LU-PRISM 2019 Information Sheet

LU-PRISM (***L****ongwood* ***U****niversity* ***P****erspectives on* ***R****esearch* ***I****n* ***S****cience &* ***M****athematics*)

LU-PRISM is an undergraduate summer research program where you can work one-on-one with a Longwood faculty member and conduct transformative, cutting edge research.

Applications are due to Dr. Amorette Barber by November 5th, 2018 at 5pm (barberar@longwood.edu)

Program details:

- Duration: 8 weeks (May 20 – July 12)
- Student stipend: $3,500
- Housing stipend: $1,500
- Meal stipend loaded on Lancer Card: $400
- Students must be continuing Longwood undergraduates (not graduate in May 2019)

While participating in the LU-PRISM program, students MUST:

- Enroll in a one-credit research course in the coming spring (Spring 2019) with their PRISM research mentor serving as the instructor. This will fulfill Goal 14 of the Gen Ed requirements.
- Give a short (10 minute) oral presentation outlining their project and goals for the summer during the university-wide Research Day (Spring Symposium for Research and Creative Inquiry) on April 23, 2019.
- Present their research at the PRISM poster session in July 2019.
- Summarize their research in a final manuscript written in a style consistent with their discipline.
- Participate in weekly professional development sessions during the summer
- Attend once a month workshops in the spring semester
- May not register for an in-person summer class during the PRISM program

The titles and areas of the research projects available are summarized below.

Project Title	***Faculty (Project Area)***
Exposing the Hidden Genetic Character of Non-Model Organisms	Dr. Dale Beach (Biology)
Constrained Non-negative Matrix Factorization	Dr. Julian Dymacek (Computer Science)
Evaluating Control and Mitigation Techniques for Mosquitoes in Rainwater Harvesting Systems	Dr. Kathy Gee (Integrated Environmental Science)
An Analysis of Neurogenesis in a Mouse Model of Chemotherapy Related Cognitive Impairment	Dr. Maxwell Hennings (Psychology)
Shake a tail feather: finding the function of bird tails in slow flight	Dr. Brandon Jackson (Biology)
Spectroscopic and Chemometric Analysis of Petroleum Products for Forensic, Environmental, and Industrial Applications	Dr. Sarah Porter (Chemistry)
A Randomized Double-Blind, Placebo-Controlled Crossover Study of Low-Dose Creatine on Cognitive Function Before and After Athletic Competition	Dr. Troy Purdom (Exercise Science)
Investigating the effects of bromodomain cancer mutations on the activity of p300	Dr. Erin Shanle (Biology)
Investigating the effects of cancer mutations on DNA damage response proteins in yeast	Dr. Erin Shanle (Biology)
Chemical design of single molecule electronic device	Dr. Ben Topham (Chemistry)
Synthesis of a cancer-targeting, choline-appended Pt anticancer therapeutic and characterization of its DNA target binding and cellular toxicity	Dr. Jonathan White (Chemistry)
The Geometry of Curves in Surfaces in 3-dimensional Lie Groups	Dr. Thomas Wears (Mathematics)