

HIGH SCHOOL SCIENCE TEACHERS PROFESSIONAL DEVELOPMENT WORKSHOP

Teaching science using the *Engineering Method* with a focus on Bioanalytical Engineering

9 am – 4pm, March 17, 2018

Northwest Technological Center, Fairview OK

Bioanalytical Engineering designs proteins, viruses, bacteria, and cells for applications in medicine, the energy industry, agriculture and the environment. It is deeply rooted in the fundamental concepts of molecular biology, biochemistry, cellular biology, nanotechnology, microfluidics, chemistry, and physics. Coupled with *Engineering Method* pedagogy, it provides science teachers with opportunities to engage students in biology, chemistry, and physics, while impacting critical issues related to medicine, human health, agriculture, energy resources, and environmental quality.

Workshop Topics:

- How does “bioanalytical engineering” relate to rural students and communities?
- How to use *Authentic Teaching* and *Guided Inquiry* pedagogical methods to connect science with students’ communities.
- How to use the *Engineering Method* to engage students in critical thinking skills while learning science.
- Current Bioanalytical Engineering research activities and projects at OU.
- Discover the summer residential research program, “Rural Educators Engaged in Bioanalytical Engineering Research and Teaching”, at OU for rural high school science and math teachers.

Registration:

- **The workshop is free**; there is no cost to attend.
- **Earn 6 Professional Development hours or points.**
- **Lunch is provided**; please mention any dietary restrictions you may have in your registration email.
- **Email Ms. Laura Lewis** (lewis1976@ou.edu) your name, phone number, your school and the courses you teach.

This workshop is offered by the University of Oklahoma’s College of Engineering, the Center for Bioanalysis and the College of Education, and is funded by the National Science Foundation.

