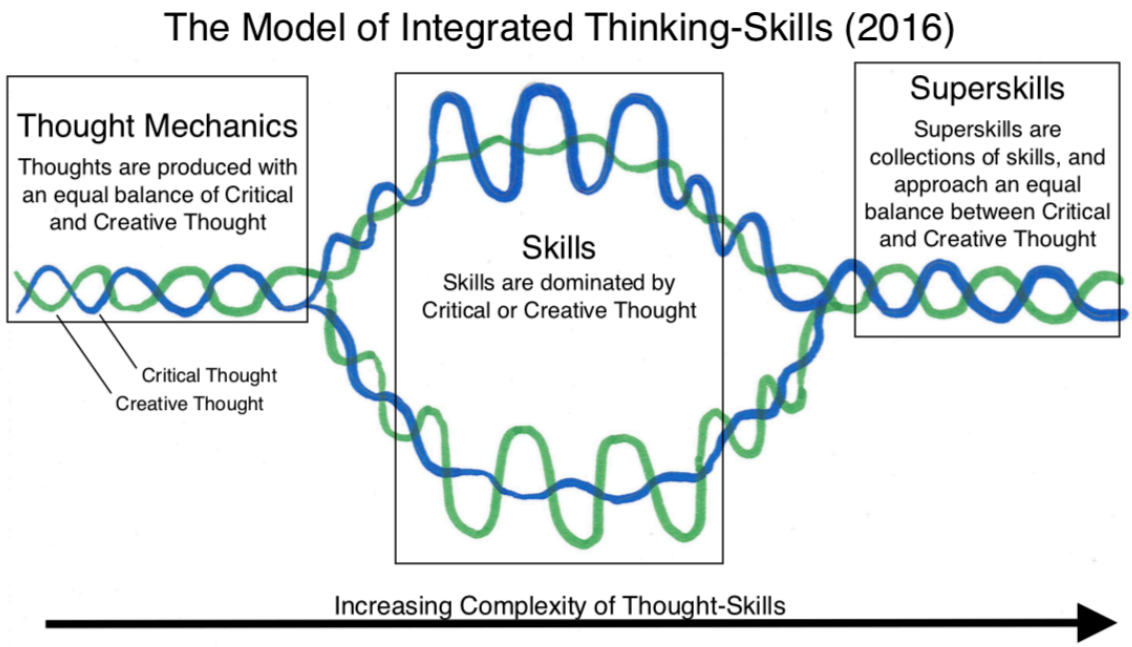
Short definition:
Critical thinking may be defined as a thinking style that allows individuals in any discipline to reason and rationalize within their own specific contexts.

Expanded definition:
Every thought-producing mind thinks critically. Therefore, critical thought transcends disciplines, yet it occurs in a mental context unique to each person. Critical thinkers are able to recognize and characterize their own context. Our contexts are defined by 1) the discipline in which we specialize, 2) our personal mental environment (which is affected by human elements including personal history, beliefs, and attitudes, values) and 3) situational circumstances.

There are different levels at which we think. The following figure provides a visual depiction of these levels. Critical thinking and creative thinking are present in every level.



The primary level of thought, or the *Thought Mechanics* level, is the level where we simply produce coherent thoughts. Generating sensible thoughts requires an equal balance of creative and critical thinking, so at the *Thought Mechanics* level, critical thinking and creative thinking are inseparable.

> When you produce thoughts, your brain uses creative thinking to assemble ideas together in response to some stimuli (a question, a situation, etc.). Simultaneously, your brain filters possible thoughts based on a set of criteria to ensure that the thought you produce makes sense. For example, if you were asked to name your favourite food, your mind will select an answer that fits certain criteria: your favourite food must be edible and you must enjoy it. Grilled cheese is an acceptable answer. A bicycle is an unacceptable answer.

The secondary level of thought, or the *Skills* level, is more sophisticated than the *Thought Mechanics* level. *Skills* are typically dominated by creative or critical thought, and as a result become divergent or convergent in nature.

For example, brainstorming requires more creative thought than critical thought and may be considered divergent. Alternatively, proofreading requires more critical thought than creative thought and may be considered convergent.

In convergent thinking skills, critical thought dominates creative thought. These skills are used to evaluate some object (physical or abstract) by a set of standards. Convergent skills can be used to find positive and negative points, depending on the attitude of the thinker.

Most convergent skills do not produce a decision directly; instead they provide objective information so that a well-informed decision can be made. Decision-making is a type of convergent thinking skill because one idea is selected for further pursuit. Decision-making is different than other convergent skills because it simultaneously concludes the thinking that has occurred while beginning the next thinking activity by forcing the thinker to ask the question "How do we react to this conclusion?"

The tertiary level of thought, or the *Superskills* level, is more sophisticated than the *Skills* level. *Superskills* are strategic collections of skills that, when considered all together, approach an equal balance between critical and creative thinking.

For example, consider problem solving. After using divergent thinking skills to generate several potential solutions, convergent thinking skills are used to evaluate the benefits and pitfalls of each potential solution. Then a decision is made; one solution is selected as the best solution to the problem.

Three criteria used to guide MITS' development:

1. Objectively describes CT as completely as possible
2. Enables us to distinguish CT from other skills
3. Can be interpreted in all disciplines

Models used to construct MITS:

- Barnett, R. (1997). Higher Education: a critical business. (H. Eggins, Ed.). SRHE and Open University Press.
- Johnston, B., Mitchell, R., Myles, F., & Ford, P. (2011). Developing student criticality in higher education: undergraduate learning in the arts and social sciences. Continuum International Publishing Group. (explains the Liberal Academic view)
- Paul, R. W. (1993). The Logic of Creative and Critical Thinking. American Behavioral Scientist, 37(1), 21–39. http://doi.org/10.1177/0002764293037001004
- Puccio, G., Mance, M., & Murdock, M. (2011). Creative Leadership: skills that drive change. (L. Shaw, M. Vail, E. Garner, & P. Schroeder, Eds.) (2nd ed.). Los Angeles: SAGE Publications, Inc.
- Zechmeister, E., & Johnson, J. (1992). Critical Thinking: a functional approach. (V. Knight, H. Riedl, P. Sky, B. Salazar, & M. DuBois, Eds.). Belmont, California: Brooks/Cole Publishing Company.

Think about a typical assignment you may use in one of your classes and wish to assess your students' critical thinking abilities. Where are elements of critical thinking already embedded in that assignment? Using MITS as a base, how might you fill out your rubric?

Element of Critical Thinking	Unsatisfactory 0-59	Satisfactory 60-69	Good 70-79	Excellent 80-89	Outstanding 90-100
Defining the situational context Ability to consider and respect circumstances unique to the assessment.					
Convergent thinking Ability to identify correct skills/actions to take. Ability to use disciplinary principles and skills to gather correct and objective information. Ability to make reasonable conclusions based on gathered information.					

Element of Critical Thinking	Unsatisfactory 0-59	Satisfactory 60-69	Good 70-79	Excellent 80-89	Outstanding 90-100