

Course outline, Permaculture-Design-Course *permakulturschule.com*

1. Introduction

Permaculture, what for?
What's accelerated climate change
Peak Oil and the end of suburbia
The ecological footprint
Simple math the exponential function
What is Permaculture?
Moral, Ethics & Principles of PC
The history of permaculture
Self-sufficiency & sustainability
Eroei & Emergy
Differences of areas & elements.
Content of the permaculture design
certificate course.

2. Concepts and Themes in Design

Gaia, the earth a living organism
What are PCD principles
Energy & entropy
Be careful resolving problems
What is a resource, what's a yield
Strategies to increase yield
and diversity
Harvest, storage, preservation
What is a pollutant
Cycles and niches in time.
Design strategy

3. Methods of Design

Definition of PCD
The prime directives for function
Design, a step by step guide
Zones & Sectors
Incremental Design
Summary of design methods
Energy flow in a system
Energy efficient arrangement of
components and elements.
Succession & maintenance
Evolution in a system
Connecting with people PCD summary
Guilds & principles of polyculture cropping

4. Pattern

Landscape Pattern
Energy flow in Landscapes
Pattern in design
The edge effect
Harmonics and geometrics of boundaries
Boundaries and their yield
The tribal use of patterns.

5. Climatic factors

Climatic factors
Climatic zones
Forms of Precipitation
Our Atmosphere
Precipitation and Wind
Landscape effects
Albedo effect
Microclimate
Tornados and Cyclones

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6. Trees and their energy

transaction

The biomass and uses of trees
Trees and their influence on soil, water,
climate, precipitation and biosphere
Hedges, windbreaks, shelter belts
Creating a forest garden

7. Water

The global water cycle
How to store water
How to preserve water
Precipitation & evaporation
Water & soil
Keyline, ponds, dams, tanks
Earthworks
for water conservation and storage
Purification of polluted water
Biotores, natural swimming pool
How to produce biogas

8. Aquaculture

History
The case for aquaculture
Ponds, lakes, swales, channel, chinampas
Fish farming
How to farm invertebrates for fish food
Yield factors

9. Soil

Soil pollution & erosion
Creation and composition of soil
Soil pores and crumb structure
Ph, gaseous content and processes in soils
The soil biota
Soil conservation
Difficult soils
Soil classification
Biol. indicators of soil and soil conditions
Soil improvement methods

10. Earthworks and earth resources

Planning, judgement and timing
of ethical earthworks
Different methods of surveying
Types of earthworks
Earth constructs
Planting after earthworks
Earth resources

11. PC in humid cool and cold climates

Climate, precipitation, temperature
Soil improvement & water conservation
Settlement & house design,
Ecological building materials
The house garden
The greenhouse
Orchard, forest garden, agroforestry
Free range forage systems, fences
Lawns, grasslands, rangelands
Food processing & storage
Integrated animal systems
Urban development and planning

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12. PC in humid tropics

Climate, precipitation, temperature
Soil improvement & water conservation
Settlement & house design,
Ecological building materials
The tropical home garden
Traditional & modern polyculture
cropping systems
Orchard, forest garden, agroforestry
Free range forage systems, fences
Food processing & storage
Integrated animal systems
Pioneering strategies

13. PC dryland strategies

Climate, precipitation, temperature
Soil improvement & water conservation
Harvest of water in arid land landscapes
Settlement & house design
The desert garden
Orchard, forest garden, agroforestry
Plant themes for drylands
Free range forage systems
Food processing & storage
Integrated animal systems in drylands
Pioneering strategies
Desertification and the salting of soil

14. Strategies of an Alternative Global Nation

Ethical basis of an alternative nation
Alternatives to political systems
Interest & compound interest
Money, finance & ethical investment
Alternative currencies
Urban Permaculture, Transition Towns
Public welfare economy
NGOs, Development aid versus
help for self-help,
Steve Cran, 5 rings of sustainable
community development

15. Project planning & presentation

Single or group project
Project presentation
Party and certificate presentation
Showtime