



# Research Experiences for Undergraduates

Nuclear Physics, Radiobiology, and Nuclear Engineering Summer Program  
 Idaho State University, **May 18<sup>th</sup> to July 24<sup>th</sup>, 2009\***

\*earlier or later starting dates are negotiable

## Instructions

Complete all items on this form and return to:

REU Program in Physics  
 Idaho State University  
 Mail Stop 8106  
 Pocatello, Idaho 83209  
 phone: 208 282-2350  
 fax: 208 282-4649

Your complete REU application should contain the following:

- ✓ Application form
- ✓ Essay
- ✓ Two letters of recommendation\*
- ✓ Official Transcript\*

\*may be mailed separately

Application forms and essays may be sent by e-mail to [oneill@athena.physics.isu.edu](mailto:oneill@athena.physics.isu.edu).

Application forms (online) can also be found at <http://www.physics.isu.edu/internships/reu.html>

*There is no absolute deadline for submission of applications: offers will be made on a rolling basis beginning on March 1<sup>st</sup>, 2009, until all available positions are filled.*

## Applicant Data

Last Name		First Name		Middle Initial
Email		Best phone numbers for contacting you:		
Citizenship Status: Please indicate if you are a <input type="checkbox"/> U.S.A. Citizen <input type="checkbox"/> Permanent Resident		Date of Birth		
College or University		Major(s)		
Overall GPA	Total Credits Completed as of June 2009	Expected Graduation Date		
1) Current Mailing Address (during academic year)				
City	State	Zip	Phone	
2) Permanent Mailing Address (If different from above)				
City	State	Zip	Phone	

## Research Experience

Detail any previous research experience you may have had. This information will be used to help determine your research placement.

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## Honors and Awards

List relevant honors or awards

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# ISU REU Nuclear Physics, Radiobiology, and Nuclear Engineering Summer Program Application – (continued)

**Essay**

Attach a typed essay (250-500 words) describing your research interests and your educational and professional plans. Be sure to put your name at the top of each page.

**Research Areas**

Please rank, in order, your preferences among the following research topics, with “1” signifying your first choice.

- Linearly polarized photon beam development
- Neutral pi meson lifetime analysis
- Linear accelerator techniques for nonproliferation and homeland security
- Dye sensitized solar cell development
- Neutron flux, reaction rate, and thermal property calculations for nuclear reactors
- Photofission with linearly polarized photons
- Wire chamber detector testing and development
- Enhancement of radiation resistance in microbes
- Gene expression profile studies of microbes subject to radiation and antibiotic stress
- Nuclear reactor health physics
- Photon activation analysis, XRF, and laser ablation studies of stone tools for archeology
- Trace metals uptake in bones of mammals and fish from archaeological sites
- Computational studies of the elastic properties of heme compounds

**Faculty References – Name and Contact Information**

1) Name		Institution
Phone	FAX	E-mail
2) Name		Institution
Phone	FAX	E-mail

**Additional Data – Optional**

For data collection purposes only, please complete the following.  
*Note: this information will not be used to determine participation in the program.)*

**Race/Ethnic Group**

African American     Asian     Caucasian     Latino     Native American    \_\_\_\_\_ Other (fill in)

**Sex**

Female     Male

*Idaho State University is an equal opportunity/affirmative action educator and employer.*