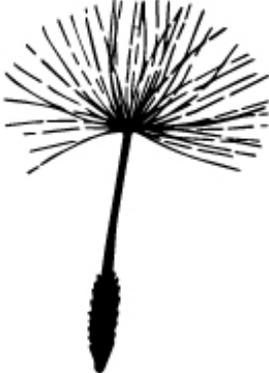


Permaculture **FEAST**



**NURTURING THE COMMUNITY THROUGH ITS
LAND**

Designed by: Cynthia M. Espinosa Marrero
Permaculture FEAST Interdisciplinary Course
Revised: Sept. 17, 2014
Holyoke, Massachusetts

Table of Contents

I. What is Permaculture?	3
II. Permaculture FEAST description	4-5
III. Client Site	5
IV. Abstract of Lesson	5
V. Goal of Lesson	6
VI. Essential Questions	6
VII. Student Learning Objectives	6-7
VIII. Grading	7
IX. Lesson Overview	8
X. Readings	9
XI. List of Materials and Equipment	9
XII. Lesson Plan	9-14
XIII. Bibliography	15-16
XIV. Appendix	17-18

What is Permaculture?

Permaculture is a creative design process which teaches how the ecology patterns and relationships flow in nature and how these processes can accomplish human needs. Some examples of permaculture design include agriculture, ecological buildings, appropriate technology such as solar, wind and water power, education and even economics.¹

Permaculture Ethics and Principles

Permaculture Design follows three ethics: Earth Care, People Care and Fair Share. These are the core ethics for each permaculture designer to follow before, during and after their ideas are in place. The permaculture principles are twelve statements in which permaculture designers follow to find out about their client. Here is the list of the permaculture principles:

Permaculture Principles (Telford, n.d.)

- | | |
|---|--|
| 1. Observe & Interact | 7. Design from patterns to details |
| 2. Catch & Store Energy | 8. Integrate rather than segregate |
| 3. Obtain a yield | 9. Use small & slow solutions |
| 4. Apply Self-regulation & accept feedback | 10. Use & Value Diversity |
| 5. Use & value renewable resources & services | 11. Use edges & value the marginal |
| 6. Produce no waste | 12. Creatively use & respond to change |

Permaculture FEAST Description

Permaculture FEAST (for Social and Ecological Transformation) is a weekend based permaculture design course that moves from principles and patterns to details in a supportive, respectful and collaborative atmosphere to promote rapid learning of whole systems design. The main audience for the course are young adults and adults that have a busy schedule and are interested in permaculture design. The course is centered on experiential learning and hands-on skill building, including local field trips and reskilling where we will put theory into action. It goes above and beyond the standard 72-hour design course, offering attendees over 80 hours of content with an additional focus on social permaculture and urban techniques. The course concludes with a design practicum, where participants will work in small groups to develop a design for a client.

The course will take place at Simple Diaper and Linen in Holyoke, Massachusetts. Located near the Connecticut River, Holyoke was the first planned industrial city in the U.S. and harnesses much of its energy from a natural 57-foot drop in the river, utilizing a granite dam and multi-level canal system constructed in the mid 1800's. Like other post-industrial cities across the country, Holyoke is experimenting with innovative ways to meet the economic, social and environmental challenges facing the city in order to create a sustainable future for all of its residents.

Simple Diapers & Linen was founded in 2009 with a vision for a truly eco-conscious diaper service that connects families and helps foster responsibility for the planet. In 2011, they shifted from a sole-proprietorship into a worker-owned cooperative, making their business model

fair and democratic where workers share responsibility and ownership. They are proud members of the Valley Alliance of Worker Co-operatives (VAWC).²

Client Site for Final Project

Permaculture FEAST is partnering with Kate's Kitchen also in Holyoke, MA in an innovative collaboration. Students from the course will be working on a landscape and social enterprise design for Kate's Kitchen and the Food Works Program which will be implemented within the next 2-4 years. Kate's Kitchen is a community kitchen that was begun in 1980. From the opening day, at noontime, daily meals have been served to anyone in need with a "no-questions asked" policy. The Kitchen is open 365 days a year and provides approximately 150 meals per day. Since its inception, Kate's Kitchen has provided its neighbors over one million meals.

FoodWorks is a culinary training program of Kate's Kitchen that offers unemployed and under-employed individuals job training in the culinary field. The site also hosts La Finquita, the first community garden started by Nuestras Raíces.

Abstract of Lesson

Permaculture FEAST: Nourishing the community through its land will be an add-on lesson plan that will compliment the Permaculture Design Certification course. The lessons will focus on sense of place homework activities for each weekend. Each homework will assist students with their final real life design project.

Goal

Students will have a better understanding of the natural world in their community and implement at least one permaculture principle in their daily life.

Essential Questions:

1. What defines your place in your community?
2. How do you see yourself connected with your community?
3. Water nourishes plants, and you nourish your community.? What do you do that nourishes your community?
4. What are the permaculture principles? How do you include them in your daily living?

Student Learning Objectives

For the Permaculture FEAST Permaculture Design Certification course (PDC), instructor Lisa DePiano highlighted the learning objectives from her previous PDC courses.³

“Students gain knowledge and practical skills to design, build and maintain a regenerative landscape using ecological systems thinking. Specifically students will demonstrate knowledge in these particular areas:

The outcomes for this course include:

- Understanding of permaculture ethics, principles, and strategies
- Identify connections between social, cultural, environmental, and political challenges
- Recognize and analyze patterns found in society and the natural world

- Apply whole systems thinking to problem solving through design
- Observe, analyze, and assess a site to determine its resources and constraints
- Create a design for a site in the Pioneer Valley.
- Learn techniques to incorporate feedback and evaluation to existing projects.”³

By students completing the *Permaculture FEAST: Nourishing the community through its land* add-on lesson, students will be able to:

- Reflect upon permaculture design principles, ethics and strategies
- Increase awareness of connections between social, cultural, environmental and political challenges within their community.
- Analyze patterns within their lives and the community they live in.
- Demonstrate their ability to implement permaculture design principles, ethics and strategies in their lives.
- Enhance their observation and analytical skills for site design.
- Participate effectively in the learning community of permaculture design while developing a better understanding of themselves as community members.

Grading

By being a weekend-based course, the only grading requirement is to attend a minimum of 72 hours worth of course content during the 6 weekends. Each weekend will consist of 7 hours each day from 10am-5pm. For each assignment, students will participate in group discussions, sketching and group site design.

Lesson Overview

Permaculture FEAST Course topics	Add-on lesson plan topics.	Estimated duration of add-on lesson	Page number
Day #1 (Sat, Sept. 6): Permaculture history, definition and principles. Goal articulation & Niche analysis	Permaculture principles	3-5 days	7
Day #2 (Sun, Sept. 7): Tour of local farms (field trip)	Niche analysis	2 hours	7
Day #3 (Sat, Sept. 20): Permablitz (hands-on)	Journal Entry	1-2 hours	7
Day #4 (Sun, Sept. 21): Site Analysis & Assessment (A&A) & Client Interview	Synthesize site a&a	2-3 hours	7-8
Day #5 (Fri, Oct. 10): Forest Gardens	Sketching	1-2 hours	8
Day #6 (Sat, Oct. 11): Forest garden tours and food tasting	Sketching	1-2 hours	8
Day #7 (Sun, Oct. 12): Water	Journal Entry	1-2 hours	8-9
Day #8 (Sat, Oct. 25): Urban design & energy	Draw to scale	1-2 hours	9
Day #9 (Sun, Oct 26): Patterns & design concept	Individual design concept	2-3 hours	9
Day #10 (Sat, Nov. 8): Infrastructures	Finalize group presentation, design & individual concept.	2-3 hours	10-11
Day #11 (Sun, Nov. 9): Invisible systems	Journal Entry	1-2 hours	10-11
Day #12 (Sat, Nov. 22): Whole system design	Vision Statement	1 hour	11
Day #13 (Sat, Nov 23): Presentations	Next steps links	1-2 hours	11

Reading Materials for Permaculture FEAST PDC course

Permaculture FEAST printed Reading packet (See Appendix)

Essence of Permaculture by D. Holmgren

Paradise Lot Sketch Design by E. Toensmeier and J. Bates

Video: *Perennial Polyculture Guidelines* by E. Toensmeier

Water in Permaculture by B. Mollison

Appropriate technology and compost handout, landscape graphics. (need author!)

Constructively Reducing Your Waste by J. Engels

About the PDC Certificate by B. Wilson

List of Equipment and Materials

Materials provided from the Permaculture FEAST PDC course will include trace paper, markers, pencils, tables and rulers for in class design and reading packet. The add-on lesson will provide journals for journal entry and reflective homework.

Equipment used will include projector, power point presentations. For field trips, carpool will be planned. For the add-on lesson, Google Groups™ discussion emails and Google Docs™ journal entry.

Lesson Plan

Lesson #1: Seed of Permaculture-Weekend #1

Topics covered: *Day #1:* history of permaculture, permaculture principles, niche analysis and goal articulation. *Day #2:* Tours of Nuestras Raíces and Conway Garden

Teaching Techniques: Lecture, class participation, group discussions.

Readings: Essence of Permaculture by David Holmgren and Weekend #1 readings from reading packet.

Assignments: *First assignment:* Go 3-5 days following at least two permaculture principles.

Evaluate the experience of what you did and write in your journal. Guiding questions for students will be: What permaculture principles you used? How did it feel? What did you like? Didn't like? What changes you made in your daily routine? What changes didn't you make?

Second Assignment: create a niche analysis list of the sites that we visited (Nuestras Raíces and Conway Garden). Write on your journal the findings of the niche analysis. Guiding questions: were there any similarities? Differences? If you can run an organization similar to Nuestras Raíces, will the niche analysis be different? If you can have a site like the Conway Garden, will you use similar practices? Yes or no? Why or why not?

Assessment: submit journal entry and niche analysis on google docs labeled "Weekend #1 Integration assignments" by Tuesday, September 16.

Lesson #2: Site Analysis and Assessment (A&A) and Permablitz- Weekend #2

Topics covered: *Day #3:* Permablitz: hands-on garden installation day. Projects will include building of outdoor shower, tree planting and building raised beds. *Day #4:* Intro to design process, client interview, final project overview, site analysis and assessment, data collection.

Teaching Techniques: facilitation of hands-on activities, class participation, group discussion.

Readings: sketch and design of Paradise Lot's backyard and different layers used in the design.⁴

Weekend #2 readings from reading packet.

Assignments: *First assignment:* 1. Synthesize the site analysis and assessment of your group and add more details that you observed. Bring it to class the following week. *Second assignment:*

Journal Entry: students will reflect on the lessons you learned during this past weekend (Kate's Kitchen interview, Site A&A, data collection and installations at the permablitz) and answer the following guiding questions: What permaculture principles did you see already in place at the Kate's Kitchen site? What principles were missing? What excited you most about the site analysis and assessment? What installations did you enjoy most at the permablitz? The least? Can you use any of the permablitz's installations at the Kate's Kitchen? What would they be? How would you use them?

Assessment: Share site analysis and assessment that students synthesized the following weekend, submit journal entry on google docs labeled "Weekend #2 Integration assignments" by Tuesday, October 7.

Lesson #3: Big Picture & Food Forest Gardens- Weekend #3

Topics covered: *Day #5:* Lecture on Forest Gardens by guest speaker Eric Toensmeier. *Day #6:* Holyoke Forest Garden tour, polyculture design, tree crops and perennial vegetables, Triple Brook Nursery tour, food tasting, uncommon fruits and nuts. *Day #7:* Project evaluation, water, landform, review site A&A, studio time.

Teaching Techniques: Lecture from guest speakers, tour and food tasting, class participation, group discussions.

Readings: Video: Perennial Polyculture Guidelines⁵, Water in Permaculture⁶, Weekend #3 readings from reading packet.

Assignments: *First assignment:* Reflect back on the forest garden lecture and the tours of Paradise Lot and Triple Brook Farm. Sketch on your journal at least two experiences from the tours and write a 2-3 sentence description.

Second assignment: Thoreau Beans ⁷ (Inspiration by Janet Burne): Facilitator will read out loud the Thoreau Quote: “What shall I learn of beans or beans of me?... It was a singular experience that long acquaintance which I cultivated with beans, what with planting, and hoeing, and harvesting, and threshing, and picking over and selling them,-the last was the hardest of all,- I might add eating, for I did taste. I was determined to know beans.”

Students will trace the journey of the rain through their landscape, the landscape of a public place or favorite location. Students will sit down for 15-20 minutes just observing. Afterwards, students will write a journal entry following these guiding questions:

- Experience the landscape and the water flow. What is wet and what is dry?
- Can you help direct the raindrops?
- What are the pros and cons of the rain following its own path? Of the rain following your design?
- What is it that water nourishes there? What doesn't it nourish?
- Think of a path that you have taken in your life... What did you nourish and why?

Assessment: submit journal entry on google docs labeled “Weekend #3 Integration assignments” by Tuesday, October 21.

Lesson #4: Urban & Design- Weekend #4

Topics covered: *Day #8:* Urban regeneration, bioshelters, bioremediation, compost, micro-live stock, DIY energy/technology, grease, bike power, bio gas. *Day #9:* soil, patterns, design concept, graphics, design portfolio, schematic design.

Teaching Techniques: Lecture, class participation, group discussions.

Readings: appropriate technology and compost handout, landscape graphics. Weekend #4 readings from reading packet.

Assignments: *First assignment:* In a 1=20 scale, draw either a tree or building found during the site analysis and assessment. *Second assignment:* Create a design concept (individual design) for the following weekend.

Assessment: Presentation of drawing and introduction of design concept to the larger group.

Lesson #5: Buildings, Energy and Invisible Systems

Topics covered: *Day #10:* buildings & infrastructures, solar design, energy, slopes, waste systems. *Day #11:* Culture organizing, barometer, power & privilege, Theater of the Oppressed, community government, decision making, spokes council, occupy.

Teaching Techniques: Lecture, class participation, group discussions, demonstration and explanation of poster, acting and reflecting of Theater of the Oppressed.

Guest Speakers: Beehive Collective-The True Cost of Coal Poster⁸

Readings: Weekend #5 readings from reading packet, Constructively Reducing Your Waste⁹

Assignments: *First assignment:* complete individual final detailed design and presentation. *Second assignment:* work with assigned group to complete the final group design and presentation. *Third Assignment:* Journal entry: Think back to the learning goals you made at the beginning of the course. Have you met your goals? Did you learn something that you weren't expecting to? If so what were they?

Assessment: submit journal entry on google docs labeled "Weekend #5 Integration assignments" by Tuesday, November 18.

Lesson #6: Life, Self-Care and Final Presentations- Final Weekend

Topics covered: *Day #12:* economics, whole life design, herbal medicine. *Day #13:* Design groups presentations, graduation and next steps.

Teaching Techniques: Lecture, class participation, group discussions, student presentations.

Readings: About the PDC Certificate¹⁰

Assignments: using the whole life design, draft a vision statement that best define you.

Assessment: Final Presentation and follow-up emails on Google group account.

Bibliography

1. Telford, R. (n.d.) *What is permaculture?*. Retrieved from: <http://permacultureprinciples.com/principles/>
2. DePiano, L. (2009) *Course Description*. Permaculture FEAST. Published via email.
3. DePiano, L. (2013) *Permaculture Design and Practice Syllabus*. University of Massachusetts Amherst. Retrieved from: <http://www.justfoodnow.org/PermSummerClass.pdf>
4. Bates, J. & Toensmeier, E. (2000) *About us*. Paradise Lot. Retrieved from: <http://paradiselotblog.wordpress.com/about/>
5. Toensmeier, E. (2005) *Perennial Polyculture Guidelines*. Perennial Solutions. Retrieved from: [perennial polyculture guidelines - YouTube](http://perennialpolyculture.com/perennial-polyculture-guidelines)
6. Mollison, B. (1981) *Water in Permaculture*. Permaculture Design Course Series. Wilton, NH: The Rural Education Center; Pamphlet XI. Retrieved from: <http://www.permaculture.org/wp-content/uploads/2013/10/water-in-permaculture.pdf>
7. Thoreau, H. (1854) The Bean-Field. In Cramer, J.S. (Ed.), *The Portable Thoreau* (p.324). New York, NY: Penguin Book.
8. Mckelvy, E. (2010) The True Cost of Coal. *The Beehive Collective*. Retrieved from: http://beehivecollective.org/beehive_poster/the-true-cost-of-coal/
9. Engels, J. (May 13, 2014). *Constructively Reducing Your Waste*. The Permaculture Research Institute. Retrieved from: <http://permaculturenews.org/2014/05/13/constructively-reducing-waste/>

10. Wilson, B. (2013) *About the PDC Certificate*. Midwest Permaculture: Leaving the planet in a better condition than we found it. Retrieved from: <http://midwestpermaculture.com/about/certification/>

Appendix

Author / Source	Title
Regenerative Design Institute at Commor	Where are you?
Dynamics Ecological Design	Primary Definitions and Principles of Permacu
Holmgren, D. Permaculture: Principles and	The Essence of Permaculture
Dynamics Ecological Design	More Ecological and Permaculture Principles
AppleSeed Permaculture	A Design Process
Dynamics Ecological Design	Goals Articulation Process
Dynamics Ecological Design	Landscape Design Brainstorm Questions
Dynamics Ecological Design	The Scale of Permanence
Jacke, D. & Tonesmeier, E. - Edible Forest	Goals Articulation
Jacke, D. & Tonesmeier, E. - Edible Forest	Design Process 1: Overview, Goals and Asses
Dynamics Ecological Design	Human-Derived Site Analysis and Assessment
Natural Resources Science: Sotiriadis, B.	Using Topographic Maps
Conway School / Jacke, D.	Questions for Client Interviews
World Map of Koppen-Geiger Climate Cl	World Map of Koppen-Geiger Climate Classifi
Cafasso, K. - Sowing Solutions	"In the Zone..." Zone and Sector Planning
Regenerative Design	Zones of Use: Across Landscape Scales
Arbor Day	2006 Hardiness Zones Map
AppleSeed Permaculture	Climate/Meterological Web References
Jacke, D. & Tonesmeier, E. - Edible Forest	A Forest Garden Pattern Language
Bates, J.	Holyoke Edible Forest Garden Top 20 "Little k
Jacke, D.	Another Desifinition for polyculture design
Teaching Permaculture creatively by Earth	Dynamic Accumulators
Backyard Abundance	Polyculture Examples and Planting Guide
Cudnohufsky, W.- Conway School of Lan	Planting Design Process
AppleSeed Permaculture	Sample Perennial Polyculture Patches for Hor
Krawczyk, M. - Keyline Vermont	An Introduction to Edible Forest Gardening
Jacke, D & Tonesmeier, E. - Native Harves	An Edible Forest Garden Bibliography
Burlington Permaculture	Gardening in Shady Spaces / Shade Tolerant
Krawczyk, M. - Keyline Vermont	Make Your Own Liquid Garden Fertilizers
Burlington Permaculture	Putting Your Lawn to Work
Burlington Permaculture	Animals
Burlington Permaculture	Choosing livestock in permaculture systems -
Olkowski et al The Integral Urban House	Comparison of Various Animals for Urban Sm
Jacke, D.	Water in Permaculture Design
Cafasso, K.- Sowing Solutions	Water in Permaculture Design
Lancaster, B.	Water-Harvesting Principles
Lancaster, B.	Thematic Observation of Water
Jacke, D.	Some notes on Aquaculture

Permaculture FEAST	Bibliography: Water in permaculture design
Knowledge Pattern and Design	Fundamental Patterns
Alexander,C. - A Timeless Way of Building	Common Areas at the heart
Knowledge Pattern and Design	Patterns in Nature
Alexander,C.- A Timeless Way of Building	Path Shape
Jacke, D.	Six Soil Horizons
Jacke, D.	Soils
USDA NRCS	The Soil Food Web
South Bronx Garden Party Workday	Living Solutions for Urban Culture
Mollison, B.	Permaculture II
Harrison, L.	Soil Fertility
Presentation Plans	Appendix 1: Graphic Coventions
Cafasso,K. - Sowing Solutions	Built Environment
Smith, M.G,	Comparison of Natural Building Techniques
Smith, M. G.	Uses, properties and sources of natural building
Cafasso, K. - Sowing Solutions	Buildings and Infrastructure
Cafasso,K. - Sowing Solutions	Energy awareness and conservation resources
AppleSeed Permaculture	Solar Angles
DePiano, L.	Social Permaculture: Principles in Action
Dresdale, A. and Stedman,C.	Building a toolbox for Social permaculture
McIntosh, P.	White Priviledge:Unpacking the Invisble Back
Starhawk	What we want: Economy and Strategy for the
Alicandro Mace,J.	Herbal Medicine- Making for Community Resi
Moore, M.	A Brief History of Herbalism in the United Stat
Bates, J.	Whole Life Design Journey
Bates,J.	“Quality of Life” Vision Statement Exercise
Espinosa Marrero, C.	Permaculture Design Certification: Next Steps