Northey Street City Farm

Permaculture Design Course

Content and Learning Outcomes

Day	Topic	Content	Learning Outcomes
1	**Introduction to Permaculture**	Course outline What is permaculture History & global context Ethics & design principles Ecology of permaculture	• Get to know each other and the course program. Participants get to articulate their own goals for the course. • Understand the major environmental challenges • Appreciate your own context so that you can learn from and work with nature for a resilient, regenerative and abundant future. • Learn the ethics that form the foundation of Permaculture and the design principles and explore examples of how they can be applied within design, ecology and lives.
2	**Climate, Sectors, Zones & Patterns**	Climate systems Sectors & micro-climates Patterns of intent and zoning Functioning connections Patterns in nature	• Understand the earth's climatic systems and the effect of local and microclimate modifiers, both natural and manmade. • Ability to place something in the landscape based on its needs and the management. • Learn to value the connections between elements for a stable, resilient system. • Explore nature's patterns & the application of patterns in design.
3	**Design Process**	The design process People analysis & goal articulation Site assessment & 'Scale of Permanence' Base mapping & scale Individual design project	• Learn to use an ecological design process. • Assess people context and goals. • Construct a base map to scale. • Assess the site using the 'Scale of Permanence' and how to apply it to design. • Learn to map using trilateration and extension with offsets. • Learn to read the landscape and apply patterns in design.
4	**Soils in Permaculture**	Basics of soil, role in our environment, components & biota Plant nutrients, soil food web, soil sampling and PH. Dealing with soil problems Compost – methods & compost teas	• Understand soils as a complex physical, chemical & biological system. • Learn the implications of PH, soil samples and testing soil properties. • Develop strategies & methodologies to maintain and restore healthy soil. • Get hands-on experience in composting and a range of soil treatments. • Know the five ingredients of building soil.

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5	**Water in Permaculture**	Global distribution of water Water issues and functions in design Strategies to catch, slow, spread, sink, & store it Swales, terraces, contour systems & keyline Water efficient irrigation	• Appreciate the properties of water that make it essential for life. • Select suitable strategies to reduce runoff & improve infiltration. • Calculate water catchments and identify opportunities for conservation and recycling. • Understand water use in plants and foods, Efficient use of water in the garden. • Explore irrigation systems, grey water and water recycling, design for water re-use.
6	**Cultivated Ecology**	Principles of edible landscape design Functions and production Vegetable garden design & zonation Companion planting, crop rotation and mulches Maximizing space and edge Intercropping strategies	• Learn to look through the lens of the four-element design analysis. • Design intensive vegetable gardens using principles and strategies. • Appreciate the importance of crop rotation and diversity in a vegetable garden. • Understand the different advantages of both annual and perennial production.
7	**Animals in Permaculture**	Integrated animal systems & strategies Permaculture approach to ecosystem services Creating permaculture animal systems Bees, poultry and grazing animals Managing wildlife	• Consider the ethical implications of animals in a permaculture system. • Appreciate the importance of bees and design bee friendly environments. • Learn the role of animals in human welfare and ecosystem services. • Know how to design for permaculture animal systems. • Designing for wildlife.
8	**Trees in Permaculture**	Trees and their energy transactions Site factors and considerations Design strategies, stacking and succession Polycultures and guilds Creating wildlife habitat	• Learn how to use ecological principles to design productive agroforestry systems, including food forests and orchards. • Design for succession, food production, shade, microclimates, windbreaks, fodder, erosion control & habitat. • Understand integrated management practices and the design of polycultures.
9	**Day off for Design**	Day off to work on base map and overlays	
10	**Group Design Day**	Applying the design process from goal articulation to schematic design for a school, community garden or organization	Get a deeper appreciation of the Permaculture design process as applied to a 'real life' site and client and within a limited time frame.
11	**Social Permaculture & Building Community**	What is social permaculture & socio-metrics? Applying ethics and design principles to community life Re-localisation & transition People care Building & maintaining effective groups	• Understand the scope of social permaculture. • Explore how permaculture principles, ethics and ideas can relate to social systems. • Understand localisation and bioregionalism and why they are important. • Be inspired by global and local communities and projects • Reflect on caring for self and the process of improvement. • Have some tools and references for working effectively in groups and understand considerations needed for working in groups.

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12	**Work on Design** **Building a resilient garden ecology**	Working on your designs Role of pests and disease in ecology Strategies based on management and design, cultivation, habitat and biological controls	• Time spent with peers and educators exploring possibilities with your individual design. • Gain the ability to design an integrated system to reduce weed issues, attract natural pest predators and develop a strategic approach to pest and disease control.
13	**Design your Life**	Holistic context, goals and lifestyle Inner-landscape	• Gain an introduction to 'Holistic Context' and how to use it as a personal decision-making process. • Explore the 'three mistakes' and how we can avoid them • Build a daily statement of purpose, starting where you are and looking to the quality of life you want.
14	**Sustainable housing** **Appropriate technology**	Green architecture Operable buildings Low impact tech Technology appropriate to lifestyle Peak oil and the 'carbon pulse'	• Explore passive heating and cooling of new and existing homes, and appropriate materials in construction. • Learn about integration of house and garden. • Understand the concept of appropriate technologies as applied to permaculture, including low tech solutions. • Gain an overview of electrical energy systems, cooking tech, transport, information technologies and waste management. • Explore the peak oil concept and the role of abundant, mobile and inexpensive carbon-based energy in complex societies.
15	**Day off for Design**	Day off to finish and finalize designs	
16	**Design Presentations** **Revision & evaluation** **Where to from here?**	Presentations of participants' designs Reflection and goals Exploring worldviews Permaculture buy-in Where to from here?	• Present individual designs, including Ethics and Design Principles integration. • Pause and reflect on what they have achieved and what they have learned. • Revisit the ethics and design principles with new eyes and explore worldviews. • Look at lifestyle examples and explore where to from here.