

Summer Research Opportunity at TJHSST

Thomas Jefferson High School for Science and Technology is excited to announce summer research opportunities in Biotechnology and Chemical Analysis for rising juniors and seniors. This **noncredit** program is designed to allow students to get an early start on senior research, science fair projects, and IB extended essay research under the guidance of TJHSST lab directors and utilizing the lab facilities of TJHSST. The opportunity is open to all FCPS students. Students from FCPS schools other than Thomas Jefferson will develop projects that can be completed at their own high school. Both courses will carry expectations for ongoing research, writing reports, and class presentations. Students will be expected to accomplish work outside of class time. Appropriate lab behavior will be required at all times.

Biotechnology Opportunity

This course is offered to students who wish to expand their interest in biotechnology through their own unique research. Students will use mammalian cell cultures (human, mouse, or rat) as the subjects of their studies and apply an experimental variable to those cells as indicated by their experimental design. Other research options will be considered for students who have a definite experimental design in mind. Instruction related to a variety of lab protocols and instruments will also be included as part of the course.

Dates for the course are as follows:

- | | |
|-----------------|---|
| July 12, 13 | meet with lab director at TJHSST to discuss and develop preliminary proposal. Time: 8:30 – 2:30 each day. |
| July 14 – 18 | students work independently on research development |
| July 19 – Aug 6 | research classes meet daily from 8:30 a.m. – 2:30 p.m. at TJHSST |

Chemical Analysis Opportunity

This course is offered to students who wish to accomplish summer research in the areas of advanced chemical analysis and environmental analysis research. The focus of summer research will include project areas related to visible spectroscopy, inorganic synthesis methods, environmental analysis and methods of water remediation, and synthesis of nanochemical sensors. Instruction related to the use and application of advanced instrumentation related to the above areas will be included.

Dates for the course are as follows:

- | | |
|------------------|---|
| June 28, 29 | meet with lab director at TJHSST to discuss and develop preliminary proposal. Times: June 28: 12 - 3; June 29: 9 – 2. |
| June 29 – July 6 | students work independently on research development with online instructor consultation available |
| July 6 – 23 | research class meets daily from 8:30 a.m. – 2:30 p.m. at TJHSST |

Application and additional information available at:

<http://www.tjhsst.edu/curriculum/summer/index.php>

Applications will be reviewed as received with admission decisions beginning in mid-April and extending through the application deadline of May 1.