Teaching Critical Thought by Examining Physics and Culture

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We approach critical analysis by examining human perceptions and the impacts they have on thought, philosophy, technology, and society. We explore two seemingly different areas - physics and environmental geography - and discuss ways in which different bodies of knowledge contribute to meaning and perspectives of the world around us.

Because of its interdisciplinary nature, the course content is designed to facilitate discussion between the two subject areas. We explore how Galilean Relativity and Newtonian Mechanics radically shifted the ways scientists conduct physics, and how they changed the way Europeans thought of themselves in relation to the environment and the rest of the universe. Similarly, we investigate how Quantum Mechanics revolutionized the way we understand the physical universe, and explore how it can help reestablish connections between humankind and nature as advocated by environmentalists like David Suzuki.

We develop quantitative skills such as algebra, trigonometry, and simple geometry in class discussions and workshop activities, and also write critical essays on course topics. Students with a broad spectrum of talents are able to critically develop ideas about how they relate to spaces with personal meaning.