



## Permaculture Design Course: Core Curriculum V5.0 (March 2022)

# 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.<sup>1</sup>

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 latest review is in light of equity<sup>1</sup> considerations. We have updated the curriculum to better reflect the world we live in now. It has been reviewed by external equity partners and the EWG and was opened for consultation by education members between Oct 21-Jan 22. For ease of reading, new changes for March 2022 in light of equity considerations are highlighted in pink.

*Teachers are encouraged to incorporate a variety of opportunities for engaged learning experiences where learners explore not just the issues, problems and historical causes of injustice, inequality and exclusion as they relate to the course content - but are also encouraged to share personal stories,*

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<sup>1</sup> \*Equity refers to : The intentional and continuing practice of changing policies, practices, systems and structures with the aim of ensuring that everyone has access to the same opportunities. Equity recognises that advantages and barriers exist in society e.g. in getting access to land, housing, finance or in equal treatment in education, healthcare - and this means not everyone is starting from the same position . Factors that lead to such barriers might include (but are not limited to) colour, race, ethnic origin, creed, age, disability, illness, mental health status, neurodiversity, gender, care responsibilities, class, educational experiences, sexual orientation, employment status or sub-culture. People often face discrimination based on more than one aspect of their identities or activities. Equity means taking actions to allow everyone the same opportunities. This may mean giving some people more than others, to make up for the fact that they are starting from different places. This is different from equality where everyone is treated the same (which doesn't address the issue of unequal starting points).

*reflections and feelings that arise around these issues - including the joy, solidarity, inspiration and empathy that arises when people come together to be part of the solution.*

*In 2022, PAB is working with Colab to develop a specific programme on Power and Permaculture which will help educators and learners better understand justice, equity, diversity and inclusion and why they are key for permaculture as well as how to bring them about. Updates will be made available in the Education section of the member area. A further resource on [Justice, equity, diversity and inclusion](#) has been developed as part of the Erasmus funded BLAST programme*

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, there are carefully considered recommendations for certified teachers that we recommend all teachers follow [on this page](#). You can also access resources through your Educators membership and attend continuous professional development (CPD) meetings, referred to as Monthly Online Gatherings (MOGs).

Monthly Online Gatherings (MOGs) will focus on empowering all, inclusion and power amongst other great facilitation methods for both online and face to face teaching. The 2021 Education report also has more resources to support your development competencies as an educator. You can find inspiration in the resources provided in [Permaculture Teachers' Guide](#) and [Teaching Permaculture Creatively](#). We highly recommend attending a training of teachers course (TOT). The Education Working Group 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.

<sup>1</sup> 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.

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

**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?

For example: 'A design process based on understandings of how nature works : helps design intelligent systems which meet human needs whilst enhancing biodiversity, reducing our impact on the planet, and creating a fairer world for us all.' (Permaculture Association Britain, 2021).

- ❖ Permaculture as an approach to designing systems which meet human and ecological needs.
- ❖ A brief history and evolution of permaculture, and from an equity perspective to include:
  - Indigenous influences on the roots of permaculture
  - Recognising the role of women in the history and evolution of permaculture

➤ Recognising that permaculture is practiced by diverse communities all over the world and is continually evolving

❖ 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, and from an equity perspective to include:

➤ Human needs in addition to basic needs, for example: health including psychological, social, resilience, safety, confidence

❖ Fair Shares ("setting limits to population and consumption", "redistributing the surplus" or "future care") and from an equity perspective to include:

➤ Including the difference between equity and equality from the above definition (and for more on this see this optional resource:

<https://www.permaculture.org.uk/equity-and-permaculture-association>)

*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, holistic care, wellbeing, governance
- ❖ 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:

- ❖ Food security and nutrition
- ❖ 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
- ❖ Alternatives to shops: farm stalls, Community Supported Agriculture (CSA's), pick your own, veg boxes

## 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, including the local social, economic and equity context
- ❖ 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:

★ For many of the topics covered from social systems; power, privilege and equity should be considered as central to the teaching.

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, 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
- ❖ Urban, suburban and rural social, economic and equity contexts
- ❖ Work that Reconnects

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. Projects and 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.

Thanks!

The Permaculture Design Course: Core Curriculum V5, has been produced by the Education Working Group of the Permaculture Association.

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