Research Experiences for Undergraduates
Nuclear Physics, Radiobiology, and Nuclear Engineering Summer Program
Idaho State University, May 17th to July 23rd, 2010*
*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.
Application forms (online) can also be found at http://www.physics.isu.edu/internships/reu.html

Applications due on March 1st, 2010.

Applicant Data

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<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Initial</th>
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Email

Best phone numbers for contacting you:

Citizenship Status: Please indicate if you are a

[ ] U.S.A. Citizen
[ ] 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.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Honors and Awards

List relevant honors or awards

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
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.

1. Linearly polarized photon beam development
2. Neutral pi meson lifetime analysis
3. Linear accelerator techniques for nonproliferation and homeland security
4. Dye sensitized solar cell development
5. Neutron flux, reaction rate, and thermal property calculations for nuclear reactors
6. Photofission with linearly polarized photons
7. Wire chamber detector testing and development
8. Enhancement of radiation resistance in microbes
9. Gene expression profile studies of microbes subject to radiation and antibiotic stress
10. Nuclear reactor health physics
11. Photon activation analysis, XRF, and laser ablation studies of stone tools for archeology
12. Trace metals uptake in bones of mammals and fish from archaeological sites
13. Computational studies of the elastic properties of heme compounds
14. Quantum field theory in curved spacetimes and quantum gravity

**Faculty References – Name and Contact Information**

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<th>1) Name</th>
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<td>2) Name</td>
<td>Institution</td>
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**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.*