



# Practical Beekeeping Syllabus Winter / Spring 2024

## **SESSION 1: February 20--Beekeeping Basics, Equipment & Clothing**

7:00 - 7:25 Welcome—

Sam Hamlin, Bee School Chairman and Kathy Balestrier, ECBA President

- Introduction, class logistics and announcements
- Discussion of course syllabus and course materials
- Mosquito Spraying Opt Out

7:25 – 8:00 Lesson 1-1: Honey Bee Basics—Ellen Garvey

- Key details of honey bees

8:00 – 8:15 BREAK & QUESTIONS

8:15 – 8:45 Lesson 1-2: Understanding the Modern Beehive—Chris Delaney.  
*Beekeeping Basics, Pages 7-10*

- Components of the Modern Beehive

8: 45 – 8:55 Lesson 1-3: Beekeeping Equipment—Stéphanie Williams  
*Beekeeping Basics, Pages 11-12*

- Protective clothing for working with bees
- Tools for working with bees

8:55 – 9:00 Announcements, Q & A, Raffle & Evaluation

**Next week's class starts at 6:30**

**\*\*Read Beekeeping Basics Pages 9-11, 19-20\*\***

**\*\*and Appendix E for next week's class\*\***



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## **SESSION 2 : February 27--Beekeeping Supplies : Bees, Equipment, Hives. Mentoring**

6:30 – 6:45 Announcements, Questions & Discussion

- Local and on-line order suppliers

6:45 – 7:15 Lesson 2-1: Ordering Bees—Pete Delaney  
*Beekeeping Basics, Pages 13-17, 19-20*

- Package Bees vs Nucleus Colonies

7:15 – 7:45 Lesson 2-2: Ordering & Assembling Equipment—Pete Delaney  
*Beekeeping Basics, Pages 7-10*

- Assembling hive bodies

7:45 – 8:00 BREAK & QUESTIONS

8:00 – 8:30 Lesson 2-3: Boxes, Frames and Foundation—Joe Gaglione  
*Beekeeping Basics, Pages 7-10*

- Frames, wood & plastic
- Wax and wire; wax on plastic; BetterComb
- Wiring the frame
- Embedding the wire

8:30 – 8:45 Lesson 2-4: Mentoring—Mike Garvey

- Importance of having a support team
- Range of support options
- Benefits of having a mentor
- Introduction of mentors

8:45 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 7:00**

**\*\*Read Beekeeping Basics Pages 13-19, 23, 24, 27-30, 39-40\*\***



# Practical Beekeeping Syllabus

## Winter / Spring 2024

### **SESSION 3: March 5—Installing Packages, Spring and Summer Management, Calendar and Recordkeeping**

7:00 – 7:05 Announcements, Questions & Discussion

7:05 – 7:50 Lesson 3-1: Installing Package Bees—Joe Gaglione  
*Beekeeping Basics, Pages 13-19*

- When the package arrives
- Hive preparation
- Installing bees
- Installing the queen
- Feeding the newly installed bees

7:50 – 8:20 Lesson 3-2: Spring & Summer Mgmt of a New Colony, The First Year  
-Pete Delaney  
*Beekeeping Basics, Pages 23-24, 27-30*

- Work as the season progresses

8:20 – 8:35 BREAK & QUESTIONS

8:35 – 8:50 Lesson 3-3: Beekeeping Calendar & Recordkeeping—Kaitlyn Stanhope  
*Beekeeping Basics, Pages 39-40*

- How to record your colonies' status and progress
- Find the style that works for you

8:50 - 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 7:00**

**\*\*Read Beekeeping Basics, Pages 2-6, 20-22 for next week's class\*\***



# Practical Beekeeping Syllabus Winter / Spring 2024

## **SESSION 4: March 12—Apiary Set-up, Bee Culture & Bee Biology**

7:00 – 7:05 Announcements, Questions & Discussion

7:05 – 7:30 Lesson 4-1: Setting up an Apiary—Geoff Neale  
*Beekeeping Basics, Pages 20-22*

- Location, Location, Location!
- Shelter concerns
- Solar concerns
- Topographical concerns
- Human & Animal habitation concerns
- Good Neighbor policy

7:30 – 7:55 Lesson 4-2: Understanding Honey Bee Behavior—  
Geoff Neale & Larry Connors  
*Beekeeping Basics, Pages 2-6*

- Honey Bee Development
- Castes
- Communication-briefly von Frisch but mainly pheromones and queen's role
- Division of Labor
- Life Cycle (Bee Math)

7:55 – 8:10 BREAK & QUESTIONS

8:10 – 8:50 Lesson 4-3: Understanding the Life Cycle of the Honey Bee and Colony  
Organization—Geoff Neale and Larry Connors

- Bee Math Review-Practical Applications
- Why we need to know these timing factors
- Queen and primary swarm emergence
- Brood presence (or not) for treatment efficacy
- Put in practice (I have capped brood, but no eggs....)
- Other Stinging Insects

8:50 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's optional topic starts at 6:30**

**\*\*Read Beekeeping Basics Pages 25-26 and 31-39 for next week's class\*\***



# Practical Beekeeping Syllabus Winter / Spring 2024

## **SESSION 5: March 19--Management of Overwintered, Established Hives**

6:30 - 7:00 Optional: Alternative Beehives—Kathy Gallucci

- Bee Hive styles that differ from traditional Langstroth hives recommended in this course

7:00 - 7:05 Announcements, Questions & Discussion

7:05 – 7:55 Lesson 5-1: Fall and Winter Management—Joe Gaglione.  
*Beekeeping Basics, Pages 31-39*

- Evaluating colony condition & population
- Evaluating food stores
- Feeding colonies
- Protecting colonies from the elements
- Requeening a colony

7:55 – 8:10 BREAK & QUESTIONS

8:10 – 8:50 Lesson 5-2: Management of Overwintered Hives—Rick Reault  
*Beekeeping Basics, Pages 25-26, 39*

- Late Winter inspection of food stores
- Early Spring inspection of food stores
- Spring evaluation and inspection
- Swarm prevention

8:50 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 6:30**

**\*\*Read Beekeeping Basics, Appendix D and pages 41-61, 94-97 for next week's class\*\***



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### **SESSION 6: March 26--Pests and Disease**

6:30 – 6:35 Announcements, Questions & Discussion

6:35 – 6:45 Lesson 6-1: Learning through Organizations and Bee Associations  
-Kathy Balestrier.

*Beekeeping Basics, Appendix D, Pages 94-97*

- Websites
- Organizations & Sources of Information

6:45 – 7:20 Lesson 6-2: Bee Pests, Parasite and Diseases—Bill Hamilton

*Beekeeping Basics, Pages 54-61*

- Animal pests
- Comb damaging moths
- Minor insect pests; yellow jackets
- Small hive beetles

7:20 – 7:35 BREAK & QUESTIONS

7:35 – 8:50 Lesson 6-3: Identifying & Controlling Honey Bee Diseases—Bill Hamilton.

*Beekeeping Basics, Pages 41-54*

- Brood diseases
- Fungus diseases
- Viral diseases
- Non-infectious diseases
- Chilled brood
- Adult honey bee diseases
- Proper use of medications
- What do the numbers mean?

8:50 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 6:45**

**\*\*Please read Beekeeping Basics Pages 48-53, 80-81, 93 for next week\*\***



# Practical Beekeeping Syllabus

## Winter / Spring 2024

### **SESSION 7: April 2: Pollination & Nectar Sources, Mite Treatments**

6:45 – 6:50 Announcements, Questions & Discussion

6:50 – 7:20 Lesson 7-1: State Apiary Laws, Regulations and Inspections  
-Rhys Willette, MDAR Apiary Inspector.

- Apiary Inspector
- State Beekeeping Laws

7:20 – 7:40 Lesson 7-2: Needs of Honey Bees—Kathy Balestrier.  
*Beekeeping Basics, Pages 80-81*

- Nectar, Pollen, Propolis and Water as life sustaining materials
- Forage plants
- Nectar & Pollen producing plants useful to honey bees
- Evaluation of your apiary for honey bee forage

7:40 – 7:55 BREAK & QUESTIONS

7:55 – 8:50 Lesson 7-3: Mite Treatments—Mike Garvey

- Treatments are complex: depend on temperature, season & colony status
- Effective treatment is key to colony survival
- Varroa mites
- How to do an alcohol wash (Demonstration)
- Integrated Pest Management (IPM)

8:50 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 6:15. Begins with demonstration of bee package installation. Veil required to observe closely**



## Practical Beekeeping Syllabus Winter / Spring 2024

### **SESSION 8: April 9: Installing a Package of Bees, Working the Honey Bees, Harvesting and Processing the Honey Crop**

6:15 – 6:20 Announcements, Questions & Discussion

6:20 – 6:50 Lesson 8-1: Live Bee Package Installation—Rick Reault

- Location on Fair Grounds. Bring protective veil or suit.

6:50 – 7:20 Lesson 8-2: Working with Honey Bees—Julie Crocker  
*Beekeeping Basics, Pages 39-40*

- Equipment for the work
- Procedure for the work
- Purpose for the work

7:20 – 7:45 Lesson 8-3: Review of Package Installation—Rick Reault

- Storing and spraying bees before installing
- Opening package
- Shaking out bees
- Installing queen

7:45 – 8:10 Lesson -4: Reading A Frame—Mike Garvey

- What is normal? what is not? and what to do?
- What you expect to find where in the hive
- Understanding brood, food and stores
- Finding the queen

7:55 – 8:10 BREAK & QUESTIONS

8:10 – 8:50 Lesson 8-5: Harvesting & Processing the Honey Crop—Cindi McDermott  
*Beekeeping Basics, Pages 62-72*

- Mechanical methods for removing bees from supers
- Chemical methods for removing bees from supers
- Equipment for extracted honey production
- Processing extracted honey
- Processing cut-comb honey
- Processing comb honey

8:50 – 9:00 Announcements, Q & A, Raffle & Evaluations

**Next week's class starts at 6:30**

**\*\*Please read Beekeeping Basics, Pages 23-24 for next week\*\***



# Practical Beekeeping Syllabus

## Winter / Spring 2024

### **SESSION 9: April 16: Smoker Lighting, Hive Inspection, History**

6:30 – 6:35 Announcements, Questions & Discussion

6:35 – 7:05 Lesson 9-1: Lighting Your Smoker—Geoff Neale

- Fuel
- Timing

7:05 – 7:55 Lesson 9-2: Virtual “Hive Inspection“ Geoff Neale

- Opening a hive
- Removing supers
- Checking for eggs and brood
- Looking at queen cells
- Hunting for the queen

7:55 – 8:20 Lesson 9-3: Surveying the History of the Beehive—Mike Garvey

- Ancient beekeeping
- Arrival of honeybees in the US
- Development of Langstroth hive

8:20 – 8:35 BREAK & QUESTIONS

8:35 - 9:00 Graduation