



[Outline for the Permaculture Design Certification Course](#)

The following is the outline for the 72-hour accredited Permaculture Design Certification (PDC) Course Curriculum. The format is derived from the textbook, "Permaculture: A Designers' Manual", by Bill Mollison. While this curriculum is meant to be an in-depth study of sustainable design, it can only serve as an introduction. Only real-world experience can develop true skills as a designer.

After completion of the course and required materials, the participant will receive a Certificate as a Permaculture Design Trainee. Only after several years of practical application can one call themselves a Permaculture Designer. This process is peer reviewed, and ensures a high standard for ecological design.

The course is participatory, and participation is mandatory. A 90% attendance to all lectures and hands-on practicums is required to gain a certificate. Participants will be expected to present a Design Project as part of a design team at the end of the course.

We will work hard, and play hard. The course topics can be depressing- and uplifting. The workload may seem to be a lot, yet your sense of accomplishment at the end will far outweigh this. You get out of it what you put into it... and don't forget to have fun!

Course Schedule:

Session Name	Time	Minutes
I	9:00 - 10:30	90
Break	10:30 - 11:00	30
II	11:00 - 12:30	90
Lunch	12:30 - 2:00	60
III	2:00 - 3:30	90
Break	3:30 - 4:00	30
IV	4:00 - 5:30	90
Dinner	6:00-7:30	90
V	7:30-9:00	90

****Sessions I-IV are required. Session V is optional, though recommended.***

Day 1:

Session I: Course Introduction

- Participant Introductions- brief background and course expectations.
- Course administration, timetable, and scheduling.
- Consensus Based Codes of Conduct.
- Description of the Designer's Manual as textbook, and other reading resources.

Session II: Tour

- Tour of site and facilities.

Activity- Collecting materials for a compost pile

Session III: Ch.1 - Introduction and Ethics

- What is and Why Permaculture Design?
- Description of challenges and solutions.
- History and philosophy of permaculture as a taught and applied design system.
- The Ethics.

Session IV: The Principles and Examples of PC in the Community

- The Principles as described by Bill Mollison, David Holmgren, and others.
- Applications and examples of permaculture in landscape, society and community.
- The Bill of Human Rights.
- References.

Session V: Movie- The Global Gardener Series

Day 2:

Session I: Ch. 2- Concepts and Themes of Design

- Tradition, culture, and belief systems.
- Life principles and natural laws stated.
- Methods of design, resources, yields, cycles, food webs, growth.
- Complexity, connections, order, and chaos, permitted and forced functions.
- Inter-active diversity, stability, fertility, sustainable productivity and profitability, time and yield.

Session II: Ch. 3- Methods of Design

- Functional Design Development – Analysis, Observation and Deductions from nature
- Maps and using them.
- Sector Planning
- Slope, Key Points, orientation, aspect, data overlay
- Zones and their placement.
- Designing in zones 1, 2, 3, 4 and 5.
- Incremental design and guilds.
- Succession and evolution
- Establishment and maintenance.
- Designing for Disaster, fire, flood, drought, earthquake, landslip and tsunamis.
- The Cultivated ecology and practical procedures of property design.
- Holistic Goal Setting.
- References.

Session III: Compost Practicum

Activity– Building the compost pile with optional hot water heater.

Session IV: Element Analysis

- Needs and resources list
- Intrinsic Characteristic Analysis
- Principle summary and summary of Design Methods.
- Client Briefs- working with and for other people.

Session V: Observation Exercise

Activity– Sit quietly and observe the landscape noting elements and interactions.

Day 3:

Sessions I and II: Ch.4- Pattern Understanding

- Patterns in nature listed as form, the core model pattern, and properties of media.
- Universal patterns micro to macro, matrices and the strategies of compacting and complexing components.
- Pattern in design, edge effect, boundary conditions, harmonics and geometries of boundaries.
- Compatible and incompatible borders and components, timing and shaping events.
- Flow patterns, open and over landscape and objects, spirals, mnemonics, dimensions and potentials.
- Accretion and expulsion, branching pattern effects, conduits.
- Orders of magnitude in branches, scale of size.
- Orders, dimensions and classification of events, time and relativity model.
- Tessellation of events in the world we live, pattern application.
- Events, toroidal phenomena and the five senses.
- Memory and pattern recognition, companion planting and guilds.
- Traditional use of cultural patterns in society and in the present world society.
- Designer's checklist.
- Review Keypoints & questions

Session III: Property Design Exercise

- Identification of Zones, Sectors, and microclimates.
- Flow Diagrams.
- Creating base maps and overlays.
- Tools of the trade.

Session IV: Natural Building

- Selecting a site for your building.
- Materials and methods.
- Passive heating and cooling designs.
- Roof, wall, and floor materials.

Session V: Natural Building Presentation

Activity: Identification of current/potential local use of patterning in relation to key survival information.

Day 4:

Session I: Ch.5- Climatic Factors

- The humid, temperate, cold, arid, continental climates, plus variations.
- Global weather patterns, the engines of atmosphere.
- Humid, arid and minor landscape profiles and orthographic affects.
- Latitude and altitude.
- Precipitation, radiation, and wind.
- References.
- Designer's checklist.

Activity: Defining pattern of local climate – seasonal effects & planting seasons (frost dates etc).

Session II: Ch.6 - Trees And Their Energy Transactions

- Definition of forest and the biomass of a tree.
- Temperature, wind, total precipitation, snow and melt water effect.
- Root, mineral and rain interactions.
- Implications for design.
- The many types of forest.
- Establishing forest.
- Maintaining extending and enhancing forest.
- Establishing a nursery seed collection and in ground plant stock.
- References.
- Summary

Session III: Herbs and Herbalism

Activity– Observing and harvesting herbs in the garden

Session IV: Basic Botany and Plant Propagation

- Basic Botany.
- Basics of seed saving.
- Plant Propagation techniques.
- Nursery Design.
- Forest and Forestry Types.

Activity– Identification and collection of seed on site.

Session V: Tea party with Sandy in Lodge

Day 5:

Session I: Ch.7 - Water

- Chemical & structural properties of water.
- Water in design.
- Regional interventions and the water cycle.
- Water harvesting earthworks for conservation and storage.
- Rainwater harvesting systems.
- Ecological Sanitation and Biological Water Filtration.

Session II: Watershed Dynamics

- Fluvial Geomorphology
- Hydrology and geology
- Structural features of watersheds
- References.

Session III: Contour Practicum

Activity: Building an A-Frame Level, surveying basics

Session IV: Ch.8 - Soils

- Soils direct link to health.
- Traditional methods of investigating soils.
- The pH, organic matter content and primary nutrients.
- Soil pores and crumb structure importance.
- Soil structure and its relationship to life elements, water and base rocks.
- Legumes as nitrogen fixers and the phosphate accumulating plants.
- Plants and biological elements as deficiency indicators and mineral accumulators.
- Difficult soils.
- Composting as an easily understood art form of humus creation.
- Seed pelleting, soil erosion and rehabilitation.
- Establishing a worm farm.
- Soils in house foundations.
- Designers check list, References.

Activity: testing pH of selected soils, Jar method to investigate soil makeup

Session V: Movie- Food Inc.

Day 6:

Session I: Zone 1-3 Animal Systems

- Backyard poultry
- Pigs, goats, sheep, and cattle
- Beekeeping
- Aqua- and vermi-ponics

Session II: Designing and Making Profits from Small Farms

- Crop and livestock selection for your site
- Land forming and Zonation
- Market research
- CSA's and direct marketing
- Planting and harvesting schedules
- Harvesting protocols and food preservation
- Seed saving

Sessions III and IV: Tour of local farms

Activity: Field trip to Lompoc

Session V: Movie- Power of Community

Day 7:

Day Off- optional group outing to local sights and farms

Day 8:

Session I: Ch.9 - Earthworks and Earth Resources

- Earthwork design concept planning.
- Planting after earthworks.

- Types of earthworks, earth constructions and earth resources.
- Understanding the surveying of basic levels and slope measurement.
- Using a farmers level, dumpy level, A-frame and water levels.
- Technique of building a dam, swales, earth banks, terraces, roads and drains.
- Using the right machine for the job.
- References.

Session II: Keyline Design and Broad Acre Strategies

- Identification of Key Points.
- Earthen Dam Construction.
- Keyline Plowing.
- Road design for water harvesting.
- Windbreak and paddock design.

Session III: Earthworks Practicum

Activity: Sand play – designing water storage features and managing flow.

Session IV: Design Project Brief

- Design exercise presented to students on a real piece of land with realistic design brief for the local area.
- Students are split up into working groups.
- Students pick a client/project and conduct an interview.

Session V: Movie- Flow

Activity: Group design work.

Day 9:

Session I: Ch.10 - The Humid and Sub-Tropics

- Climate types, tropical soils and earth shaping.
- House design and home garden.
- Integrated land management, Elements of a village complex in the tropics.
- Evolving a polyculture, themes on a palm dominant polyculture.
- Pioneering, animal tractor systems and grassland and rangeland management.
- Humid tropical coast stabilisation and shelterbelts.
- Low islands and coral cay strategies.
- Designers' checklist.
- References.

Session II: Ch.11 - Dryland Strategies

- Precipitation, temperature, soils.
- Landscape features in deserts, harvesting water in arid lands.
- The desert house, the desert garden, garden irrigation systems.
- Desert settlement and broad strategies.
- Plant themes for drylands, desertification and the salting of soils.
- Cold montane deserts.
- Designers' checklist.
- References.

Session III: Ch.12 - Humid Cool to Cold Climates

- Characteristics of a humid cool climate, soils, landform, and water conservation.
- Settlement and house design, the home garden, berry fruits, glasshouse growing.

- Orchards, farm forestry, free range forage systems, the lawn.
- Grasslands, rangelands, cold climates, wildfire.
- Designers' checklist.
- References.

Sessions IV and V: Design Projects

Activity: Group design work.

Day 10:

Session I: Ch.13 - Aquaculture

- The case for aquaculture.
- History and cultural variations.
- Implementing an aquaculture design, species selection and yield.
- Aquaculture as part of design and food supply.
- Aquaculture plant and animal species.
- Farming invertebrates for fish food.
- Appropriate techniques, channel, canal and chinampa.
- Designers check list.
- References.

Session II: Urban Design Strategies

- City repair
- Guerrilla gardening
- Seed bombs
- Rooftop gardens
- Metropolitan Buyer's Clubs

Session III: Ecological Sanitation Practicum

Activity: Compost toilet construction, constructed wetlands, and simple grey water systems.

Sessions IV and V: Design Projects

Activity: Group design work.

Day 11:

Session I: Alternative Energy and Appropriate Technology

- Rocket Stoves
- Biogas
- Solar
- Wind

Activity: Alternative Energy Practicum- Rocket Stove construction

Session II: Ch.14 - The Strategies of an Alternative Global Nation

- Invisibles structures
- Alternative global nation.
- Right livelihood.
- Setting up a local permaculture group and working network.
- Community gardens, establishing city farms, urban strategies and land access.

Session III: Alternative Economies

- Lets, alternative money, bioregional organization, village development, ethical investment.

- Dynamic Equity and Alternative business structures
- Working in different cultures with sensitivity, effective aid.
- References and resources.

Session IV and V: Design Projects

Activity: Group design work.

Day 12:

ALL DAY- DESIGN PROJECT GROUP DESIGN WORK

Evening: Passion Show!

Day 13:

Sessions I, II, and III: DESIGN PROJECT PRESENTATIONS

Session IV: Design Project Review

- Client feedback

Session V: The Permaculture Global Nation

- Diploma Ceremony and information.
- Permaculture academy.
- Certification and student intention affirmations.
- Feedback opportunity on course materials/teaching/activities

Day 14:

Session I: Closing Circle

Sessions II: Sunday Service

Session III: Pack up and Departure

- **Good luck to you in your design careers!**
- Thank you for your passion and inspiration!