

## **Living, Learning Laboratory Resources:**

Tedx talk on sustainability and higher education from Dr. John Robinson from the University of British Columbia: <http://www.youtube.com/watch?v=VbGYHX9hskQ>

Adomßent, M., Barth, M., Fischer, D., Richter, S, and Rieckmann M. (2013). Learning to change universities from within: a service-learning perspective on promoting sustainable consumption in higher education. [Journal of Cleaner Production](#), DOI:10.1016/j.jclepro.2013.04.006

Bacon, C. M., Mulvaney, D., Ball, T. B., DuPuis, E. M., Gliessman, S. R., Lipschutz, R. D., & Shakouri, A. (2011). The creation of an integrated sustainability curriculum and student praxis projects. *International Journal of Sustainability in Higher Education*, 12(2), 193–208. doi:10.1108/14676371111118237

Barlett, P.F. and Chase, G.W. (2004), *Sustainability on Campus: Stories and Strategies for Change*, MIT Press, Cambridge, MA.

Brundiars, K., Wiek, A., & Redman, C. L. (2010). Real-world learning opportunities in sustainability: from classroom into the real world. *International Journal of Sustainability in Higher Education*, 11(4), 308–324. doi:10.1108/14676371011077540

Brundiars, K., & Wiek, A. (2011). Educating Students in Real-world Sustainability Research: Vision and Implementation. *Innovative Higher Education*, 36(2), 107–124. doi:10.1007/s10755-010-9161-9

Brundiars, K.; Wiek, A. Do We Teach What We Preach? An International Comparison of Problem- and Project-Based Learning Courses in Sustainability. *Sustainability* 2013, 5, 1725-1746.

Mcmillin, J., & Dyball, R. (2009). Developing a Whole-of-University Approach to Educating for Sustainability: Linking Curriculum, Research and Sustainable Campus Operations. *Journal of Education for Sustainable Development*, 3(1), 55–64. doi:10.1177/097340820900300113

Sterling, S, Maxey, L and Luna, H (2013) *The Sustainable University – progress and prospects*, Abingdon: Routledge.  
<http://www.routledge.com/books/details/9780415627740/#description>

Sterling, S (2012) *The Future Fit Framework: an introductory guide to teaching and learning for sustainability in HE'*  
[http://www.heacademy.ac.uk/assets/documents/esd/The\\_Future\\_Fit\\_Framework.pdf](http://www.heacademy.ac.uk/assets/documents/esd/The_Future_Fit_Framework.pdf)

*AASHE: Campus Sustainability Living Learning Laboratory Workshop June 7-9 @ Portland State University, Portland, OR*

Fletcher Beaudoin, Institute for Sustainable Solutions, Portland State University & Katja Brundiars, School of Sustainability, Arizona State University

## **2. Design Criteria for Living, Learning Laboratory Projects at Portland State University**

### **How we define a 'living learning laboratory' at PSU?**

A living learning laboratory is a given place where problem-based teaching, research, and applied work combine to develop actionable solutions that make that place more sustainable. For PSU's campus living lab, this requires a joint commitment from students, faculty, staff, and local residents to design, implement, adapt, and teach new approaches that address issues of equity, economy, and ecology.

### **How do we define sustainability at PSU?**

Sustainability is a concept that considers the interaction of humans, both with each other and with the natural environment, and is guided by the objective of improving the long-term health of social, economic, and environmental systems.

### **Living learning lab projects strive to meet these criteria:**

- **Sustainability:** Aligns with PSU's vision for sustainability to implement lasting change to make a given place more resource-efficient, equitable, and ecologically balanced, while acknowledging a resource-finite world.
- **Fit:** Advances campus and neighborhood priorities.
- **Place:** Reflects an awareness of history and context within the campus and surrounding area.
- **Scale:** Project outcomes are designed in a manner that would be useful and applicable to other contexts and locations.
- **Collaborative action:** Fosters deep engagement with on-campus and off-campus partners, focusing on establishing an environment of co-learning.
- **Monitoring, evaluation, and continuous improvement:** Mechanisms are established to monitor progress and evaluate impact overtime.
- **Educational design:** The project is designed with clear learning outcomes for students in mind.

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## **Resources mentioned on the fieldtrips**

### **ASU, Arizona State University**

ASU campus metabolism: <http://cm.asu.edu/#>

ASU Sustainability Initiatives Revolving Fund: <https://cfo.asu.edu/sirf>

ASU SustainabilityConnect: <https://sustainabilityconnect.asu.edu/>

### **PSU, Portland State University**

PSU Solutions Generator: <http://www.pdx.edu/sustainability/solutions-generator>

PSU Shattuck Hall Ecological Learning Plaza: <http://www.pdx.edu/eco-learning-plaza/>

PSU Community Environmental Services: <http://www.pdx.edu/ces/home>

### **UBC, University of British Columbia,**

Talk from John Robinson, Associate Provost, Sustainability | UBC Sustainability Initiative: <http://www.youtube.com/watch?v=VbGYHX9hskQ>

UBC Sustainability Initiative (USI): [www.sustain.ubc.ca](http://www.sustain.ubc.ca)

Centre for Interactive research on Sustainability (CIRS): [www.cirs.ubc.ca](http://www.cirs.ubc.ca)

SEEDS Program – SEEDS Library: <http://www.sustain.ubc.ca/courses-teaching/seeds/seeds-library>

### **UCSC: University of California, Santa Cruz**

The laboratories, student assessment metrics, and content developed in the paper presented by Bacon et al., 2011 are disseminated online and available at: <http://seed.soe.ucsc.edu>. This includes course frameworks and lecture content, labs that seek to enrich socio-technical literacy, and guides for project development.