

Permaculture Designers Course Curriculum

MODULE 1: SUSTAINABLE LIVING THROUGH PERMACULTURE:

Sustainable Living 1

A required prerequisite for any other permaculture course. Permaculture is an ecologically inspired energy-conscious way to design satisfying living arrangements that are sustainable. In this class, the design principles of permaculture are explained, observed and illustrated in a series of breakout sessions at a house and garden remodeled to reflect permaculture sustainability principles. Students should be prepared to walk about an urban garden and should have clothing appropriate for the weather.

- Class Length: 4.0 hrs
- Location: Home garden

Sustainable Living 2

A required prerequisite for any permaculture course except for Sustainable Living 1. In this classroom presentation, we further explore the use of principles demonstrated in the previous class. We begin to design home sites using permaculture design principles. These connect and integrate food with housing and nature. We also explain the permaculture approach to sustainability and the series of classes we use to teach it, as well as how students can get the international Permaculture Designer's Certificate.

Class Summary

- Introduction to permaculture (100 min)
- Permaculture classes and the Permaculture Designer's Certificate (40 min)
- Break (10 min)
- Mapping & placement (60 min)
- Break (10 min)
- Designing with permaculture principles, group break out and design presentations (80 min)
- Class Length: 5.0 hrs
- Location: Classroom

MODULE 2: DESIGNING BOUNTIFUL GARDENS THROUGH PERMACULTURE

Sustainable Living 1 & 2 are prerequisites for any part of this module.

Bountiful Gardens focuses on the design of family gardens in the community context, as part of a house or farm. Later in the course we learn some basic gardening skills, and design and build a garden, but first we survey the permaculture of vegetables, fruits, domestic animals and the factors we use to place these for maximum productivity and minimum labor. Water, soil, pest management, garden ecology and climate are also featured. Catered vegetarian lunches are provided for classes lasting all day.

Class 1: The Permaculture of Food Gardening

Our area consumes 17,000 tons of food a day using huge amounts of energy. To be sustainable, every society needs to minimize the amount of food produced far from where people live or with supplies and equipment produced far away. This class is an overview of local vegetable and fruit production, how to learn more about production, explains the relative superiority of tree crops, and examines how to use nature to control pests.

Class Summary

- Pests, beneficial critters, & eco pest management (75 min)
- Permaculture and veggies (65 min)
- Break (10 min)
- Overview of gardening (30 min)
- The permaculture of fruit trees (90 min)
- Class Length: 4 hrs, 30 min
- Location: Classroom

Class 2: Soil, Water and Animals

Bountiful gardens depend on bountiful soil. This class focuses on how earth slope, soil, animals and plants interact to produce bounty. The science of this is explained so that anyone can understand it.

Class Summary

- Key line designs for contoured & flat land (60 min)
- Animals in the landscape (30 min)
- Nitrogen and other cycles (30 min)
- Break (10 min)
- Cation exchange and soil chemistry (50 min)
- Break (10 min)
- Organics, the soil food web and the foundation of life (50 min)
- Class Length: 4.0 hrs
- Location Classroom

Class 3: Garden Design for Climate & Weather

Permaculturists have long been expecting the world's climate system to become unhinged and create havoc for both food production and the energy budget of buildings. Energy and materials costs will escalate as efforts to combat greenhouse gases intensify. This class examines both normal weather and climate and touches on its destabilization. The focus is on how to have bountiful gardens despite weather chaos.

Class Summary

- World ecosystems and garden plants (95 min)
- Break (10 min)
- Climate (75 min)
- Break (10 min)
- Plants, seasons, climate & microclimate (50 min)

- Class Length: 4.0 hrs
- Location Classroom

Class 4: Designing Bountiful Gardens Through Permaculture

Bountiful gardens need to be carefully designed so that everything in the landscape and community including roads and buildings benefit other elements in the landscape in as many ways as possible. Permaculturists use natural patterns and groupings, as well as community to increase the garden's bounty.

Class Summary

- Using edge and pattern in the landscape (60 min)
- Bioregional organizing for sustainable food: farmers markets, co-ops, community gardening, slow cooking (30 min)
- Break (10 min)
- Using plant guilds in design (60 min)
- Break (10 min)
- Breakout sessions: designing a garden (70 min)
- Class Length: 4.0 hrs
- Location Classroom

Class 5: Hands On Gardening Skills

This class takes place at the Animal Farm Permaculture Center in Cat Spring. It provides small group, partially hands-on learning experiences in putting rainwater and irrigation where it is wanted, in planting trees and pruning fruit trees, in building garden beds from free materials and planting seeds and transplants. A vegetarian lunch is provided. (Animal Farm is approximately 2 hours west of Houston)

Class Summary

- Earthworks and the garden (90 min)
- Breakout on swales/slope, irrigation, planting a tree (90 min)
- Lunch (60 min)
- Sheet mulching, transplants & seeds, pruning a tree (180 min)
- Breaks (30 min)
- Class Length: 8.0 hrs
- Location: Animal Farm

Class 6: Garden Design and Build

This class takes place at the Animal Farm Permaculture Center in Cat Spring. It provides small group hands-on learning experiences in designing a garden and getting one started. This is a physical labor class whose design component will be most useful if you have taken most or all of previous bountiful gardens classes. An excellent lunch is provided.

Class Summary

- Looking at potential garden sites— breakout groups (180 min)

- Lunch (60 min)
- Design work, presentations & choosing a site (150 min)
- Construction (120 min)
- Class Length: 8.0 hrs
- Location: Animal Farm

MODULE 3: DESIGNING OUR GREEN HOMES & COMMUNITIES THROUGH PERMACULTURE

Sustainable Living 1 & 2 are prerequisites for any part of this module.

In a world of peak oil, rapidly rising energy and materials prices, and increasing climate protection measures, it is essential that our homes and communities change as quickly as possible. This course helps us get there. Designing Our Green Homes and Communities is one of five modules in the permaculture design certificate course, and is open to anyone who has completed Module 1: Sustainable Living Through Permaculture. **No city planning, engineering or architectural knowledge is assumed.**

Class 1: Smart Communities

In this class we look at organizations that promote sustainable communities worldwide and in Texas. Topics covered are: land development, smart growth & alternative transit, , transition initiative, co-housing & Texas initiatives.

Class Summary

- Land development, smart growth & alternative transit (90 min)
- Transition initiative (30 min)
- Break (10 min)
- Student introductions (20 min)
- Co-housing and Texas initiatives (30 min)
- Water supply (60 min)
- Class Length: 4.0 hrs
- Location: Classroom

Class 2: Urban Ecohouse Tours

This class includes an informative guided tour of two homes. One is an affordable new house and the other is retrofitted to reduce fossil energy use.

Class Summary

- Urban ecohouse tours
- Class Length: 4.0 hrs
- Location: Houston area

Class 3: Bioregional Organizing, Alternative Economics and Design for Disasters

This class includes the subjects of bioregional organizations for sustainable communities, alternative economics, pest control and designing for disasters.

Class Summary

- Bioregional organizations for sustainable communities (30 min)
- Alternative economics (60 min)
- Break (15 min)
- Household pests (15 min)
- Placing the house and design for disaster (60 min)
- Class Length: 3.0 hrs
- Location: Classroom

Class 4: Renewable Energy & Natural Building

In this class we look at a number of important support features particularly valuable for rural structures. These factors include water supply and purification, renewable energy and using local and natural resources for building.

Class Summary

- Mapping & placement (50 min)
- Water supply & natural purification (60min)
- Renewable Energy (120 min)
- Break (10 min)
- Natural building (60 min)
- Class Length: 5.0 hrs
- Location: Classroom

Class 5: The Urban Ecohouse

In this class, we look at various features of the urban ecohouse. We discuss climate control, building new ecohouses and retrofitting old ones. We finish the day working on small group designs of sustainable housing..

Class Summary

- Climate and the ecohouse (60 min)
- Eco architecture (90 min)
- Integral urban home concept (30 min)
- Hands on designing the eco-house in small groups (60 min)
- Class Length: 4.0 hrs
- Location: Classroom

Class 6: Hands On Renewable Energy and Natural Building

This class is at a location about 90 minutes west of Houston at Animal Farm Permaculture Center. Carpooling is strongly encouraged. There will be a vegetarian lunch provided. The day starts with an inspiring talk on building community and then we spend the bulk of the day installing a solar energy set-up hands on and natural building.

Class Summary

- Building community neighborhood by neighborhood (120 min)
- Lunch (60 min)
- Hands on Renewable Energy (240 min)
- Class Length: 7.0 hrs
- Location: Animal Farm

Class 7: Tomorrow's Ecovillages and Sustainable Communities

Our last class in this module, we will focus on Ecovillages, Cohousing and Sustainable Communities. It is through these intentional communities that sustainable living prospers, transit emphasizes energy conservation and people get more out of less. Much of the day will be devoted to learning to design such communities.

Class Summary

- Building community neighborhood by neighborhood (90 min)
- Lunch and tour of ecovillage site (120 min)
- Urban ecovillage design practicum in small groups (150 min)
- Class Length: 6.0 hrs
- Location: Classroom & Ecovillage

MODULE 4: RESTORING NATURE THROUGH PERMACULTURE DESIGN

Sustainable Living 1 & 2 are prerequisites for any part of this course.

No ecological or nature training is assumed.

In a world of peak oil, rapidly rising energy and materials prices, and increasing climate protection measures, it is essential that our homes and communities change as quickly as possible. **No city planning, engineering or architectural knowledge is assumed.**

Class 1: Ecosystems

Our first session in the classroom focuses on some basic ecology and looks at the broad questions about nature and the threats to it. We then look at trees and forests—remarkable communities of plants and animals that act as our planet's lungs and kidneys.

Class Summary

- Ecology, restoration ecology and deeper ecology (150 min)
- Introductions & breaks (30 min)
- Trees, forests, water and energy (120 min)
- Class Length: 5.0 hrs
- Location: Classroom

Class 2: Texas Ecosystems

Our focus this time is on our own state's ecosystems. We also look at our prairies and wetlands.

Class Summary

- Texas ecosystems (180 min)
- Breaks (30 min)
- Prairies & wetlands (90 min)
- Class Length: 5.0 hrs
- Location: Classroom

Class 3: Restoring Nature

Our second session is at a natural area. By walking around with a knowledgeable guide, we learn how to observe nature using the permaculture perspective. We also look at ways a former eyesore has been restored to a wonderful place of natural beauty. Restoration could not take place without bioregional organization, so we study the permaculture of that too.

Class Summary

- Local bioregional organizing to rebuild nature (60 min)
- Lunch & restoring a creek bed project discussion (60 min)
- Observations and nature (240 min)
- Class Length: 6.0 hrs
- Location: Houston natural area

Class 4: Restoration Project

Our last session will be at a local natural area and will be devoted to restoring a habitat feature. Be sure to get the list of how to dress and what to bring. Be prepared to get dirty and have fun.

Class Summary

- Designing a restoration (150 min)
- Lunch & breaks (60 min)
- Hands on restoration (270 min)
- Class Length: 8.0 hrs
- Location: Houston natural area

MODULE 5: DESIGN PROJECT – TUTORIAL, PRESENTATION AND GRADUATION

In this class, students who have completed all of the other modules are invited to design a project (maximum 8 – 10 hrs preparation) by consulting with a Guild teacher, researching and preparing and then presenting to a group of students and teachers at a graduation party. By taking this module, the student is able to judge whether they have learned the criteria set out by the teachers for their design. It allows the student to see what fellow students have designed, providing opportunities for sharing ideas and expanding learning possibilities. One or more alternative dates are set each year to accommodate students and instructors.

Class Summary

- Tutorial explanation (2 hr)
- Graduation (6 hr)
- Length of class: 8.0 hrs
- Location of class: TBD

USEFUL INFORMATION

Text Support

There is not a required text in this Permaculture Designers Certification Course. It is suggested that you review our permaculture resources page and read supporting material, as you progress through the classes.

The Permaculture Guild of Houston

The Permaculture Guild of Houston is a group of certified permaculture design graduates, who participate as instructors for the course, as well as offer support to student design projects. Guild members are not full time permaculture instructors. The instructors in this course are not all trained teachers, though many of them have substantial backgrounds in the topics they teach. It is believed by permaculturists that anyone with adequate training should be teaching permaculture.

Field Trip Weather Issues

There is not a practical way to reschedule classes, therefore classes are very rarely cancelled due to bad weather. In case of cancellation, we offer a rain check to attend the class free the following year. We try to wait as long as possible before canceling. You should know whether we will cancel about three hours before the start of a class. You can call the class facilitator's cell number to inquire. For the classes held in town, it is easier to find out the weather and traffic. The temperatures are often 5-10 degrees cooler and drier, when going to Animal Farm, which is much further west. Therefore, you should bring rain gear, sun gear or cold gear if there is any chance you might need it.