# Purdue University

**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE**

**DEPARTMENT:** Physics  
**EFFECTIVE SESSION:** Fall 2011  
**INSTRUCTIONS:** Please check the items below which describe the purpose of this request.

- [ ] 1. New course with supporting documents  
- [X] 2. Add existing course offered at another campus  
- [ ] 3. Expiration of a course  
- [ ] 4. Change in course number  
- [ ] 5. Change in course title  
- [ ] 6. Change in course credit type  
- [ ] 7. Change in course attributes (department head signature only)  
- [ ] 8. Change in instructional hours  
- [ ] 9. Change in course description  
- [ ] 10. Change in course requisites  
- [ ] 11. Change in semesters offered (department head signature only)  
- [ ] 12. Transfer from one department to another

### PROPOSED:
- **Subject Abbreviation:** PHYS  
- **Course Number:** 29500  
- **Long Title:** Outreach Assistance As Service Learning  
- **Short Title:** OASL

### EXISTING:
- **Subject Abbreviation:** PHYS  
- **Course Number:** 29500  
- **Long Title:** Outreach Assistance As Service Learning  
- **Short Title:** OASL

### TERMS OFFERED
- [X] Fall  
- [X] Spring  
- [ ] Summer

### CAMPUS(ES) INVOLVED
- Calumet  
- Ft. Wayne  
- Indianapolis  
- N. Control  
- Tech Statewide  
- W. Lafayette

### CREDIT TYPE
1. Fixed Credit: Cr. Hrs.  
2. Variable Credit Range: Minimum Cr. Hrs. (Check One)  
   - [X] To  
3. Equivalent Credit: Yes  

### COURSE ATTRIBUTES
1. Pass/Not Pass Only  
2. Satisfactory/Unsatisfactory Only  
3. Repeatable  
4. Credit by Examination  
5. Special Fees  
6. Registration Approval Type  
7. Variables Title  
8. Honors  
9. Full Time Privilege  
10. Off Campus Experience

### Schedule Type
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Practic/Observe

### Schedule Type Details

#### Minutes Per Mtg  
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Practic/Observe

#### Meetings Per Week
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Practic/Observe

#### Weeks Offered  
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Practic/Observe

#### % of Credit Allocated
- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Practic/Observe

### COURSE DESCRIPTION
Physics 295 is a service learning class available to students willing and able to deliver physics lessons to K-12 classrooms and to other public events. Students are required to prepare and rehearse lab activities so they are able to offer professional presentations. Students are also required to maintain a reflection journal, where they record notes about their experiences. Although efforts are made to work around students' schedules, students should have at least one open morning or afternoon each week (preferably 2-3) that allows them to visit an assigned site on a regular, consistent basis. One credit is equivalent to 32 hours of involvement in preparation and delivery of activities and instruction time. Responsibilities include commitment, dependability, responsibility.

### COURSE LEARNING OUTCOMES:
Students will learn about developing lessons and other public outreach activities which in turn will affect their own understanding of physics.

### SIGNATURES
- **Calumet Department Head:**  
  - Date: 11/3/11
- **Ft. Wayne Department Head:**  
  - Date: 11/1/11
- **Indianapolis Department Head:**  
  - Date:  
- **North Central Faculty Senate Chair:**  
  - Date:  
- **West Lafayette Department Head:**  
  - Date:  
- **Office of the Registrar:**  
  - Date:  

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*OFFICE OF THE REGISTRAR*
The purpose of this course is to guide students in development and implementation of community outreach activities. The students will gain valuable exposure to a side of physics not typically covered in the standard curriculum; the presentation of “what is physics”, “why do we do physics”, and “physics may actually be something you would enjoy” to younger (and other aged) members of our local community.

The goals of this course are: 1) to provide a valuable service to the community, 2) a chance for the students to gain a deeper understanding of topics in physics through development and delivery of presentations and demonstrations, and 3) for the students to make develop ties between them selves (and the department) with members of the community. Young minds are curious and you will have a chance to influence them and get them engaged in learning (physics . . .).

**Goals of the course:**

- To develop and deliver lessons in physics to be presented to the community.
  - The audience may range from K-12 classrooms, community centers or local educational facilities (e.g. Science Central)
  - These will be developed working in class and improved through cooperative learning in class along with sample presentations to your peers.
- To improve your understanding of concepts in physics and in turn the understanding of others.
  - You learn by doing. Developing these lessons and handling questions from your peers will improve your understanding of the material you present.
- To gain experience and confidence in presentations of your work.
- Engage the community in physics.
  - Presentations will show the relevance of physics in our every day lives.
  - Create a mentally and physically interactive learning experience to engage the students in learning and understanding.
- To give students a feeling of pride in their learning.

**Prerequisites:**
You must come to this course with a desire to share physics with the world. The presentations will be a representation of you as well as your department and you must come with a sense of pride and willingness to be an exemplary envoy of physics to your community.

**In class learning and activities:**
Students enrolled will work independently and collaboratively, with the assistance of their instructor, to develop and deliver physics lessons, demonstrations and other community outreach activities. Along with guidance from their instructor, students will be expected to cultivate their own original ideas into their activities. You will be expected to work on your own projects as well as aid your classmates (teamwork!). All activities developed for delivery to the community will be presented to your classmates in an in class test run before making their way out of the classrooms and into the community.
Assessment:
There will be no formal exams in this course. There will be weekly assignments including readings, development of activities and research on presentation topics. In class participation (and thus attendance) will be an important factor in grading. Involvement in in class discussions related to topics such as: general topics in physics, presentation methods and new ideas for community involvement. You are required to share your ideas, and comment (constructively) on the ideas of your classmates. The in class test runs of your developed activities will be critiqued by your instructor (impact on your grade) and your peers (impact on your participation grade). Students will also be required to keep a journal documenting what they have learned, resources and references of material used in presentations and a written account of their experience in the delivery of materials to the community.

Text:
There are no requirements for text in this course. Any material needed will be provided or located by student research into related topics.

Grades:
Students will create at least one completely documented lesson in physics that will be compiled with the others creating a collaborative resource that could be used by members of the community to continue your work after the course has ended.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active participation in class and external visits to deliver content to the community.</td>
<td>50%</td>
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<tr>
<td>Journal</td>
<td>15%</td>
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<tr>
<td>In class readings and worksheets or other in class learning activities.</td>
<td>15%</td>
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<tr>
<td>Development and critique of activities (individual and group)</td>
<td>20%</td>
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