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

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Initial</th>
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<tr>
<td>Email</td>
<td>Best phone numbers for contacting you:</td>
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<td>Citizenship Status: Please indicate if you are a</td>
<td>Date of Birth</td>
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<td>[ ] U.S.A. Citizen [ ] Permanent Resident</td>
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<td>College or University</td>
<td>Major(s)</td>
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<td>Overall GPA</td>
<td>Total Credits Completed as of June 2009</td>
<td>Expected Graduation Date</td>
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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.

- _____ 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**

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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.*