

Critical Thinking Rubric

The SUNY Trustees learning outcomes for critical thinking focus on arguments but offer little guidance as to their nature or variety. We conceive of an argument as any piece of reasoning aimed at deciding what to believe or what to do. On this conception, we are engaged in argument whenever we try to decide what we ought to think about some topic, whether the topic concerns the past, the present or the future, and whenever we try to decide how best to achieve some practical goal. Arguments thus include designing an experiment to test an hypothesis, deciding how best to measure some phenomena, defending a view about the nature and value of free will, explaining the causes of some historical event, predicting the outcome of some physical process, evaluating a performance or work of art, and balancing the costs and benefits of some public policy. These otherwise very different activities are unified by the fact that doing them well requires thinking critically both about the subject matter at hand and about the decision process itself. We designed our rubric to capture at an abstract level what these decisions have in common when they are all well made.

The word “argument” in the rubric is thus to be understood as applying to a wide variety of different kinds of activities aimed at deciding what to believe or to do. The word “premise” applies to the evidence or grounds on which a decision or recommendation is based. Thus, the results of an experiment or measurement may be the premises for a scientific conclusion or a policy recommendation, knowledge of initial conditions and laws of nature may be the premises for a prediction, and an evaluation of a dance may be premised on aesthetic criteria. In all such cases, thinking critically requires distinguishing the question whether those premises are correct or credible from the question whether they provide sufficient support to accept the conclusion.

The rubric does not attempt to define when the premises of an argument are “acceptable” or when they provide “sufficient” evidence to support the conclusion. This is a notoriously difficult task, especially since standards of acceptability and sufficiency seem to vary from one discipline to another and from one historical period to another. While it is important for students to be aware of the ideal of a logically valid argument, where the truth of the premises would guarantee that of the conclusion, this ideal provides little practical guidance in ordinary life.

The first learning outcome concerns a student’s critique of some argument and the second concerns a student’s attempt to develop one. In both, the word “argument” is meant to include any kind of reasoning aimed at deciding what to believe or do. Thus, the student’s critique may target some specific policy recommendation or some historical explanation, and the argument developed may be a proposal to test some hypothesis or a defense of some philosophical view. In principle, one piece of work would suffice so long as it required the student to both critique an argument and construct an argument. But a portfolio including one piece of work analyzing and evaluating an argument and another supporting and defending some conclusion would perhaps be more practical.

1. Students will identify, analyze, and evaluate arguments as they occur in their own and others' work.

Exceeding: The student's work

1. Identifies the target argument(s) and clearly distinguishes it from any extraneous elements such as expressions of opinion and descriptions of events.
2. Carefully articulates the argument's conclusion, clearly distinguishes it from its premises and identifies most relevant definitions and/or hidden assumptions.
3. Clearly and correctly assesses whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Clearly and correctly assesses the reasonableness of the premises, including the credibility of their sources (e.g., observation, testimony, measurement, experiment, etc.), independently of whether the premises support the conclusion.

Meeting: The student's work

1. Identifies the target argument(s).
2. Distinguishes the argument's conclusion from its premises and some effort is made to identify relevant definitions and/or hidden assumptions.
3. Correctly assesses whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Correctly assesses the reasonableness of the premises, including the credibility of their sources, independently of whether they support the conclusion.

Approaching: The student's work

1. Identifies the target argument(s) but includes extraneous elements such as expressions of opinion and descriptions of events.
2. Distinguishes the argument's conclusion from its premises, but little effort is made to identify relevant definitions and/or hidden assumptions.
3. Attempts to assess whether the argument's premises provide sufficient logical support for the conclusion, independently of whether the premises are true.
4. Attempts to assess the reasonableness of the argument's premises, but little effort is made to consider the credibility of the premises' sources.

Not Meeting: The student's work

1. Does not isolate the argument(s) from extraneous elements in the text.
2. Does not identify the argument's conclusion or distinguish it sufficiently from the premises and little or no effort is made to identify relevant definitions or hidden assumptions.
3. Does not address whether the argument's premises provide sufficient logical support for the conclusion, independently of the truth of the conclusion.

4. Does not consider whether the premises are reasonable to believe, independently of whether they support the conclusion or else no effort is made to evaluate the credibility of the premises' sources.

2. Students will develop well-reasoned arguments.

Exceeding: the student's work

1. Develops a clearly articulated argument, using evidence and/or systematic logical reasoning in support of a conclusion or point of view.
2. Identifies relevant qualifications or objections or alternative points of view and prioritizes evidence and/or reasons in support of the conclusion.
3. Describes the broader relevance, significance or context of the issue and/or applies the reasoning to a novel problem.

Meeting: the student's work

1. Presents an argument using evidence and /or logical reasoning in support of a point of view.
2. Identifies some qualifications or objections or alternative points of view.
3. Describes the broader relevance, significance of context and/or applies the reasoning to a novel problem.

Approaching: the student's work

1. States a conclusion or point of view but does not organize the evidence or reasons in a logically adequate way.
2. Does not clearly identify or respond to relevant objections or alternative points of view.
3. Does not adequately describe the broader relevance or significance or apply the reasoning to a novel problem.

Does not meet: the student's work

1. Does not clearly state a conclusion or point of view or else little or no supporting reasoning or evidence is presented.
2. Makes no attempt to recognize or respond to objections or alternative points of view.
3. Makes no attempt to describe the broader relevance or significance or to apply the reasoning to a novel problem.