



Cold Spring Harbor Jr./Sr. High School Summer Research Program 2023

- Dates/Times:** Five-Week Program, Monday - Friday*
Jun 26, 2023 through Jul 28, 2023
8:00 AM - 12:00 PM
*With the exception of July 4th week
- Location:** Jr./Sr. High School, Room TBD
- Grades:** Rising 9-12
- Expectations:**
- ✓ Students should do their best to attend all dates within each session selected.
 - ✓ A student must attend 60 hours of the program in order to earn 0.5 high school transcript credit.

Session 1: June 26-30 (8AM-12PM)

Genomics and Molecular Biology

During this session, students will perform cutting edge laboratory techniques involving recombinant DNA technology, DNA sequencing and DNA editing methods.

Session 2: July 5-7 and July 10-14 (8AM-12PM) → This is an 8-day session.

Computer Science and Engineering with Drones and Hydroponics

During this session, students will explore computer engineering. Students will design a hydroponic garden which will be run by computer programming sensors. Additionally, students will use drone sensors to collect and explore various data during flight, design & print 3D drone attachments, and use code to extract, process and visualize drone data.

Session 3: July 17-21 (8AM- 12PM)

Data Exploration using Computer Statistical Analysis

During this session, students will engage in hands-on activities to learn all about analyzing data. Using data collected from the drones (see prior week) and other sources, we'll employ an easy-to-use software package (Data Classroom) to understand graphical representations of data, descriptive statistics, normal distributions, and significance tests that are used in research.

Session 4: July 24-28 (8AM- 12PM)

Exploration Into Social Science Research

During this session, students will gain an understanding of the principles and foundational skills necessary to design and conduct social science research—this type of research is used to investigate human behavior, including how people behave in society and in relationships. The social sciences include subjects such as sociology, anthropology, psychology, economics, and education. Similar to research in the natural sciences, social science research may be based on the scientific method.

If you have any questions about the program please email:

Mr. Brian Taylor (btaylor@csh.k12.ny.us)

Ms. Kerin Moser (kmoser@csh.k12.ny.us)