

**Permaculture Design Course:
Core Curriculum
V3.0 (March 2020)**

Introduction

The curriculum presented here describes the content that must be included in a Permaculture Design Certificate (PDC) course, if a certificate from the Permaculture Association (Britain) is to be awarded.¹

Please note that there is a 72 hours minimum contact time between teacher and student to be awarded this certificate. In this period it is impossible that all of the topics outlined herein will be covered in detail, however some detail may be entered into and students may be signposted to researching further in their own time.

It is internationally recognised that 'Permaculture: a Designers' Manual' by Bill Mollison is the basis for the PDC curriculum. This curriculum builds on the Designers' Manual and extends the scope; adapted to address challenges of British and other diverse mainly European contexts and to reflect the development of the permaculture field since the Designers' Manual was published. It has been updated from a previous version (issued in early 2013, updated in August 2014) updated in February 2018 by the Education Working Group (EWG) of the Permaculture Association Britain.

This document states the absolutely essential topics that must be included in a Permaculture Association PDC and optional, but recommended topics *in italics*. It does not include a comprehensive list of subjects that the PDC could include; courses will almost certainly include other subjects (especially skills and practice based learning) and may be targeted towards a specific area or group of people, or draw on the expertise of the teacher and students.

This document does not tell you **how** to teach permaculture. If you are planning a PDC, you can find inspiration in, e.g. 'Permaculture Teachers' Guide' and 'Teaching Permaculture Creatively'. EWG is also working on quality guidance for 'How to teach effectively'.

For online PDCs and blended learning PDCs - Please pay particular attention to the delivery of the course.

You will need to record on your core curriculum document how and when the following points are addressed in your course:

¹ Externally accredited learning outcomes for the PDC are also available from the Permaculture Association for those who are interested in delivering accredited training. Please contact the office for more information.

4.2 Skills, Tools & methods (How are you assessing each student's understanding and ability prior to moving on to the next topic?)

4.3 Design Practice (How are you assessing each student's understanding?)

4.4 Design Presentation (Do they have the opportunity to develop their design skills with a group? / How is their final design presentation peer reviewed?).

5.8 Visit site(s) which exemplify permaculture principles. (Do you identify local sites and promote or arrange visits for students?)

Background to this document

This curriculum was produced by the Education Working Group, a voluntary group of members of the Permaculture Association. It includes input from all the home countries. The project originally consulted widely among British permaculture teachers at key stages, and took place between March 2010 and January 2013. It also absorbs a similar process from diploma teachers in Scotland. The document will continue to be reviewed regularly. Please contact the office to submit contributions to future versions.

DISCLAIMER:

This document is for use by teachers intending to award a Permaculture Association (Britain) PDC Certificate. It makes no statement regarding the relative quality of any other PDC curriculum, or the suitability of other curricula for any given context.

The Permaculture Association can accept no responsibility for the quality or content of courses that are certified by other organisations.

The Curriculum

By the end of this course, students will know about:

1. Context

- ◆ What is permaculture?
- ◆ Permaculture as an approach to designing systems which meet human and ecological needs.
- ◆ A brief history of permaculture
- ◆ Permaculture is about taking responsibility:
i.e. The Prime Directive of Permaculture: "The only ethical decision is to take responsibility for our own existence and that of our children." - Bill Mollison.

2. Ethics

- ◆ Earth Care
- ◆ People Care
- ◆ Fair Shares (*"setting limits to population and consumption"*)

Some teachers now replace Fair shares with Future Care.

Refer to *Permaculture: A Designers' Manual* for full definitions. *Essentially permaculture teachers agree to teach the discipline respecting ethical values.*

Many teachers:

- *explore different interpretations of the ethics and how they are applied in practice.*
- *ask at the outset why students are on the course*

3. Principles

The principles below are as they appear in the Mollison's Designers' Manual. Other wordings are acceptable.

3.1 Attitudinal Principles:

- ◆ Work with nature, not against
- ◆ The problem is the solution (Liabilities into assets)
- ◆ Make the least change for the greatest possible effect

Many teachers also include:

- ◆ *The yield of a system is theoretically unlimited*
- ◆ *Start from your back door and work outwards*
- ◆ *Everything Gardens (or has an effect on its environment)*

3.2 Ecological Principles:

- ◆ Cycling of energy, nutrients & resources
- ◆ Succession
- ◆ Edge effects
- ◆ Microclimate
- ◆ Every element performs multiple functions
- ◆ Every function is supported by multiple elements
- ◆ Relative location

3.3 It is essential to include the Holmgren Principles - *you may choose the level of depth you explore them in as well.*

- **Holmgren Principles**

1. Observe and interact
2. Catch and Store Energy
3. Obtain a Yield
4. Apply Self-Regulation and Accept Feedback
5. Use and Value Renewable Resources and Services
6. Produce No Waste
7. Design from Patterns to Detail
8. Integrate Rather than Segregate
9. Use Small and Slow Solutions
10. Use and Value Diversity
11. Use Edges and Value the Marginal
12. Creatively Use and Respond to Change

Many teachers also include:

- ◆ *Principles as re-stated by other teachers*
- ◆ **Co-operation** rather than **competition**. *How does this square with the fact that nature is competitive as well as collaborative?*
- ◆ **Niches** – *how to profit from them*
- ◆ Use **stacking** in space and time to increase yields.
- ◆ Value **Diversity**: including guilds.
- ◆ **Efficient energy** planning (e.g. zone, sector, slope).
- ◆ **Flows** of energy and resources
- ◆ Place elements to **maximise the beneficial relationships** between them (relative location).
- ◆ Value **biological resources**
- ◆ **everything works both ways**
- ◆ positive & negative **feedback loops** / virtuous circles; spirals of intervention and destruction
- ◆ **permaculture is information and imagination-intensive.**

4. Design

4.1 Permaculture design can be applied in many different ways and contexts e.g.:

- Energy Management
- People Care and people systems e.g. community design
- Landscape Design: urban, rural, farm scale, garden scale
- Pattern understanding, for example: Physical patterns; Mental patterns; Behavioural patterns; Natural patterns
 - Designing from pattern to detail

4.2 Process Frameworks:

1. Key design process frameworks such as: SADIM / OBREDIMET / other.

Many teachers also include:

- ◆ *The Design Web*
- ◆ *CEAP*

4.3 Skills, Tools & methods:

- ◆ Observation
- ◆ Patterns
- ◆ Research
- ◆ Client Interview
- ◆ Surveying
- ◆ Maps & Mapping
- ◆ Key Planning Tools:
 - ◆ Zones, sectors, energies in the landscape
 - ◆ Reading the landscape
 - ◆ Relative location
 - ◆ Input/output analysis
 - ◆ Climate & microclimate
 - ◆ Further analysis tools (e.g. identifying functions and elements, SMART goals, SWOC, placement, design by limiting factors, process flows)

Many teachers also include:

- ◆ *Levelling tools: A-frame; Bunyip*
- ◆ *Plants, animals, structures, tools/technologies, events (PASTE).*
- ◆ *Mapping tools:*
 - Elevation*
 - Pacing*
 - Slope/aspect*
- ◆ *Digital and technological tools*
- ◆ *Plus, Minus, Interesting (PMI) evaluation tool*
- ◆ *Conservation & hierarchy of intervention*

- ◆ *Yeoman's scale of permanence*
- ◆ *McHarg's exclusion method*
- ◆ *Limiting factors and hierarchy of resource use*
- ◆ *Random assembly*
- ◆ *Data overlay*
- ◆ *Collaborative decision making*
- ◆ *Phenological/biotime diaries*
- ◆ *Wild design*
- ◆ *sit spot*
- ◆ *Shade mapping*
- ◆ *spirals of erosion & entropy*
- ◆ *cascade of intervention*
- ◆ *6 coloured thinking hats*

4.4 Design Practice

- ◆ A series of opportunities to develop and practice design skills throughout the course, leading to...
- ◆ Final design exercise (*This may be individual and/or group exercise*) that is both sustainable and productive
- ◆ *Group working/process skills, for example:*
 - ◆ *Planning & allocating roles, tasks & time*
 - ◆ *Decision making in groups (Sociocracy for example)*
 - ◆ *Communication & conflict resolution*
 - ◆ *Presentation & recording skills*
 - ◆ *Using permaculture principles & ethics in groups*

It is important that students have the opportunity to understand and practice design skills for both physical contexts (e.g. gardens) and non-physical contexts (e.g. course structures; education programmes; lifestyle and livelihood; etc).

4.5 Design Presentation

- ◆ Students should have seen at least two implemented designs of diploma standard
- ◆ Sharing & evaluating design work. The design may be an individual and/or group presentation; creative presentations are encouraged. For distance learning, a design portfolio should be submitted
- ◆ How to present - presentation skills, hints & tips
- ◆ How to give & receive feedback (if students are giving each other feedback).

It is highly recommended that students see the designs of any projects they experience as site visits - see point 5.8.

Many teachers also use audiovisual material to provide students with the opportunity to see high quality implemented designs.

4.6 Celebration

- ★ optionally inviting previous PDC graduates and friends to the celebration

5. Themes

The extent to which each of the following will be examined depends on the audience and circumstances of the course.

5.1 Soil

The following topics should be covered to a depth appropriate to the circumstances:

- ◆ Soil food web: macro- and micro-organisms and their relationships
- ◆ Tilling: pros & cons
- ◆ Composting
- ◆ Mulching – why and how
- ◆ Soil sampling & analysis: types, textures, pH. Simple solutions.
- ◆ Mycorrhizal and bacterial associations
- ◆ Fertility factors
- ◆ Erosion – a natural process: plus and minus
- ◆ Indicator species and dynamic accumulators

5.2 Water

A minimum of 4 of the following topics should be covered in detail and all of them mentioned:

- ❖ Water availability
- ❖ The hydrological cycle
- ❖ Rainwater harvesting
- ❖ Retention in the landscape (e.g. trees, soils, swales, key line planning etc). Dryland vs temperate.
- ❖ Drainage
- ❖ Water use in the home and at work and domestic water saving
- ❖ Aquaculture
- ❖ Water as an energy store

5.3 Plants/trees

A minimum of 5 of the following topics should be covered in detail and all of them mentioned:

- ◆ Tree species, native & exotic, and uses
- ◆ Energy transactions of trees
- ◆ Forest gardening
- ◆ Agroforestry
- ◆ Windbreaks & shelterbelts
- ◆ Riparian buffers
- ◆ Grassland management; holistic management
- ◆ Plant communities / Indicator plants
- ◆ Orchards
- ◆ Sustainable woodland management
- ◆ Guilds and other ways of looking at plant co-operation

5.4 Growing and sourcing your food.

Growing Your Own

A minimum of 4 of the following topics should be covered in detail and all of them mentioned:

- ❖ polycultures – why & how
- ❖ permaculture and organic gardening
- ❖ bed creation
- ❖ seasonal planning
- ❖ food preservation
- ❖ field scale strategies
- ❖ designing broadscale agriculture
- ❖ hugelkultur and Sepp Holzer's work
- ❖ livestock / animals in the system e.g. holistic management, mob grazing

Purchasing and sourcing your food:

A minimum of 4 of the following topics should be covered:

- Studying and designing input-output cycles
- Localisation of purchasing & supply
- Ethical and organic choices
- Carbon and ecological footprints of food choices
- Transport, packaging, chemical additions, affordability, nutritional quality

5.5 Built environment

A minimum of 5 of the following topics should be covered at a level of detail appropriate to the needs of the group:

Recommended topics:

- ◆ Contribution of homes & buildings to personal and national carbon footprints
- ◆ Ecological buildings and structure (e.g. local materials, U value, thermal mass)
- ◆ Retrofitting
- ◆ Buildings & the home
- ◆ A Pattern Language & the Timeless Way of Building
- ◆ Energy Management, behaviour change and structure/technology changes
- ◆ Urban permaculture
- ◆ Transport priorities
- ◆ Renewable energy sources and management
- ◆ Energy efficient planning in the urban context (zones, sectors, elevation etc).
- ◆ The planning process

5.6 Resource use:

Physical / ecological resources:

- types of resources we can use
- ecological footprints

- consequences of the choices we make

Personal / human resources:

- Personal asset assessment – knowing your own value
- Setting future learning – recognise where you can strengthen your design capability

5.7 Social systems/contexts:

A minimum of 5 of the following topics should be covered at a level of detail appropriate to the needs of the group:

- ◆ Zone 00: health & wellbeing, personal resilience e.g. (e.g. Non-violent communication, Work that Reconnects, healthy diet, Herbal Medicine, Conflict Resolution)
- ◆ The importance of vibrant, well-connected community (4 generations model, transition towns etc.)
- ◆ Finance & economics (e.g. real wealth, money and alternatives,)
- ◆ Land tenure & community governance
- ◆ Culture & education (including learning from nature)
- ◆ Communication skills
- ◆ Decision making (e.g. consensus) & Sociocracy

5.8 Visit site(s) which exemplify permaculture principles.

It is highly recommended that a site visit to an established permaculture project is included in the course, if the venue(s) is(are) not such a demonstration of permaculture in practice.

- ★ Ideally a LAND centre

If a site visit is not possible then audiovisual material should be used to enable students to see examples of established permaculture projects.

6. Next Steps & Further Information

- ◆ Introduction to the Permaculture Association (Britain) and why/how to become a member.
- ◆ Certificate (2 designs) or Diploma (10 designs) in Applied Permaculture Design
- ◆ Establishing/linking with local groups
- ◆ Further learning goals: e.g. Training of Teachers courses; Advanced design courses; reading and viewing lists; etc.
- ◆ Developing your own project(s): e.g. LAND Centres.
- ◆ Identifying allies
- ◆ Setting up action learning guilds/peer support groups- next steps in the permaculture pathway

7. Feedback

Course participants should be given regular opportunities to give feedback about the course to the tutors.