the goal
- Predict the consequences of each of the alternatives
- List the resources available to achieve each alternative
- Identify and rank order one’s values; draw the implications for each value of each of the alternatives
- Accept one alternative and design a plan of achievement
- Provide for overcoming or minimizing obstacles in implementation of plan
- Review and evaluate one’s own decision-making behavior
Developmental Stages of Writing

Writing - to be the author, to compose. "Writing" requires fluency not only in English or another language but often also in other symbol systems, such as logical, mathematical, visual, spatial, musical or electronic.

Stage 1
- Learns to self-assess writing
- Identifies strengths & weaknesses of individual performance
- Learns to be objective when assessing individual performance
- Practices evaluating one’s own writing and the writing of others
- Identifies whether or not writing contains: clear focus, adequate development of arguments or points, clear and coherent paragraphing, appropriate use of examples and evidence, appropriate word choice, and appropriate sentence structure

Stage 2
- Makes the connection that analytical reading is the reverse process of writing
- Analyzes writing of others and compares with one’s own writing to begin modeling
- Self-confidence increases with respect to writing
- Begins experimenting by including self-expression in writing

Stage 3
- Develops appropriate topic
- Learns to use appropriate formats of writing depending upon the purpose
- Identifies sources of information based on a format that is dependent on purpose of writing
- Directs writing to appropriate audience
- Learns to develop a thesis statement
- Learns to structure writing so that it contains an introduction, conclusion, and arguments that follow logically and support the thesis
- Uses transitions to connect sentences, paragraphs, and arguments
- Incorporates a style and creativity to make the piece of writing interesting

Stage 4
- Uses appropriate terminology
- Provides evidence for conclusions and arguments
- Is able to discuss credibility of sources
- Analyzes sources to determine their relevance to the topic
- Synthesizes information from sources in order to enhance purpose of writing
Developmental Stages of Presenting

Presenting - to make a presentation. "Present" is the oral counterpart of "write," requiring the same fluencies and in addition fluency with bodily-kinesthetic symbols.

Stage 1
- Learns to self-assess presentations
- Identifies strengths & weaknesses of individual performance
- Learns to be objective when assessing individual performance
- Practices evaluating one’s own presentations and the presentations of others
- Identifies whether or not presentation contains: articulation, voice projection, bodily response, organization, use of examples, and variations in pitch, intonation, volume, and pause

Stage 2
- Makes the connection that analytical listening is the reverse process of presenting
- Analyzes presentations of others and compares with one’s own presentations to begin modeling
- Self-confidence increases with respect to presenting
- Begins experimenting by including self-expression in presentations

Stage 3
- Develops appropriate topic
- Learns to use appropriate formats of presentation depending upon the purpose
- Directs the presentation to the appropriate audience
- Develops a clear focus for the presentation
- Speaks to the audience rather than reading aloud
- Organizes presentation so that it contains an introduction, arguments that support the focus, and a conclusion
- Articulates, and uses other vocal methods that convey a sense of understanding of the topic
- Personal appearance is appropriate for the form of presentation

Stage 4
- Uses appropriate terminology
- Provides evidence for conclusions and arguments
- Is able to discuss credibility of sources
- Analyzes sources to determine their relevance to the topic
- Synthesizes information from sources in order to enhance purpose of presentation
Developmental Stages of Participation and Leadership

Participation - to have a part or share in something. "Participating" is a matter of active engagement, rather than passive observation, and is shown through working effectively in diverse groups and teams, as well as through cooperation and respect for others.

Leadership - to guide or influence a group to achieve goals. "Leading" does not require formal authority or power but rather is a matter of influence, integrity, spirit and respect.

Stage 1
- Learns to distinguish different types of group member behavior such as: reinforcing, clarifying, mediating, interfering, withdrawing, challenging, leading, summarizing, evaluating, attacking, dominating, defensive, advocating and closure (definitions of forms of behavior are listed below).
- By identifying behaviors, learns to assess own and others' interactions in groups accurately
- Identifies group and individual goals

Stage 2
- Understands what types of behaviors are expected for the given interaction
- Identifies own and others' behaviors within the interaction
- Evaluates behaviors in relation to the goal(s) of the interaction

Stage 3
- Determines effective behaviors using an understanding of interaction behaviors and comprehension of interaction goal(s).
- Makes comparisons between these effective behaviors and own behaviors
- Determines how to modify behavior in order to improve effectiveness of interaction

Stage 4
- Selects and demonstrates appropriate effective behaviors depending on type of interaction
- Transfers and generalizes understanding of social interaction and behaviors in order to learn to be effective in unfamiliar cultures or subcultures
- Adapts to lead in new groups

Reinforcing - Encourages and supports participants; demonstrates openness and acceptance of others' ideas; gives recognition for contribution; encourages participation from all group members.

Clarifying - Asks other members for information or elaboration in order to clarify their ideas or offers data or elaboration in order to clarify their position related to the task

Mediating - Persuades members to constructively consider differences of opinion; searches for common elements; attempts to alleviate disagreement; is willing to compromise one's ideas for the accomplishment of the group's task

Interfering - Verbal or nonverbal behavior which distracts the group members from the task at hand

Withdrawing - Stops participating in the group process in a way that is obvious to other members of the group

Challenging - Requests justification or evidence from another person to support their viewpoint

Leading - Leads group by showing persistence in task-directed activities: initiates discussion, tries to keep members on the “right track”; proposes goals and tasks to stimulate action within the group and facilitates movement toward the group’s goals.

Summarizing - Restates major points and content that has been discussed up until that point

Evaluating - Makes judgments about the quality of the group process and the participation of group members: assesses whether or not the group solution meets the criteria of the task

Attacking - Verbal or nonverbal behavior which is perceived to be hostile or derogatory towards other group members

Dominating - Taking power and control in a group, although it was not assigned or delegated by other group members or predetermined by outside authority or status

Advocating - Defends their position or beliefs as related to the task; tries to persuade other group members to their point of view

Defensive - Overreacting to another group member’s challenge or one’s statements

Closure - Reaches consensus on completion of task and makes plans for any further meetings
Hypothesized developmental sequence rubrics for assessing inquiry

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting Evidence</td>
<td>No evidence is presented to support analysis or judgment</td>
<td>Limited and insufficient evidence is presented</td>
<td>Only supportive critical information is cited in support of the work, but no contradictory or conflicting evidence is collected.</td>
</tr>
<tr>
<td>No evidence</td>
<td>Limited evidence</td>
<td>supportive only</td>
<td>combined information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyzing Pieces of Evidence</td>
<td>No analysis of the piece of evidence is identified.</td>
<td>Only the most evident and explicit elements applying to the piece of evidence are analyzed.</td>
<td>Assumptions, implicit implications, and/or inferences for the piece of evidence are analyzed.</td>
</tr>
<tr>
<td>no analysis</td>
<td>explicit</td>
<td>implicit</td>
<td>relationships</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecting Evidence</td>
<td>No connections are drawn among pieces of evidence to support the work.</td>
<td>Only superficial connections are cited as evidence in support of the work.</td>
<td>Connections among supportive critical information are drawn, but contradictory or conflicting evidence is ignored.</td>
</tr>
<tr>
<td>no connections</td>
<td>superficial</td>
<td>affirmative connections</td>
<td>all connections</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making Informed Judgements</td>
<td>Judgments and conclusions are not made.</td>
<td>Judgments and conclusions are based upon anecdotal evidence.</td>
<td>Judgments and conclusions are based upon mainly a single perspective, theory, or discipline.</td>
</tr>
<tr>
<td>no judgments</td>
<td>anecdotal</td>
<td>single</td>
<td>multiple</td>
</tr>
</tbody>
</table>

King & Kitchener as students may go from stage 2 to stage 1? stage 5: relationships?