

Opportunity Title: Nuclear Engineering Science Laboratory Synthesis (NESLS) -

Spring 2015

Opportunity Reference Code: NESLS-Spring2015

Organization Oak Ridge National Laboratory (ORNL)

Reference Code NESLS-Spring2015

Application Deadline 12/31/2014 11:59:00 PM Eastern Time Zone

Description NESLS Goals

- Maximize the abilities of students through cooperative research with mentors at a national laboratory
- · Increase on-the-job research opportunities
- Provide a learning environment useful to both national laboratories and students
- Train next generation nuclear scientists

Nuclear Security Technologies

Material protection, control, and accounting	Radiation detection
Safeguards	Transportation technologies
Arms control assessments	Fissile material Detection
Export control	Fissile material disposition
Nuclear threat reduction	

Nuclear Systems Analysis, Design, and Safety

Radiation shielding	Systems analysis
Reactor physics	Facility safety
Criticality safety	Risk assessment
Thermal hydraulics	Regulatory support
Nuclear data and codes	System instrumentation and controls
Material and fuel irradiation	Enrichment technology
Advanced space reactors	

Fuels, Isotopes, and Nuclear Materials

Nuclear fuels	Separations science and technology
Heavy element production	Nuclear process and equipment design
Stable and radioactive isotopes	Robotics and remote handling
Medical isotope development	Chemical engineering

While You Are Here:

- Enrich your laboratory experience by attending the lecture series to learn of the work of outstanding speakers
- Network with laboratory research staff and with fellow students through work and social events
- Take technical tours of facilities at ORNL
- Prepare and present your project to laboratory staff and fellow students

Application Procedure: A limited number of slots are available during the

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spring session. Applicants may apply for NESLS via the online application form.

Selection: The award will be based on mentor's selection and project funding availability.

Duration: The award is an appointment of at least 10 weeks. Renewals are limited.

Benefits: Travel to and from (max \$1000); Housing allowance of \$125/week if located more than 50 miles from Oak Ridge. Questions on housing can be directed to Julie Ezold (<u>ezoldjg1@ornl.gov</u>).

Health Insurance: Each participant is required to have coverage in a health insurance plan. It is the responsibility of each participant to secure insurance coverage before arriving at the appointed site.

NESLS Weekly Stipend Rates

Class Status*	Stipend
First Year (Freshman)	\$529/wk
Second Year (Sophomore)	\$593/wk
Third Year (Junior)	\$653/wk
Fourth Year (Senior)	\$726/wk
Masters Student	\$863/wk
PhD Student	\$935/wk

*Denotes class status completed prior to ORNL report date.

For additional information contact: Julie Ezold Phone: (865) 574-9594 Email: ezoldjg1@ornl.gov

Qualifications *Eligibility:* The ORNL NESLS program is open to full- or part-time students enrolled at a U.S. university with a 3.0/4.0 cumulative GPA at the time of appointment. All awards and active participation in the program are contingent upon security access approval to Oak Ridge National Laboratory.

Qualifications: Student applicants will be chosen on the basis of academic performance, class standing, career goals, recommendations, and compatibility of educational interests and abilities with the needs of ORNL.

Eligibility Requirements

- Degree: Currently pursuing a Bachelor's Degree, Master's Degree, or
- Doctoral Degree.
 - Overall GPA: 3.00



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- Academic Level(s): Graduate Students or Undergraduate Students.
- Discipline(s):
 - Chemistry and Materials Sciences (<u>12</u>)
 - Computer, Information, and Data Sciences (<u>16</u>)
 - Earth and Geosciences (21)
 - Engineering (<u>27</u> ^(©))
 - Environmental and Marine Sciences (14 (*)
 - $\circ~$ Life Health and Medical Sciences (45 (*)
 - Mathematics and Statistics (10.)
 - Physics (<u>16</u> [●])
 - Science & Engineering-related (1.)
- Affirmation I certify that my cumulative GPA is at least 3.0/4.0, that I am or will be at least 18 years of age prior to start of appointment, and that I am currently enrolled in an undergraduate or graduate nuclear engineering, science or related degree program at a U.S. university/college.