

Topics for Paper #2. Due Monday May 7.

Instructions:

- (a) Choose one of the following topics and respond to it in an essay of no less than 5 pages 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 Poly'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 Poly's Writing Center can be found at <http://www.poly.edu/academics/support/polytechnic/writing>.

1. Energy and entropy are fundamental concepts in contemporary thermodynamics. To what extent are they products of the culture (religious, political, economic, *etc.*) of late 19th century North Britain?
2. What was Boltzmann's purpose in presenting his *H*-Theorem? Did he succeed?
3. What was Maxwell's purpose in presenting his demon thought-experiment? Do information-theoretic attempts to "save" thermodynamics from Maxwell's demon succeed?
4. According to Brush, the significance of the wave theory of heat to the development of thermodynamics has been obscured by two myths. Discuss these myths and assess Brush's claim that Thomson is responsible for them.