

Course Outline

Sustainable Urban Beekeeping Certificate | Coordinator: Peggy Harowitz

Bee Conservation and Bee Garden Design (BEEP1005)

Instructor	Brian Campbell
Hours	8.5 hours total – combining 6 hours lecture and 2.5 field experience
Grading	Pass/Fail

Course Description

The foundations of bee health are habitat and forage. Understanding these two things empowers us to take action to conserve bees in ways that are meaningful, purposeful and with good result. This course covers the natural history of our native bees, what they need and how we can provide for them in well-designed attractive urban gardens. Bees aren't just about abundance, pollinating fruit trees and vegetables, or only about the ecological impacts of their pollination services. Bee gardens are full of life and beauty, are safe for children and welcoming to all.

No prerequisites are required.

Learning Outcomes

Upon successful completion of this course, the student should be able to:

- Analyze gardens from the perspective of what bees need
- Identify key elements of good garden design
- Explain the foraging behaviour of bees
- Select plants suitable for conventional gardens that are also excellent sources of pollen and nectar
- Identify nesting and building material for bees
- Define pollination and relate this to bee behaviour in the garden
- Recognize three major bee families
- Distinguish between flies, wasps and bees
- Describe the natural history and life cycles of native bees
- Describe the nesting styles and requirements of native bees
- Identify 12 plants that bees need for forage or nesting
- Evaluate a site for its suitability for bees
- Identify where bees may be nesting
- Set up bee nests
- Demonstrate how to plant flowers and sow seeds

BEEP 1005 Course Outline

Detailed Course Content, Topics and Sequence Covered:

- Ecological impacts and issues in beekeeping
- What is a bee?
- Introduction to native bees, lifecycles, natural histories, needs
- Introduction to Patch Dynamics
- How to use Patch Dynamics to understand bee foraging behaviour in an urban setting
- Simple techniques to increase pollinator diversity and conserve bees

Designing bee gardens Field Experience

- Key elements in garden design
- What bees need, applying principles of Patch Dynamics
- Site analysis
- Plant selection
- Establishing the garden

Hands on: Designing a garden

Method of Delivery

6 hours in-class. 2.5 hours field experience

Evaluation Criteria And Grading

Evaluation for this course is on a pass/fail basis.
Field Experience – 50%
Participation - 50%

Reading

Attracting Native Pollinators: Protecting North America's Bees and Butterflies, Xerces Society, Story Publishing, Portland, USA

Instructor Profile

Brian Campbell, the lead instructor, is the founder of Blessed Bee Apiaries and the Bee School. He became immersed in the rich and amazing world of bees while he and his four sons spent many a glorious day observing the curious activities of bees, noticing the bees' consistent patterns, collective activities, and the surprising comparisons to our own human patterns and behaviours. He is a Certified Beemaster and beekeeper, and heavily involved in food security issues in Richmond and the Lower Mainland.

Brian guest lectures for UBC Farm's Practicum in Sustainable Agriculture, for adult education at VanDusen Botanical Gardens in Vancouver, for Kwantlen's Richmond Farm School and teaches young people in the city about honeybees as well as native types. He is a former president of the Richmond Beekeepers Association, a member of the Master Gardener Association of BC, Sustainable Gardening and Bee Master to West Coast Seeds, and offers classes in grafting fruit trees, food preserving and other farm skills.