

**2009 Course Outline**  
**The IUPUI Discovering the Science of the Environment**  
**Professional Development Institute and Curriculum**

**Course Listings:**

G690 - Topics in Restoration Science Education, #9556  
W505 - Professional Development Workshop,  
Discovering the Science of the Environment, #8028

**Course Dates:**

June 22 – 26, 2009

**Instructors:**

Dr. Lenore P. Tedesco, [ltedesco@iupui.edu](mailto:ltedesco@iupui.edu)  
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**Course Activities and Requirements:**

40% Attend and participate in all class activities and contribute to discussions  
20% Keep a Reflective Journal  
20% Complete Team Action Plan  
20% Complete Curriculum Plan

**Grading Policy and Categories:**

*G690 - Topics in Restoration Science Education, #9556*

A letter grade will be given based on the course assignments and participation. Assignments are due on the date indicated. Your active participation is a crucial aspect of this course. Please notify course contacts in case of an emergency that will require your completed assignments to be late.

100-90, A  
89-80, B  
79-70, C  
69-60, D  
59 or Below, F

*W505 - Professional Development Workshop,  
Discovering the Science of the Environment, #8028*

Pass / Fail

**Course Assignments:**

**Reflective Journal:**

While attending the DSE Summer Institute, use your journal as a tool to reflect on your observations and experiences. The purpose of this journaling activity is to enhance your understanding of course topics as well as to provide evidence of what you have learned in the course. Take at least five minutes each day to describe how the concepts you are learning here will be brought back to your professional work and/or into your classroom and work with your colleagues. Your entries may also pose questions, reflect on readings and class events, offer speculations, and suggest ways this experience may affect how you teach and learn. Your journal will be turned in at the completion of the institute but will be mailed back to you.

**Team Action Plan:**

During the Summer Institute, your colleagues and you will develop a strategic plan for implementing the DSE program and related curriculum in your schools. You will be provided with forms to complete collaboratively with your team. At the conclusion of the institute, please turn in either photocopies of the forms or a typed summary, which will include mission statement, goals, objectives, action steps, and any other information about how you will integrate this program into your school. The action plan should include at least one specific next step that individual team members will take to support their school's restoration project or use of existing natural areas and habitats and work to meet the goals of the project. The action plan is completed during the summer institute and handed in on the last day of the course (June 26, 2009). Note: Additional steps to help you with your action plan may include identifying resources and other assets in your community that can support and enhance school restoration projects. Look at the goals of your team's initiative and take an inventory of the community resources that can strengthen the restoration program. You can use Internet sites or other resources such as community yellow pages of the phone book to find resources such as local businesses, parks, retirement centers, landscape architects, etc. Be as specific as possible (names, phone numbers, and potential roles) and discuss how each of the human resources identified can help the project. How will you go about involving them in your school's plan?

**Curriculum Plan:**

Select a unit from your school curriculum you would like to modify to incorporate ideas and activities you are experiencing during the Summer Institute. Choose one curricular activity per person and combine them to turn in as a team with your action plan. The Integration Plan Worksheet will help with this process. Please include the following information:

- Lesson/Unit/Subject Area to be enhanced by the activity
- Concepts and skills associated with the activity (data collection, and synthesis, graphing, etc)
- Assessment of student learning
- When the activity will be used and additional resources needed

**Recommended Reading Assignments:**

All readings listed below are located in your binder.

**June 22**

Chesky, E. (2001). How schoolyards influence behavior. In T. Grant and G. Littlejohn (Eds.), *Greening School Grounds: Creating Habitats for Learning* (pp. 5-7), Toronto, Green Teacher. – Section 9 in Binder

Davis, J. B. (2004). Nature and nurture. *Native Plants*, 21(1), 25-28. – Section 9 in Binder

Rivkin, M. (1997). The schoolyard habitat movement: What it is and why children need it. *Early Childhood Education Journal*, 25(1), 61-66. – Section 9 in Binder

**June 23**

Cox-Petersen, A. & Spencer, B. (2006). Access to science and literacy through inquiry and school yard habitats. *Science Activities*, 43(2), 21-27. – Section 8 in Binder

Multiple Intelligences Readings – Section 8 in Binder

**June 24**

Barr, R.C., Hall, B.E., Wilson, J.S., Souch, C., Lindsey, G., Bacone, J.A., Campbell, R.K., and Tedesco, L.P., (2002). Documenting changes in the natural environment of Indianapolis-Marion County between the time of European settlement (ca. 1820) and the present: *Ecological Restoration*, v. 20, p. 37-46. – Section 4 in Binder

Tedesco, L.P., Hernly, F.V., Hall, B.E., Salazar, K.A., Lindsey, G., and Minger, T. (2004). The Lilly ARBOR Project: An Experiment in Urban Riparian Restoration (Indiana). *Ecological Restoration*, v. 22, no. 4, p. 294-295. – Section 4 in Binder

Water Resources Overviews – Section 3 in Binder

**June 25**

Sanfeliz, M. & Stalzer, M. (2003). Science motivation in the multicultural classroom. *The Science Teacher*, 70, 64-66. – Section 10 in Binder

Franklin, J. (2004). Planting the seeds of knowledge. *Curriculum Update*. – Section 10 in Binder

Note: Please let us know if you need or want any special accommodations in the curriculum, instruction, or assessments of this course to enable you to fully participate. We will work to maintain the confidentiality of the information you share.