



SUMMER PROGRAM 2017

The Teacher Research Academy (TRA) offers middle school, high school, and community college faculty unique professional development experiences at Lawrence Livermore National Laboratory (LLNL).

TEACHER OUTCOMES:

- Gain increased understanding of science, technology, engineering, and math aligned with NGSS requirements
- Understand science in a real world context
- Improve ability to guide student research

ACTIVITIES:

- Meet LLNL scientists
- Visit research laboratories
- Learn how to apply Common Core technical communication skills
- Use cutting edge science equipment, processes, and practices found in research laboratories

INTERSHIPS:

- Paid internships
- 8 week program, June–August
- Placement in any workshop area

Graduate course credit available—CSU East Bay
Continuing education credit available— CSU Chico

You must be a U.S. citizen to attend
\$25 fee/workshop, payment due 30 days prior

TIME: 8:30 am – 3:30 pm daily

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PROFESSIONAL DEVELOPMENT WORKSHOPS



BIOTECHNOLOGY

Emphasizes overview of the field with instruction on basic skills to include DNA and protein analysis through inquiry and experimentation.

Level I June 19 – 21

Level II June 26 – 30



COMPUTATIONAL MODELING

Introduces concepts of computer modeling and simulation using programming with NetLogo to apply towards STEM curriculum using real-world applications.

Level I July 10 – 14

Level II July 17 – 21



3D PRINT & DESIGN

Incorporates modeling, design, and three-dimensional printing for introduction to curriculum, print everyday objects from computational models using Tinkercad.

Level I June 19 – 21

Level II June 26 – 30



FUSION/ASTROPHYSICS

Focuses on properties of electromagnetic radiation, spectroscopy, gravitation, and nuclear physics using tools employed in research laboratories through hands-on activities.

Level I July 5 – 7

Level II July 10 – 14



TECHNICAL WRITING

Prepares teachers to build students' technical-writing skills toward CCSS goals to improve lab instruction, technical literacy, lab notebooks, abstracts, and science posters.

June 22 – 23



TEACHER RESEARCH INTERSHIPS

Mentored research opportunities within LLNL research laboratories. Interns receive a \$4000 stipend at completion of the 8-week internship. Applications are competitive.

June 12 – Aug 4



REGISTER ONLINE: EDUCATION.LLNL.GOV
REGISTRATION OPENS JANUARY 2017