



Permaculture Design Certificate Course Outline

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Chapters of The Designers' Manual by *Bill Mollison*

Day: 1 Chapter 1: Introduction

- Evidence that we need to act
- Introduction to permaculture
- Ethics
- Definition of permaculture
- Real world design
- Brief worldview of permaculture (what does it do and where?)
- What does this course do for you?

Day: 2 Chapter 2: Concepts & Themes in Design

- Sustainable systems
- Agricultural systems that can satisfy these criteria of sustainability
- The natural hierarchy of production per unit area in natural systems:
- Permaculture is primarily a design for a sustainable, human-controlled support systems.
- The Prime Directive of Permaculture.
- Principles of natural systems and design.
- Guiding principles of permaculture design:- Design can be for aesthetic and
- functional purposes. Permaculture design concentrates on function.

- The web of life and net of functional relationships of designed ecosystems.
- Potential energy capture within systems energy flows to useful life niches or storages available as yield.
- Diversity is related to stability
- Yield defined

Day: 3 Chapter 3: Methodology of design

- Design emphasizes patterning of landscape, function, and species assemblies.
- Permaculture science and ethics of design patterning
- Approaches to design
- Maps
- Analysis of elements
- Sector planning
- Observational
- Experiential
- Zones
- Sectors
- Slope
- Orientation
- Experiential
- Putting it together
- Surveying
- Methods of Design
- Concepts and themes in design
- Principles and laws of natural systems
- Conversion of a laws and principles to a directive to act
- Entropy extension
- The principle of chaos and disorder
- The first law of thermodynamics, energy auditing
- The Over-run thesis

- The Life Ethic thesis
- Resources, Their nature and management
- Definition of resource use effect

Day: 4 Chapter 4: Pattern Understanding

- Revelation, seeing in one example 1000 questions
- Seeing pattern as valuable connections
- Growth patterns and explosive patterns
- Scale of orders of size
- Events and pressure between media
- Recognizing pattern
- Pattern evolutions _
- Applying patterns in productive design
- Information dense pattern as teaching systems
- Traditional uses of pattern

Day: 5 Chapter 5: Climate Factors

- Climate and classic landscape profiles
- Climate Differences
- Temperate Tropical, Arid, continental climates, the maritime effect and rain
- shadows
- Orographic effects
- Classic landscape profiles
- Major landscapes Humid and Arid _
- Minor landscapes Volcanic, islands high and low, coasts, flatlands, wetlands, estuaries
- Ecosystems as climate moderators

Chapter 6: Trees and their Energy Transactions

- Wind
- Light

- Rain
- Types of forest
- Fuel – Forage – Structural – Shelter; animal barrier – Food – Natural –
- Conservation
- Establishment of forest
- Forest management

Day: 6 Chapter 7: Water

- Water
- Water harvesting earthworks
- Rechargeable water and non-rechargeable water
- The duties of water in landscape design
- Swales
- Gabions
- Limonia
- Dams
- Types of dams
- saddle dams
- Ridge dams
- Key point
- Valley dams
- Contour dams
- Evaporation strategy
- Hard surfaces like roofs and roads
- Irrigation systems
- Components of irrigation systems
- Irrigation rules for arid regions
- Waste water systems

Day: 7 Chapter 9: Earthworking and Earth Resources

- Earthworks and earth resources

- Terra-forming
- Earthworks necessary and ethical
- Landscape restitution
- Moving earth with Machinery and Hand tools
- Planning earthworks prior to the actual job
- Soil tests
- Surveying and site pegging
- Planting after earthworks
- Slope measurements
- Levels and leveling
- Types of earthworks
- Banks
- Benching
- Terracing

Chapter 10: Humid Tropics

- The tropical house
- Waste systems
- Garden design
- Wet terraces
- Main crops
- Food forest layers
- Seeds, cuttings ,root divisions
- Small animal systems
- Large animal management
- Mulch and forage production
- Seasonal timing
- Tropical settlements

Day: 8 Day OFF

Day: 9 Chapter 8: Soils

- Soils
- Difficult soils
- Understanding soil erosion as number one global problem
- Understanding where and why soils are conserved or increased
- Understanding pH acid/alkaline analysis and interpret the consequence
- Compost and the decomposition cycle of humus creation
- Creation of humus in soil
- The function of the hair roots of plants feeding on minerals and structuring soil
- with starch exchange.
- What can be done locally plants, mulch holes and nuclei (story of the bush turkey nest).
- Soil conditioning with the key line system: Difficult soils, Alkaline soils, Acid soils, Platin, Caliche, Non-wetting soils, Clay

Day: 10 Chapter 11: Dry land Strategies

- Anti-evaporation strategies
- The dry lands house
- Waste systems
- Garden design
- Shade system food forest/main crops
- Seasonal timing
- Seeds
- Mulch and forage production
- Dry land settlements
- Small animals
- Grazing patterns

Chapter 12: Humid Cool to Cold Climates

- House design and attachments

- Heating systems
- Waste systems
- Crop season extension
- Garden design
- Main crops and storage
- Food forests
- Mulch and forage production
- Seeds, tubers
- Seasonal timing
- Small and large animal systems
- Grazing cycles and pan-nage

Day: 11 Chapter 13: Aquaculture

- Aquaculture
- Select species (plant and animals) for pond size.
- Set up self-foraging systems for fish
- Pond sizes
- Mini-ponds in gardens
- Self- Forage Systems
- Aquaponics
- Half day design exercise

Day: 12 Chapter 14: The Strategies of an Alternate Global Nation

- The strategies for an alternative global nation
- Invisible structures
- Necessary legal structures
- Formal and informal financial strategies
- Trade
- Self-referencing authentication, quality and education
- Village systems
- Half day design work

Day: 13 Chapter 14: The Strategies of an Alternate Global Nation

- Permaculture local groups (associations), institutes, academies and universities
- Unintentional community establishment
- Permaculture aid
- Design presentation in the afternoon
- Celebration party in the evening

Day: 14 Half day: Permaculture nation, conferences, networks, teacher registrations.

- Certification
- Where to from here?
- Group photo