

Physics 206 – Spring 2019 Formal Research Paper

As part of the Writing flag, you must write a formal research paper that is a minimum of 6 pages in length, double-spaced (approximately 1500 words). The paper must be related to the material covered in class. You must cite references in the format required for labs (minimum of six). The paper is due in class on April 15th, 2019. Late papers will not be accepted for credit. I must approve your topic before you begin researching it.

Although you may select your own topic, you may also choose one from the following list:

- Tests of special relativity (time dilation and length contraction)
- The LHC and particle collisions
- The Higgs boson discovery
- LIGO and gravitational waves
- The Event Horizon Telescope
- Hawking radiation and black hole thermodynamics
- Black hole chemistry
- The Alcubierre warp drive
- Quantum computers and computation
- Quantum teleportation
- Quantum cryptography
- Quantum tunneling speed
- Perpetual motion machines and the laws of thermodynamics
- The Standard Model of Particle Physics