

# QEP Critical Thinking Assessment Rubrics

These critical thinking rubrics, one for each of the QEP's critical thinking student learning outcomes, represent a synthesis of approaches to what critical thinking is, what it looks like, and what it means to do it well. The rubrics employ the Universal Intellectual Standards developed by the Foundation for Critical Thinking (FCT); additionally, the majority of the criteria were adapted from aspects of critical thinking included in the textbook *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life* by Richard Paul and Linda Elder of FCT.

Many other criteria were adapted from the critical thinking-content infusion approach of Robert Swartz of the National Center for Teaching Thinking. Other criteria were adapted from the approaches to critical thinking assessment of Director of Insight Assessment, Peter Facione, and his *Holistic Critical Thinking Rubric*. Some criteria were adapted from Susan K. Wolcott and Charlene J. Gray's article *Assessing and Developing Critical Thinking Skills* presented at the 2003 Assessment Institute convened by Indiana University and Purdue University Indianapolis. Other criteria were adapted from Thomas K. Angelo and K. Patricia Cross's book, *Classroom Assessment Techniques*. Additional criteria were developed by faculty at St. Philip's College.

General descriptions for each level of the rubrics are:

## Skillful Critical Thinking

Skillful critical thinking fulfills the full range of specific criteria at the indicated standard.

## Emergent Critical Thinking

Emergent critical thinking fulfills the full range of specific criteria, but does not do so at the indicated standard.

## Critical Thinking Not Demonstrated

Demonstration of critical thinking does not fulfill the specified criteria.

# 1. Students will demonstrate their ability to pose vital questions and identify problems, formulating them clearly and precisely.

## Skillful Critical Thinking

**The student's work consistently demonstrates all or almost all of the following:**

- fairly identifies assumptions he or she uses to pose questions or identify problems
- accurately identifies his or her purpose for asking questions or identifying problems
- accurately poses specific, significant questions that have to be answered in order to solve important problems or make important decisions
- discerns between relevant and irrelevant questions
- clearly and logically expresses his or her question(s) or problem(s) in several ways to recognize complexity
- clearly and precisely states questions or problems in specific language related to the situation/context
- accurately explains the significance of the most important uncertainties of the question(s) or problem(s)

## Emergent Critical Thinking

**The student's work demonstrates most or many of the following:**

- identifies assumptions he or she uses to pose questions or identify problems, but assumptions are unfair
- identifies his or her purpose for asking questions or identifying problems, but purpose is inaccurate
- poses specific questions that have to be answered in order to solve important problems or make important decisions, but some essential questions are not asked or are inaccurate
- discerns between relevant and irrelevant questions, but with minor errors
- expresses his or her question(s) or problem(s) in several ways to recognize complexity, but the expressions are unclear or illogical
- states questions or problems in specific language related to the situation/context, but language is ambiguous or imprecise
- explains the significance of the most important uncertainties of the question(s) or problem(s), but some uncertainties are absent, or explanation contains minor errors.

## Critical Thinking Not Demonstrated

**The student's work consistently demonstrates all or almost all of the following:**

- misidentifies assumptions he or she uses to pose questions or identify problems, *or* presents assumptions as facts
- does not identify his or her purpose for asking questions or identifying problems
- poses extraneous or unimportant questions to be answered in order to solve important problems or make important decisions
- does not distinguish between relevant and irrelevant questions
- expresses his or her question(s) or problem(s) in only one way; does not recognize complexity of questions or problems
- states questions or problems in language unrelated to the situation/context
- does not explain the significance of the most important uncertainties of the question(s) or problem(s)

Standards from Foundation for Critical Thinking's (FTC) *Universal Intellectual Standards*; criteria adapted from Paul & Elder, Peter Facione, Robert Swartz, Angelo & Cross, Wolcott & Gray, and St. Philip's College faculty

## 2. Students will demonstrate their ability to gather relevant information and interpret it effectively.

### Skillful Critical Thinking

**The student's work consistently demonstrates all or almost all of the following:**

- provides clear evidence of his or her accurate assessment of the reliability of sources
- clearly and fairly articulates his or her assumptions when he or she interprets information
- formulates appropriately broad and deep categories to understand, describe, or characterize information
- identifies information as logical, significant and relevant based on how it helps to answer specific questions
- appropriately prioritizes information he or she has gathered based on how it helps to answer specific questions
- clearly expresses reasonable and valid interpretations of statements, logic, data, facts, questions, graphs, theories, assertions, descriptions, etc.

### Emergent Critical Thinking

**The student's work demonstrates most or many of the following:**

- provides evidence of his or her assessment of the reliability of sources, but his or her articulation of the evidence is unclear
- articulates his or her assumptions when he or she interprets information *or* articulates his or her assumptions when he or she interprets information, but does so unclearly
- formulates appropriate categories to understand, describe, or characterize information, but categorization is superficial
- identifies information as logical, significant and relevant, based on how it helps to answer specific questions, but some important and/or relevant information is missing
- prioritizes information he or she has gathered based on how it helps to answer specific questions, but his or her priorities are unclear or inappropriate
- expresses reasonable and valid interpretations of statements, logic, data, facts, questions, graphs, theories, assertions, descriptions, etc., but the expression may be unclear

### Critical Thinking Not Demonstrated

**The student's work consistently demonstrates all or almost all of the following:**

- provides little or no evidence of his or her assessment of the reliability of sources *or* the assessment is inaccurate
- articulates his or her assumptions as fact when he or she interprets information
- formulates unclear or inappropriate categories to understand, describe, or characterize information *or* does not categorize
- misidentifies or does not identify information as important and relevant, based on how it helps to answer specific questions
- erroneously prioritizes information he or she has gathered based on how it helps to answer specific questions, *or* does not prioritize
- expresses unreasonable and/or invalid interpretations of statements, logic, data, facts, questions, graphs, theories, assertions, descriptions, etc. *or* does not interpret information

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### 3. Students will demonstrate their ability to impartially consider alternative systems of thought, recognizing and assessing assumptions, implications, and practical consequences.

#### Skillful Critical Thinking

**The student's work consistently demonstrates all or almost all of the following:**

- expresses an appropriately broad point of view in his or her approach to problems and issues
- clearly and fairly articulates other points of view and their reasoning to adequately understand these other viewpoints
- fairly articulates information against (not just for) his or her own position
- clearly and accurately distinguishes between reasoning involving definite correct and incorrect answers and definite procedures for getting those answers, and reasoning in which there are competing lines of thought
- identifies logical, significant, potential implications and consequences of alternative systems of thought
- clearly expresses assumptions that are reasonable and justifiable given the situation and evidence
- clearly expresses logical assumptions that are consistent with each other
- identifies logical variables that might lead to negative consequences

#### Emergent Critical Thinking

**The student's work demonstrates most or many of the following:**

- expresses a point of view in his or her approach to problems and issues, but the point of view is not appropriately broad
- articulates other points of view and their reasoning to adequately understand these other viewpoints, but the articulation is unclear or unfair
- articulates information against (not just for) his or her own position, but the representation is unfair
- distinguishes between reasoning involving definite correct and incorrect answers and definite procedures for getting those answers, and reasoning in which there are competing lines of thought, but includes minor errors
- identifies significant, potential implications and consequences of alternative systems of thought, but does not include some implications or consequences
- expresses assumptions that are reasonable and justifiable given the situation and evidence, but the expression is unclear
- clearly expresses assumptions that are mostly consistent with each other, or expresses assumptions that are consistent but unclear
- identifies some variables that might lead to negative consequences

#### Critical Thinking Not Demonstrated

**The student's work consistently demonstrates all or almost all of the following:**

- expresses a narrow point of view in his or her approach to problems and issues
- unfairly articulates other points of view and their reasoning and/or does not understand these other viewpoints
- unfairly articulates or does not articulate information against (not just for) his or her own position
- does not distinguish between reasoning involving definite correct and incorrect answers and definite procedures for getting those answers, and reasoning in which there are competing lines of thought
- misidentifies or does not identify significant, potential implications and consequences of alternative systems of thought
- expresses assumptions that are unreasonable and unjustifiable given the situation and evidence
- expresses assumptions that are inconsistent with each other
- misidentifies or does not identify variables that might lead to negative consequences

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## 4. Students will demonstrate their ability to develop well-reasoned conclusions and solutions, checking them against relevant criteria and standards.

### Skillful Critical Thinking

**The student's work consistently demonstrates all or almost all of the following:**

- clearly articulates inferences that follow logically from the evidence presented
- clearly expresses multiple logical and plausible alternative conclusions and solutions
- clearly and accurately distinguishes between attainable and unattainable solutions
- clearly and precisely asserts logical conclusions only when she or she has sufficient evidence to support them strongly
- clearly and precisely articulates how he or she used a complex, systematic and logical process of critical inquiry to construct solution(s)
- clearly articulates an appropriate and broad range of relevant standards to judge conclusions and solutions in a specific context
- clearly and precisely applies relevant criteria to substantiate his or her logical conclusions or solutions
- accurately tests his or her conclusions or solutions against relevant standards

### Emergent Critical Thinking

**The student's work demonstrates most or many of the following:**

- articulates inferences that follow from the evidence present, but articulation is unclear
- expresses multiple logical alternative conclusions and solutions, but expression is unclear
- distinguishes between attainable and unattainable solutions, but does so unclearly
- asserts logical conclusions with sufficient evidence to support them, but conclusion may be unclear or imprecise
- articulates how he or she used a complex, systematic and logical process of critical inquiry to construct solution(s), but articulation may be unclear or imprecise
- articulates an appropriate and broad range of relevant standards to judge conclusions and solutions in a specific context, but articulation may be unclear or contain minor errors
- applies relevant criteria to substantiate his or her logical conclusions or solutions, but application may be unclear or imprecise
- tests his or her conclusions or solutions against relevant standards, but tests may be flawed

### Critical Thinking Not Demonstrated

**The student's work consistently demonstrates all or almost all of the following:**

- makes no inferences or makes inferences that do not follow from the evidence presented
- does not express alternative conclusions and solutions or expresses illogical and/or implausible alternative conclusions and solutions
- does not distinguish between attainable and unattainable solutions or does so inaccurately
- presents illogical conclusions or asserts conclusions without sufficient evidence to support them
- does not exhibit a complex, systematic and logical process of critical inquiry to construct solutions
- does not articulate relevant standards to judge conclusions
- does not apply standards to substantiate his or her conclusions or solutions
- does not test his or her conclusions or solutions against relevant standards

Standards from Foundation for Critical Thinking's (FTC) *Universal Intellectual Standards*; criteria adapted from Paul & Elder, Peter Facione, Robert Swartz, Angelo & Cross, Wolcott & Gray, and St. Philip's College faculty

## 5. Students will demonstrate their ability to communicate effectively with others in determining solutions to complex problems.

### Skillful Critical Thinking

**The student's work consistently demonstrates all or almost all of the following:**

- clearly and precisely articulates a significant purpose that distinguishes it from related purposes
- clearly and precisely explains key concepts and ideas that he or she uses
- clearly explains the basic, relevant implications of the key words and phrases he or she uses
- clearly expresses his or her thinking about the concepts he or she uses at a variety of complex levels
- accurately uses clear stipulation, description, analogy, or figurative expression to remove confusing, unintended vagueness or ambiguity from his or her communication
- accurately stays on track with his or her clearly and precisely articulated purpose

### Emergent Critical Thinking

**The student's work demonstrates most or many of the following:**

- articulates a significant purpose that distinguishes it from related purposes, but does not do so clearly or precisely *or* articulates an insignificant purpose
- explains key concepts and ideas that he or she uses, but does not do so clearly or precisely
- explains relevant implications of key words and phrases she or she uses, but explanation is unclear *or* explains irrelevant implications
- expresses his or her thinking about the concepts he or she uses, but does not do so clearly *or* displays thinking at only one level
- uses stipulation, description, analogy, or figurative expression to remove confusing, unintended vagueness or ambiguity from his or her communication, but the communication is unclear or inaccurate
- mostly stays on track with his or her articulated purposes, but sometimes strays off purpose

### Critical Thinking Not Demonstrated

**The student's work consistently demonstrates all or almost all of the following:**

- does not articulate a purpose that distinguishes it from related purposes
- does not explain key concepts and ideas that he or she uses
- does not explain implications of the key words and phrases he or she uses
- expresses his or her thinking about the concepts he or she uses at only one level
- is confusing, vague, or ambiguous
- does not stay on track with his or her purpose