

Paper #1 Assignment. Due Tues March 24.

Instructions:

- (a) Choose one of the following topics and respond to it in an essay of no less than 5 pages (not including title page and bibliography) and no more than 7 pages. Your essay should be typed, 10- or 12-point, double-spaced and spell-checked. Please submit a hardcopy of your paper in class on the due date, as well as an e-copy to Turnitin.
- (b) Your essay should conform to the guidelines for writing philosophy essays handed out in class. ***Make Absolutely Certain that you have read and understood these guidelines before you attempt to begin writing your essay.*** If you do not follow these guidelines, the grade for your essay will suffer!
- (c) Your essay must include a bibliography that minimally includes the relevant course texts. Your essay must use this bibliography as a source to cite for all claims and quotes you attribute to authors. If you do not include a bibliography that you cite for claims and quotes, the grade for your essay will suffer!
- (d) Please make use of Tandon's Writing Center if you have trouble with spelling and/or grammar. If your essay contains so many spelling/grammatical errors that a reader cannot comprehend what your claims are, then your grade will suffer as a result. Information about Tandon's Writing Center can be found at <<https://engineering.nyu.edu/academics/support-services/undergraduate-services/polytechnic-tutoring-center/writing-center>>.

1. Why did Maxwell think the 2nd Law of thermodynamics was statistical in nature? Is his argument convincing?
2. In your opinion, does Boltzmann's approach to statistical mechanics explain the 2nd Law of thermodynamics? Why or why not?
3. Can statistical mechanics be given an information-theoretic foundation? Can thermodynamics be given an information-theoretic foundation? Why or why not?