

## **ELP 510: Theory-to-Practice in School Gardens**

Leadership for Sustainability Education (LSE)

Educational Leadership & Policy

Graduate School of Education

Portland State University

Summer 2012

CRNs: 82785, 82786, 82957

Monday-Thursday, June 18-28, 9:00-1:00

Location(s): Lane, Lent, Kelly, or Woodmere Schools

### **Professors' Contact Information:**

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### **Course Description:**

Educators from various contexts and in various stages of professional development (in-service teachers, pre-service teachers, extended-day/SUN school teachers, informal science educators, etc.) will join forces to put research-based science education into practice. Each day, educators will work with K-8 students at one of four partnering SUN schools in outer SE Portland (Lane, Kelly, Lent, or Woodmere), collaboratively enacting a co-designed STEM program at the school's garden. The garden-based STEM program will provide teachers and community-based educators with the opportunity to implement a standards and place-based curriculum that incorporates the effective use of formative assessments, and hands-on, inquiry-based activities with elementary students, all in the fun and engaging context of a summer garden camp. Utilizing the garden as a context for teaching and learning, this summer program will provide the foundation for aligning learning and enrichment activities across the regular school day and the extended-SUN school program.

The purpose of this course is for teachers and graduate students to:

- Build professional learning communities among the entire group, spanning various schools and locations, that support the development of knowledge, skills, and dispositions necessary for reflective practice and action research (GSE 1.1, 2.2, 3.1, 3.3);
- Develop an understanding of theoretical frameworks for Science, Technology, Engineering, and Math (STEM) and Garden-based education (GBE) (GSE 2.1, 2.2, 3.1, 3.2, 3.3);

- Apply STEM education research and GBE theory into practice, through the context of school and community-based learning gardens (GSE 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3).

**Graduate School of Education Vision Statement & Goals:**

<b>Vision - Preparing professionals to meet our diverse communities' lifelong educational needs</b>			
			
<p><b>Diversity and inclusiveness</b> Candidates work effectively with diverse populations (1.1) Candidates promote inclusive and therapeutic environments (1.2)</p>	<p><b>Research-based practices and professional standards</b> Candidates critically analyze and implement research-based practices (2.1) Candidates demonstrate appropriate professional knowledge, skills, and dispositions (2.2)</p>	<p><b>Impact on learning and development</b> Candidates ensure that all learners and clients succeed (3.1) Candidates use technology to enhance learning and development (3.2) Candidates influence policy and provide leadership for organizations (3.3)</p>	<p><b>Evidence-informed decision making</b> Candidates use evidence to address problems of practice and make informed educational and therapeutic decisions (4.1)</p>

**Course Objectives:**

Upon successful completion of this course you will:

1. Build professional relationships as co-learners and co-teachers with colleagues from various locations(GSE 1.1, 2.2, 3.3);
2. Gain experience and confidence working with diverse, “at-risk” students in a garden-based (out-of-school) setting (GSE 1.1, 1.2, 2.1, 2.2, 3.1);
3. Develop proficiency utilizing gardens as a context for standards-based instruction (GSE 1.2, 2.1, 2.2, 3.1, 3.3);
4. Develop proficiency utilizing formative assessment strategies to identify students’ current understandings and to guide instruction (GSE 1.1, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1).

**Instructional/Learning Needs:**

Students meeting an accommodation pursuant to federal, state or institutional education regulations should notify me. Also please contact the Disability Resource Center 503.725.5664 (503.725.4150, TTY or Relay 503.725.4178) to document your disability. That office will provide appropriate support and services.

**D2L:**

This course is supported by the online forum, D2L. As a PSU student, you have access to all of the library’s resources (see below). Most of the readings assigned for this course can be accessed through the library and direct links have been included in D2L. To access the syllabus and other documents online go to: <http://psuonline.pdx.edu/> Click “D2L Login.”

**Campus Assistance for Writing:**

The PSU Writing Center provides assistance at no cost to undergraduate and graduate students <http://www.writingcenter.pdx.edu/>.

### **Library Resources:**

You can access library databases and other resources at: <http://library.pdx.edu>

An excellent online tutorial on conducting library research is available at <http://library.pdx.edu/tutorials/beginresearch/1> and can be accessed from the course homepage on D2L.

### **Course Expectations:**

- **Environment of Respect:** Disagreement and diversity of opinions are encouraged. You will be challenged to think critically about the impact of cultural differences, which may include gender, race, socioeconomic status, physical and cognitive ability, sexuality and other forms of diversity. You are encouraged to ask difficult questions and share comments. Please be respectful of others as we listen to and try to understand differences.
- **Cooperative Learning:** In this course, learning is a collective process in which we have the opportunity to help each other generate meaning throughout the term. As collaborators in this learning process, participation is welcome and encouraged. The richness of this class will depend on the comments, questions, insights, and active participation that you bring to class.
- **Personal Responsibility:** You are expected to engage fully in this class and take action if you need help. Please communicate any concerns about assignments, deadlines, or classroom activities.
- **Academic Integrity:** Please adhere to university policies. Please take special note of policies regarding plagiarism and course withdrawal. The University's Code of Student Conduct may be found at <http://www.pdx.edu/dos/codeofconduct>.

### **Required Readings:**

Williams, D. R., & Brown, J. D. (2012). *Learning gardens and sustainability education: Bringing life to schools and schools to life*. New York: Routledge.

Other book chapters, articles, and websites as assigned: ***see daily schedule—links to articles are included on syllabus and in D2L.***

### **Assignments:**

***Attendance and Participation 20% of total grade***

***Course Objectives 1, 2, 3, 4***

These two weeks will be spent working with the educational team at your site, and getting to know the students enrolled in the summer garden camp. These kids will be looking to you as caring, adult mentors, so your consistency and involvement is crucial. Daily attendance and participation is required. Please be at your site by 9:00 each day, ready to interact with students and fellow educators in a variety of whole-group and small team activities. Your shared learning experience will greatly depend on everyone's active involvement in this course.

***Reflective Writing #1: 100 points—20% of total grade***

***Due Friday, June 22 by 5:00 p.m.***

### ***Course Objectives 1, 2, 3, 4***

Reflect on your experiences from this first week. In a 2-3 page, single-spaced reflection paper, please address the following questions:

- What have you learned about teaching and learning in a garden-based context?
- How has working with a team of educators shaped your experience?
- What ideas have you had about integrating STEM (science, technology, engineering, and math) topics into your teaching?
- How has your comfort and/or confidence teaching STEM concepts changed?
- Although classroom teaching rarely provides an opportunity for such low adult:student ratios, what insights have you gained from this experience? About young people? About learning? About your own ideas about teaching?
- What do you hope we will accomplish next week and/or what modifications would you suggest?

### ***Reflective Writing #2: 100 points—20% of total grade***

***Due Monday, July 2 by 5:00 p.m. OR no later than August 17 (\*\*See Late Paper Policy)***

### ***Course Objectives 1, 2, 3, 4***

Reflect on your experiences from this two-week program. In a 3-4 page, single-spaced reflection paper, please address the following questions:

- What have you learned about teaching and learning in a garden-based context?
- How has working with a team of educators shaped your experience?
- What ideas have you had about integrating STEM (science, technology, engineering, and math) topics into your teaching?
- How has your comfort and/or confidence teaching STEM topics changed?
- How do you envision this experience influencing your teaching practice?
- What suggestions do you have for this course in the future?

### ***Small <sup>[SSK1]</sup> group, mini action research project: 100 points—40% of total grade***

***Due Monday, July 2 at 5:00 p.m. OR no later than August 17 (\*\*See Late Paper Policy)***

### ***Course Goals 1, 2, 3, 4***

Working with your colleagues at your summer garden camp site, you will identify a question relating to garden-based education, collect data, and make recommendations for the partnering school and SUN program for the upcoming school year.

Guidelines:

- By the end of class on Tuesday, June 19, you and your colleagues at your SUN School site should identify a question or topic to investigate and how you will gather data. Examples might include:
  - How can we identify students' interests and incorporate those interests in a meaningful way? Data: Student interviews or questionnaires.
  - What learning experiences are most engaging for our students? Data: Field notes/observations.
  - How can artistic processes be incorporated to enhance student learning? Data: Scoring guide for student work.
  - How can time in the garden enrich school-day learning experiences? Data: Analysis of standards addressed through particular activities.

- Or...? Be creative. What do you want to investigate?? What data can your reasonably gather in about a week?
- Gather your data/information from Wednesday, June 20 through Wednesday, June 27.
- As a group, analyze/make sense of your data. How has it helped you answer or gain understanding about your question? You will have the hour of debriefing time on June 27 to discuss your group project.
- Submit a report with appropriate recommendations (to the SUN Site Manager, principal, fellow teachers, etc.) by Monday, July 2 at 5:00 p.m.

**Scoring guidelines for group action research project:**

Group identifies a problem or question to investigate as part of the summer garden program.	15 points
Data collection methods are appropriate/reasonable to address the question or problem.	15 points
Data collection is thorough and consistent (e.g. observations made daily; interviews done with all students, etc.).	20 points
Data analysis is logical and is organized to shed light on problem or question.	20 points
Report summarizes research process and includes findings (supported by evidence) and recommendations.	20 points
Group dynamics are collaborative and professional. Work load is shared appropriately.	10 points

**Grading Scale:**

- A 90-100      Excellent (A- 90-92; A 93-100)
- B 80-89      Satisfactory (B- 80-82; B 83-86; B+ 87-89)
- C 70-79      Below graduate standard
- D 60-69      Failure

**\*\*Late Paper Policy;**[SSK2]

Papers are due on the date given in the syllabus or amended by the instructor. Since this is an intensive, two-week summer course, you (and your group members when appropriate) may decide to submit assignment by the final date of the regular PSU summer term (August 17). Late papers will be **accepted only with prior approval**. Late papers (including papers that are e-mailed after class) without prior approval will incur a 10% penalty. Students anticipating problems with due dates should contact the instructors in advance to arrange an extension and avoid a penalty. In order to receive credit for this course, all work **MUST** be submitted by August 17, otherwise, you will be required to reimburse your district for the cost of the course and not receive the graduate credits.

**General Information:**

This course involves direct involvement in a summer youth garden program at one of four SE Portland SUN Schools—Kelly, Lent, Woodmere, or Lane. The table below provides some information about each site, including the SUN Site Manger, targeted grade levels for the youth program, and lead educator for the summer garden program. Prior to the first class, you will be assigned to one of the four schools and will receive a list of your colleagues and their contact information. Additionally, you will receive a packet of materials that includes the curriculum overview and daily activity schedule with the youth.

School <sup>[SSK3]</sup>	Targeted Grades & Lead	Lead Educator
<b>Kelly (K-5)</b> <b>Principal:</b> Sharon Allen <b>SUN Site Manager:</b> Christine Rhoney  Emerging Russian Dual-Immersion in Kindergarten this year	4 <sup>th</sup> & 5 <sup>th</sup> grades	Leslie Heimer from PSU-LSE Program
<b>Lent (K-8)</b> <b>Principal:</b> John Horn <b>SUN Site Manager:</b> Carmen Flores  Emerging Spanish Dual-Immersion up to K-3 this year	K-2 <sup>nd</sup> and 3 <sup>rd</sup> -5 <sup>th</sup> grades	Jess from Growing Gardens
<b>Woodmere (K-5)</b> <b>Principal:</b> Heather Hull <b>SUN Site Manager:</b> Coi Vu	3 <sup>rd</sup> -5 <sup>th</sup> grades	Christine Moore— Extended-Day teacher
<b>Lane Middle School (6<sup>th</sup>-8<sup>th</sup>)</b> <b>Principal:</b> Pam Joyner <b>SUN Site Manager:</b> Josh Wells	6 <sup>th</sup> -8 <sup>th</sup> grades	Michelle Sager from PSU-LSE Program

**Class Schedule:**

- Daily schedule (Monday – Thursday, June 18-21 and 25-28):
  - 8:30—Staff/graduate student arrives
  - 9:00—Teachers/course participants arrive—check-in/orientation; review of daily plans
  - 9:30-11:30—programming with kids—detailed curriculum under-development, but generally, there will be a mix of whole groups activities and interaction, and small groups (1:1-1:4) exploring and learning in the garden
  - 11:30-12:30—Kids leave (go to lunch on site in most cases); teachers debrief—share observations and ideas; what was most striking/interesting/confusing/surprising...? What are the take-away lessons?
  - 12:30-1:00—Lunch and travel to LGL—time for personal reflection and refueling

Date- Focus of Class Session	Themes/topics for youth program	Reflections on Teaching & Learning <sup>[SSK4]</sup>	Readings & Assignments DUE
Day 1—June 18 Introductions & Overview of Program	•	<ul style="list-style-type: none"> <li>• What did you notice today?</li> <li>• What struck you as most important, interesting, or surprising?</li> <li>• What STEM</li> </ul>	•

		<p>learning did you observe?</p> <ul style="list-style-type: none"> <li>• What questions or concerns emerged?</li> </ul>	
Day 2—June 19	•	•	•
Day 3—June 20	•	•	•
Day 4—June 21	•	•	•
Friday, June 22	•		<b>Reflective Writing #1 DUE—Post to D2L by 5:00 p.m.</b>
Day 5—June 25	•	•	•
Day 6—June 26	•	•	•
Day 7—June 27	•	•	•
Day 8—June 28	•	•	•
Monday, July 2 OR Friday, August 17	•		<b>Reflective Writing #2 DUE Group Action Research Report DUE</b>