



Midwest Master Beekeeper Program Requirements Manual

The Midwest Master Beekeeper Program (MMBP) is a training and certification program provided by this nonprofit and charitable organization.

The program begins with a Beginning Beekeeper level for people who are just getting started and advances through five additional levels. All participants must enter the program at the Beginning Beekeeper level, but experienced beekeepers are permitted to skip levels by passing written and practical examinations and serving as a mentor to less experienced beekeepers. There is no age limit for entry into the program, though the examinations may be too difficult for children under 12 years of age.

The six levels of training and advancement are Beginning Beekeeper, Apprentice Beekeeper, Journeyman Beekeeper, Junior Master Beekeeper, Master Trainer Beekeeper and Certified Master Beekeeper. Each level takes at least one full year to complete. Opportunities for advancement in the program only occur on exam days after all requirements for acceptance into the next level have been met.

The MMBP trains and educates beekeepers on new techniques, equipment, potential problems, and tips and tricks to improve their beekeeping skills. Participants serve as bee ambassadors to beginning beekeepers, the public and their communities by teaching and serving as MCHF volunteers, and may later choose to work as paid independent consultants.

Program board

A program board administers the MMBP. Members of the board provide training for program participants, develop educational materials used in the program, create and administer certification exams, and oversee all logistical components of the program. The members of the board are:

Moneen Jones, entomologist and MMBP Director, MidwestMBCP@gmail.com

Jay Heselschwerdt, TN State Apiarist
thebeemanjay@gmail.com

Rich Wilson, OD, FAAO, Missouri Journeyman Beekeeper
RWilson@bso-ae.com

Mike Crawford, Kentucky beekeeper & President of the Northeast KY Beekeepers Association, queen breeder

mike@crawfordsbeefarm.com

Scott Carter, Illinois Beekeeper, huntfish48@gmail.com

Jason Foley, Owner, Foley's Russian Bees, Iowa
foldog21@yahoo.com

Patrick Edwards, Preppers Bee Supply, Arkansas
orders@prepperbeesupply.com

James Rhein, Arkansas Beekeeper for 35 years.
lsjrhein5@yahoo.com

Program participants should keep the MMBP director informed of any changes to their mailing address, email address or phone number in case there is a need to contact them during their enrollment. If at any point a participant wishes to discontinue the program, he or she should contact the MMBP director.

Examinations

Examinations are offered twice a year, in the spring and fall. The exam dates are announced on the MMBP website, <http://midwestmasterbeekeeper.org>. Written examinations for all ranks are held in the morning followed by a practical examination in the afternoon for Apprentice and Journeyman Beekeeper candidates. Results will be sent to exam takers within two weeks of the testing date.

Required documentation of volunteer hours, public service credits, etc. must be submitted to the MMBP director four weeks prior to the exam day (see Appendix H). Only candidates who have completed all the requirements for advancement will be permitted to take the exams.

The exams are held at an individual's home via an online test site and webcam monitoring. Examinations are held at 3 month intervals. (See Appendix C for more examination information.)

Requirements for each level

Participants must meet certain requirements to advance through the Master Beekeeper Program. Following at least one year of experience at a level, a candidate can take an exam to become certified at that level. The exam is not required if a participant does not wish to continue advancing through the ranks. The requirements for each level are listed below and are summarized in Table 1. Additional program information is provided in Appendix H.

I. Beginning Beekeeper

To achieve the rank of Beginning Beekeeper, the candidate must complete the following requirements:

- A. Be a registered beekeeper in a local association of their choosing, either as an individual or as a member of a family.
- B. Attend a Basic Beekeeping for Beginners course.
- C. Be a practicing beekeeper for at least one year.
- D. Spend and document eight hours working with an experienced beekeeper mentor over the course of a year. See Appendix A for guidelines and Addendum 1 for the documentation form.
- E. Score 80 percent or higher on a written examination. The written exam can cover, but is not limited to, information taught in MMBP beekeeping classes, Missouri Apiculture Law (RSMO 264.011–264.101; <http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)* and material from literature on the Beginning and Apprentice Beekeeper reading list in Appendix B.

A practicing beekeeper with at least three years of experience can advance through this level by being a registered beekeeper with a local beekeeping association, performing and documenting eight hours of volunteer services as a mentor to less experienced beekeepers (see Appendix A and Addendum 2), and passing the Beginning Beekeeper written examination with a score of at least 80 percent.

II. Apprentice Beekeeper

To achieve the rank of Apprentice Beekeeper, the candidate must complete all of the following requirements:

- A. Have held the rank of Beginning Beekeeper for at least one year and been a practicing beekeeper for at least two years.
- B. Be a registered beekeeper in a local beekeeper association, either as an individual or as a member of a family.
- C. Attend an Apprentice-level beekeeping course.
- D. Spend and document eight hours working with an experienced beekeeper mentor over the course of a year. See Appendix A for guidelines and Addendum 1 for the documentation form.
- E. Score 80 percent or higher on a written examination. The written exam can cover, but is not limited to, information taught in MU Extension beekeeping classes, Missouri Apiculture Law (<http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)* and material from literature on the Beginning/ Apprentice Beekeeper reading list in Appendix B.

*Or their representative state apiary requirements

- F. Score 80 percent or higher on a practical examination. The practical exam can include, but is not limited to, describing the physical parts of a beehive using common terms, not regional nomenclature; lighting and properly using a smoker; recognizing the various stages of brood and the different castes of bees; finding or at least describing the queen; differentiating between brood, pollen and capped honey; recognizing propolis and describing its functions; and describing the layout of a brood nest, including placement of honey, pollen, and brood.

A practicing beekeeper with at least three years of experience who has tested out of the Beginning Beekeeper level can advance through the Apprentice level by being a registered beekeeper with a local beekeeping association, performing and documenting eight hours of volunteer services as a mentor to less experienced beekeepers (see Appendix A and Addendum 2), and passing the Apprentice Beekeeper written and practical exams with a score of at least 80 percent. To expedite advancement, a practicing beekeeper is not required to wait a year between taking the Beginning and the Apprentice exams but may take the Apprentice exams during the next testing period.

III. Journeyman Beekeeper

To achieve the rank of Journeyman Beekeeper, the candidate must complete the following requirements:

- A. Have held the ranks of Beginning Beekeeper and Apprentice Beekeeper one year each and been a practicing beekeeper for at least three years.
- B. Be a registered beekeeper with a local beekeeper association, either as an individual or family.
- C. Attend a Journeyman-level beekeeping course.
- D. Perform and document 16 hours of volunteer service as a mentor to less experienced beekeepers or shadow more experienced beekeepers. See Appendix A for guidelines and Addendum 2 for documentation form.
- E. Show proof of having scored at least 80 percent on each of six computerized honey bee training modules: honey bee pests/parasites/pathogens; honey bee anatomy and behavior; pollination biology; pesticides and honeybees; social wasps and bees; and practical beekeeping. These modules are available online at <http://midwestmasterbeekeeper.org>
- F. Complete and document participation in five public service credits (see Appendix D). The Documentation of Public Service Credits form is only a supporting document and should not be the only evidence of a completed PSC. See Appendixes D and H for documentation guidelines and Addendum 3 for the form.

Table 1. Summary of requirements for the Midwest Master Beekeeper Program.

Level	Registered beekeeper	Class	Written exam	Practical exam	Modules	Volunteer mentoring/ shadowing hours	Public service credits	Major credits	Core credits	Communication skills demonstration
Beginner	X	X	X	—	—	8	—	—	—	—
Apprentice	X	X	X	X	—	8	—	—	—	—
Journeyman	X	X	X	X	6	16	5	—	—	—
Junior Master	X	X	X	—	—	20	3	2	—	—
Master Trainer	X	X	X	—	—	20	3	3	6	—
Certified Master	X	X	X	—	—	20	10	3	6	2
Credits/hours totals	—	—	—	—	—	92	21	8	12	—

- G. Score 80 percent or higher on a written examination. The written test can include, but is not limited to, topics covered in previous MCHF beekeeping classes from this or previous levels, Missouri Apiculture Law (<http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)* and literature on the Beginning/Apprentice and Journeyman Beekeeper reading lists in Appendix B. This exam will cover more information than the Apprentice Beekeeper exam. The testable material will closely adhere to information taught in the computerized honey bee training modules (E above).
- H. Score 80 percent or higher on a practical examination. The practical examination can include, but is not limited to, identifying pests, parasites and pathogens; reading pesticide labels and determining which is the safest to use around bees; identifying several beekeeping items; examining honey labels for errors; distinguishing between bees, wasps, hornets, etc.; and identifying anatomical structures of bees, flowers, etc.

IV. Junior Master Beekeeper

To achieve the rank of Junior Master Beekeeper, the candidate must complete the following requirements:

- A. Have held the ranks of Beginning Beekeeper, Apprentice Beekeeper and Journeyman Beekeeper for at least one year each and been a practicing beekeeper for at least four years.
- B. Be a registered beekeeper with a local beekeeper association, either as an individual or family member.
- C. Attend a Junior Master-level beekeeping course.
- D. Perform 20 hours of volunteer service as a mentor to less experienced beekeepers or shadow more experienced beekeepers. See Appendix A for guidelines and Addendum 2 for documentation form.

- E. Complete and document three additional public service credits beyond those required for the Journeyman Beekeeper level (see Appendix D). See Appendixes D and H for documentation guidelines and Addendum 3 for the form.
- F. Declare a major (see Appendix E), and demonstrate/document expertise in two credits within the major. We refer to these as “major credits.” See Appendixes E and H for documentation guidelines and Addenda 4 and 5 for the forms.
- G. Score 80 percent or higher on a written examination. The written examination can include but is not limited to materials covered during MU Extension beekeeping classes from this or previous levels, Missouri Apiary Law (<http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)*, and material from literature on the reading lists in Appendix B.

V. Master Program Trainer

To achieve the rank of Master Program Trainer, the candidate must complete the following requirements:

- A. Have held the ranks of Beginning Beekeeper, Apprentice Beekeeper, Journeyman Beekeeper and Junior Master Beekeeper for at least one year each and been a practicing beekeeper for at least five years.
- B. Be a registered beekeeper with a local beekeeper association, either as an individual or family member.
- C. Attend a Master Program Trainer-level beekeeping course.
- D. Perform 20 hours of volunteer service as a mentor to less experienced beekeepers or shadow more experienced beekeepers. See Appendix A for guidelines and Addendum 2 for documentation form.
- E. Complete and document three additional public service credits beyond those required for the Junior

Master Beekeeper level (see Appendix A). See Appendixes D and H for documentation guidelines and Addendum 3 for the form.

- F. Demonstrate communication skills (see Appendix G).
- G. Demonstrate/document expertise in three additional credits within the declared major. See Appendixes E and H for documentation guidelines and Addendum 5 for the form.
- H. Demonstrate/document expertise in six credits outside the major. We refer to these as “core credits.” The core credits can be chosen from Appendix F or participants may choose nonoverlapping credits from other majors to fulfill core credits. See Appendixes F and H for documentation guidelines and Addendum 5 for the form.
- I. Score 80 percent or higher on a written examination. The written examination can include but is not limited to materials covered during MU Extension beekeeping from this or previous levels, Missouri Apiary Law (<http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)* and material from literature on the reading lists in Appendix B.

VI. Certified Master Beekeeper

To achieve the rank of Certified Master Beekeeper, the candidate must complete the following requirements:

- A. Have held the ranks of Beginning Beekeeper, Apprentice Beekeeper, Journeyman Beekeeper, Junior Master Beekeeper and Master Program Trainer for at least one year each and been a practicing beekeeper for at least six years.
- B. Be a registered beekeeper with a local beekeeper association, either as an individual or as a family member.
- C. Attend a Certified Master-level beekeeping course.
- D. Perform 20 hours of volunteer service as a mentor to less experienced beekeepers or shadow more experienced beekeepers. See Appendix A for guidelines and Addendum 2 for documentation form.
- E. Demonstrate and document 10 additional public service credits beyond those required for the Master Program Trainer level (see Appendix D). See Appendixes D and H for documentation guidelines and Addendum 3 for the form.
- F. Demonstrate/document expertise in three additional credits within the declared major. See Appendixes E and H for documentation guidelines and Addendum 5 for the form.
- G. Demonstrate/document expertise in six additional credits outside the major. The core credits can be chosen from Appendix F or participants may choose non-overlapping credits from other majors to fulfill core

credits. See Appendixes F and H for documentation guidelines and Addendum 5 for the form.

- H. Score 80 percent or higher on a written examination. The written examination can include but is not limited to materials covered during MU Extension beekeeping classes from this or previous levels, on Missouri Apiary Law (<http://www.moga.mo.gov/mostatutes/ChaptersIndex/chaptIndex264.html>)* and material from literature on the reading lists in Appendix B.

Appendix A

Mentoring and shadowing volunteer hours

Mentoring and shadowing requirements. The Midwest Master Beekeeper Program is built on the dedication, trust and camaraderie of beekeepers. Experienced beekeepers participating in the program are expected to serve as mentors for less experienced beekeepers. More experienced beekeepers will be partnered with less experienced beekeepers (at least two years their junior in experience) to improve the latter’s hands-on knowledge of beekeeping. The less experienced beekeeper will receive credit for shadowing hours and the more experienced beekeepers will receive credit for mentoring hours, both of which are needed to progress through the program. An experienced beekeeper in the program will be partnered with a less experienced beekeeper within two weeks of the latter’s participation in a MMBP class.

Mentoring and shadowing documentation. Beginning and Apprentice Beekeepers must document the hours spent shadowing a more experienced beekeeper on the Documentation of Volunteer Shadowing form (Addendum 1) or, in the case of practicing beekeepers with at least three years of experience who are advancing through these levels, must document the hours spent mentoring less experienced beekeepers on the Documentation of Volunteer Mentoring form (Addendum 2). Journeyman, Junior Master, Master Trainer and Certified Master Beekeepers must document the hours spent mentoring less experienced beekeepers on the Documentation of Volunteer Mentoring form (Addendum 2). For each entry in these forms, briefly describe the specific beekeeping topic covered and indicate the amount of time spent in the activity. To complete each entry, the mentor must sign the trainee’s shadowing form and the trainee must sign the mentor’s mentoring form.

Mentoring and shadowing guidelines. The goal of the mentoring/shadowing partnerships is to increase each beekeeper’s knowledge of beekeeping and ensure

successful progression through this program. Adherence to the following guidelines will help you maintain a positive mentorship relationship.

- Be punctual, trustworthy and reliable. Follow through on your commitments and responsibilities. Call if you will be delayed or need to cancel a planned session.
- Maintain a friendly, warm and courteous attitude toward each other.
- Communicate effectively with each other and with other Master Beekeeper Program participants.
- As a mentor, you are responsible for notifying the MMBP director of any changes in mentorship relationships.

Appendix B

Reading lists

Suggested reading list for Beginning and Apprentice Beekeeper examinations

Books

- *Honey Bees and Beekeeping: A Year in the Life of an Apiary, 3rd Edition.* Keith Delaplane. University of Georgia, 2007.
- *The Beekeeper's Handbook, 4th Edition.* Diana Sammataro and Alphonse Avitabile. Comstock Publishing Associates, 2011.
- *First Lessons in Beekeeping.* Keith Delaplane. Dadant and Sons, 2007.
- *The Backyard Beekeeper, Revised and Updated: An Absolute Beginner's Guide to Keeping Bees in Your Yard and Garden, 3rd Edition.* Kim Flottum. Quarry Books, 2010.
- *Honey Bee Biology and Beekeeping, Revised Edition.* Dewey M. Caron and Lawrence John Connor. Wicwas Press, 2013.

Periodicals

- *American Bee Journal*
- *Bee Culture*
- Missouri State Beekeepers Association newsletters

Suggested reading list for Journeyman Beekeeper examinations (in addition to those listed for the Beginning and Apprentice Beekeeper examinations)

Books

- *The Hive and the Honey Bee.* Joe Graham, editor. Dadant and Sons, 1992.
- *The ABC and XYZ of Bee Culture: An Encyclopedia Pertaining to the Scientific and Practical Culture of Honey*

Bees. Amos Ives Root, Ann Harmon and Hachiro Shimanuki. A.I. Root, 2007.

- *Honey Bee Pests, Predators, and Diseases, 3rd Edition.* Roger A. Morse and Kim Flottum, eds. A.I. Root, 1998.
- *The Biology of the Honey Bee.* Mark Winston. Harvard University Press, 1991.
- *Bee Pollination in Agricultural Ecosystems.* Rosalind James and Theresa L. Pitts-Singer, eds. Oxford University Press, 2008.

Websites

- All honey bee entries (search for “honey bee”) on the University of Missouri Extension website: <http://extension.missouri.edu>
- University of Nebraska, “Bees, Wasp and Pollinator Resources”: <http://lancaster.unl.edu/pest/bees.shtml>
- Oregon Master Beekeeping Program resources: <http://extension.oregonstate.edu/mb/documents>
- Mid-Atlantic Apiculture Research and Extension Consortium's Honey Bee Parasites, Pests, Predators and Diseases: <https://agdev.anr.udel.edu/maarec/honey-bee-biology/honey-bee-parasites-pests-predators-and-diseases>

Appendix C

Examinations

To become a Beginning Beekeeper, a candidate must take a written exam. To become an Apprentice or Journeyman Beekeeper, a candidate must take a written and practical examination (two hours per exam). Candidates for Junior Master, Master Trainer or Certified Beekeeper take only a written exam. The written tests may consist of multiple choice, true/false, short answer, matching and essay questions. The practical tests contain multiple choice, true/false and matching questions and also include identification of hive parts, tools, and diseases and pests of honey bees. Candidates must score 80 percent or higher on both the practical and written examinations to achieve the next level in the program. Passing candidates will receive their certificate of accomplishment by mail. Generally, the Apprentice-level test will cover the following subject areas: general beekeeping, history of beekeeping, honey bee biology, basic bee anatomy, honey production and products, pests and diseases (common names, causes and treatments), beekeeping equipment use and terminology, and important historical facts (especially people who contributed to the development of beekeeping). Advanced level testing will include all of the Apprentice-level

subjects with the addition of scientific names of pests, diseases and honey bee species; pollination; native bee information and identification; and pesticides. Be sure to review the materials in the reading list in Appendix B. Also, see Appendix H for documentation submission guidelines and information on retesting.

Appendix D

Public service credits

(Journeyman level and above)

Public service credit requirements. Candidates for the Journeyman Beekeeper rank or higher must document a certain number of public service credits. “Public service” is defined as volunteer service or educational activity oriented around bees and beekeeping that is conducted for the benefit of the public (a nonbeekeeping audience). Educational activities in conjunction with commercial ventures, such as selling honey, generally do not qualify.

One public service credit (PSC) equals a single, documented event of a qualified public service. Multiple repetitions of a particular activity may count, but only if they involve separate events or invitations. For example, two presentations to fifth-grade science classes may qualify as two PSCs but not if they are two successive class periods on the same day to the same audience.

PSC documentation. The key to earning PSCs is adequate documentation of the event. For each credit, you will need to submit a Documentation of Public Service form (Addendum 3) and at least one additional piece of evidence that you completed the requirements for the credit. Primary documentation is represented by original media: conference programs, testimonial letters from third parties, newspaper clippings, photographs or video recordings. Secondary documentation may lack material evidence of the activity but must at least include a written statement with the title of the event, date, place, time, topic, target clientele group, number in attendance, activity description and event outcome. In general, documentation must be material evidence, in writing; and more detail is better than less. Board members reserve the right to accept or reject documentation during program audits.

PSC presentation guidelines. When presenting as a member of the Midwest Master Beekeeper Program, remember that you are representing University Extension. Adherence to the following guidelines will help to maintain the integrity of the program as well as public trust.

- Be punctual, trustworthy and reliable. Follow through on your commitments and responsibilities. Call if you will

be delayed or cannot attend the event. Make a reasonable effort to find a replacement speaker if you are going to miss a commitment.

- Maintain a friendly, warm and courteous attitude toward the public.
- Communicate effectively with clients, staff and other Master Beekeeper Program participants.
- Dress appropriately for the volunteer activity in which you are involved.
- Follow Extension affirmative action policies, which forbid discrimination against anyone because of their race, color, gender, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, genetic information, disability or protected-veteran status.

Preapproved PSC activities. The following activities are preapproved for satisfying PSC requirements. Other activities may be admissible, but candidates are advised to contact program officers about specific cases.

1. Presenting a bee-related lecture or workshop to nonbeekeeping group of youths or adults.
2. Holding office in a local beekeeping association.
3. Assisting members of a youth organization, such as 4-H or scouts, with project work.
4. Giving a public demonstration on a beekeeping topic at a fair, festival or similar public event
5. Providing a hive of bees to pollinate a public garden.
6. Establishing and maintaining an observation hive for a school or civic group.
7. Becoming an expert contact on bee-related questions for a University Extension county office (see points below).
 - Must contact the MMBP director to volunteer to serve as an expert in your county. Upon approval, the MMBP director will contact the county program director.
 - Must have scored an average of 80 percent on most your most recent practical and written exams (contact the MMBP board for confirmation and your scores will be forwarded to your county program director).
 - Must be a beekeeper in the county for which you have been appointed an expert contact. (Counties may have multiple expert contacts.)
 - Must maintain a clear channel of communication open to University Extension, your county program director and the public (for example, telephone, email, social media, etc.).
 - Must receive a positive evaluation from your county program director stating, at a minimum, your dates of service, the value of your performance to the

office, and the approximate time you dedicated to the position.

(It may be possible to act as an expert contact for another municipal agency. Appointments are at the discretion of the MBP board and the agency in question.)

Appendix E

Majors and major credits

Major credit requirements. Journeyman Beekeepers must declare a major and document completion of two credits within that major before they can be considered for advancement to Junior Master Beekeeper. Junior Master Beekeepers must document completion of three additional credits to be considered for advancement to Master Trainer Beekeeper. Master Trainer Beekeepers must document completion of another three credits to be considered for advancement to Certified Master Beekeeper.

Major credit documentation. Use the form in Addendum 4 to declare your major. Use the form in Addendum 5 to document each major credit. Use the appropriate cover sheet to organize and summarize your credits (Appendixes 7–9).

Selecting a major and major credits. Preapproved majors and major credits are listed below. Other suggested majors or credits will be considered. Contact the MMBP board if you have questions about any of the requirements or want to propose a different major or credit.

1. Diagnosis and treatment of honey bee pests, parasites and pathogens

- a. Pass (with a score of 80 percent or higher) a tutorial on honey bee diseases.
- b. Pass (with a score of 80 percent or higher) a tutorial and pests and parasites of the honey bee.
- c. Present a lecture on bee pests and diseases at a state, or higher level, beekeepers' meeting.
- d. Switch to and document use of integrated pest management (IPM) in personal beekeeping operation.
- e. Serve as a local expert and help other beekeepers in proper disease and pest diagnosis in their colonies. Document this service.
- f. Acquire a pesticide applicator license.
- g. Create a sterile reference collection of bee pests and diseases. (Insects should be frozen, and disease specimens heat-killed.)
- h. Research and review one pest or disease of honey bees. The review will be published on the MMBP website. The written review must be accompanied by a slideshow presentation.

- i. Pass (with a score of 80 percent or higher) a practical, hands-on examination on bee pests and diseases.
- j. Document attendance at three training workshops on bee pests or diseases.

2. Pollination ecology and bee botany

- a. Provide and document pollination services to a gardener or commercial fruit, nut or vegetable grower.
- b. Plant a bee-friendly garden in a public area such as a library or town square.
- c. Present a lecture on pollination ecology or bee botany at a state, regional (multistate), national or international beekeepers' meeting.
- d. Produce a handout to describe local honey production plants and when they bloom for local (county or regional) clientele.
- e. Pass (with a score of 80 percent or higher) a practical examination on bee plants.
- f. Research and review one plant that is a major honey production plant in Midwest states. The review will be published on the MBP website. The written review must be accompanied by a slideshow presentation.
- g. Become a Certified Master Gardener.
- h. Document training in the identification of pollen present in honey samples.
- i. Document work educating the general public about pollinators.
- j. Create a museum-quality plant collection of regional honey production plants.

3. Honey judging

- a. Judge a honey show at the state level or higher.
- b. Become a certified Welsh Honey Judge at the University of Florida Bee College (http://entnemdept.ifas.ufl.edu/honeybee/extension/bee_college.shtml) or the Young Harris Institute at the University of Georgia (<http://ent.uga.edu/bees>).
- c. Win first or second place in any category at a state- or higher-level honey show.
- d. Document ability to produce mead.
- e. Pass (with a score of 80 percent or higher) a practical examination on honey judging.
- f. Research and review one type of honey important to the Midwest beekeeping industry. The review will be published on the MMBP website. The written review must be accompanied by a slideshow presentation.
- g. Educate the public about hive products and their uses at a fair or similar event.

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- h. Show evidence that you maintain an beekeeper registered honey house.
 - i. Document training in the identification of pollen present in honey samples.
 - j. Document knowledge of honey production and processing, other products of the hive, and value-added theory.

4. Beekeeping for rural development

- a. Document knowledge of alternative methods of queen rearing.
- b. Pass (with a score of 80 percent or higher) a practical, hands-on examination on bee pests and diseases, including nonchemical control of these disorders.
- c. Document knowledge of honey production and processing, other products of the hive, and value-added theory.
- d. Demonstrate proficiency in hive equipment assembly.
- e. Volunteer for a nonprofit charitable organization with agricultural interests, such as Winrock International or Partners of the Americas.
- f. Become a Certified Master Gardener.
- g. Pass (with a score of 80 percent or higher) a written examination on beekeeping for rural development.
- h. Win first or second place in any category at a state- or higher-level honey show.
- i. Document knowledge of pollination ecology, general honeybee biology, and colony management for honey production.

5. Queen production

- a. Attend an instrumental insemination course.
- b. Pass (with a score of 80 percent or higher) an examination on mating biology and bee genetics.
- c. Research and review alternative queen rearing methods for industry. The review will be published on the MMBP website. The written review must be accompanied by a slideshow presentation.
- d. Volunteer 40 or more hours with a professional queen breeder.
- e. Research and review one race of honey bees. The review will be published on the MMBP website. The written review must be accompanied by a slideshow presentation.
- f. Serve as a local expert and help other beekeepers with queen production. Document this service.
- g. Document that you have mentored or trained others in the dynamics of queen rearing.

- h. Document that you are selecting for resistance traits in your own queen-rearing operation.

6. Advanced bee husbandry

- a. Switch to and document use of integrated pest management (IPM) in your personal beekeeping operation.
- b. Pass (with a score of 80 percent or higher) a practical, hands-on examination on bee pests and diseases.
- c. Provide pollination services for a community garden or commercial fruit, nut or vegetable grower.
- d. Plant a bee-friendly garden in a public area such as a library or a town square.
- e. Become a Certified Master Gardener.
- f. Document knowledge of honey production and processing, other products of the hive, and value-added theory.
- g. Attend an instrumental insemination course.
- h. Pass (with a score of 80 percent or higher) an examination on mating biology and bee genetics.

7. Native bee apiculture

- a. Build a native bee nest habitat for a community garden or a commercial fruit, nut or vegetable grower.
- b. Build a native bee nest habitat in a public area such as a library, town square or school.
- c. Present a lecture at a state, regional (multistate), national or international beekeepers' meeting on either native bee diversity or how to create native bee habitats.
- d. Produce an educational color pamphlet or brochure of local native bees for local (county or region) clientele. (All photos used must be cited and permissions granted by the photographer or copyright holder; a reference list is required.)
- e. Pass (with a score of 80 percent or higher) a practical examination on bee and wasp identification.
- f. Research and produce a review of one species of native Midwest bee. The review will be published on the MMBP website. The written review must be accompanied by a slideshow presentation.
- g. Participate in a university study about native bees, and provide documentation of your participation.
- h. Conduct a survey using native bee monitoring techniques, and report on the local native bees present in your area with either a collection of digital photograph of regional bees and wasps complete with an index that provides the date, location and identification information for each photo or a museum-quality insect collection of regional bees

and wasps complete with collector and species identification labels.

- i. Document work providing native bee education to the general public.
- j. Write an article regarding a specific native bee or native bees in general to be published, after review by the MBP director, in a popular journal or magazine or on a website.

8. Apiculture education

- a. Develop an original bee-related educational slideshow presentation (check with the MMBP board for a topic) for a 45-minute lecture, accompanied by a script and a cover page identifying a target audience and listing accompanying resources and resources for further reading. (All photos used must be cited and permissions granted by the photographer or copyright holder; a reference list is required.)
- b. Develop an original bee-related educational YouTube video (check with the MMBP board for a topic) that is 20 to 30 minutes long and includes a list of resources for further reading in the description.
- c. Produce an educational pamphlet or brochure detailing an aspect of beekeeping, such as extracting honey or building equipment, for distribution among beekeepers. (All photos used must be cited and permissions granted by the photographer or copyright holder; a reference list is required.)
- d. Produce an original educational pamphlet or brochure explaining a bee-related issue, such as pathogens or pest issues, for distribution to a specific target audience. (All photos used must be cited and permissions granted by the photographer or copyright holder; a reference list is required.)
- e. Write an article for a popular journal, magazine or newsletter (for example, an association newsletter) about one of the following topics: education using bees, safety and beekeeping, bee-related laws and regulations, bee anatomy and biology, integrated pest management practices (IPM) for beekeeping, or another approved topic.
- f. Pass (with a score of 80 percent or higher) a module on apiculture education basics.
- g. Document attendance at least three state, regional (multistate), national or international beekeeping seminars, such as the annual meeting of the Eastern Missouri Beekeepers Association or the American Beekeeping Federation.
- h. Develop a bee-related teaching module for beekeepers, accompanied by an evaluation tool that will help you judge the success of the module.

- i. Provide documentation of successful beekeeping mentorship (that is, the person you are mentoring is showing clear progress due to your instruction) via self-created pre- and posttests and other evaluations to document growth and progress.
- j. Attend one seminar on how to be an effective educator. (Contact the MMBP director for assistance finding seminars.)
- k. Provide documentation of participation in peer review of Extension presentations by other beekeepers, accompanied by a feedback evaluation form signed by the reviewer, presenter and extension contact.

Appendix F

Core credits

Core credit requirements. Junior Master Beekeepers must document completion of five credits outside their declared major before they can be considered for advancement to the Master Trainer Beekeeper level. Master Trainer Beekeepers must complete another five credits outside their major to be considered for advancement to Certified Master Beekeeper. Credits used to attain one level cannot be repeated to attain the next level.

Core credit documentation. Use the form in Addendum 5 to document each core credit. Use the appropriate cover sheet to organize and summarize your credits (Appendixes 8–9).

Selecting core credits. In addition to selecting credits from the following list, you may choose nonoverlapping credits from other majors to fulfill your core credits.

1. Winning first or second place in an authorized competition in extracted honey, comb or cut-comb honey, crystallized (spun or creamed) honey, or beeswax.
2. Publishing an article in a beekeeping publication (excluding newsletters).
3. Publishing an article in a nonbeekeeping publication with at least statewide distribution.
4. Being recognized as a beekeeping authority in your local area by appearing on radio or television.
5. Documenting training in life-saving treatment of persons suffering from allergic reactions to insect stings.
6. Attending at least three beekeepers' meetings at the state, regional (multistate), national or international level.
7. Conducting a program or workshop at a state, regional (multistate), national or international beekeepers' meeting or convention.
8. Demonstrating competence in small-scale queen rearing.

9. Acquiring a private pesticide applicator's license.
10. Participating or volunteering in a beekeeping research or extension project with a University.
11. Acquiring other certified bee-related training as approved by the MMBP board.
12. Serving two or more years as an officer in a beekeeping organization at state level or higher (years need not be consecutive nor in the same organization).
13. Documenting culture and maintenance of other bee species (bumblebees, halictid, etc.).
14. Mentoring a beekeeping group in a rural, underprivileged or international community.
15. Acquiring international beekeeping experience with clear, documented benefits to the international group and to the Midwest.
16. Maintaining a public blog, public journal or public forum on honey bees. The resource must be informative, science-based, easily accessible, and advertised; and you must be able to show the number of site visits it receives during the year.
17. Volunteering at least 40 hours with a commercial beekeeper or organized university apiary.
18. Some bee-related activities not listed above may also be determined to fulfill the core credit requirements. Consult the MMBP board prior to activity.

Appendix G

Communication skills

(Applicable to Certified Master Beekeeper level only)

The candidate for the rank of Certified Master Beekeeper must present a program at a state-level beekeeper conference. The program may be in the form of a general presentation, workshop or similar activity.

The candidate must also complete two of the following activities:

1. Prepare and publish an article in a beekeeping journal.
2. Prepare and publish an article on bees or beekeeping in a nonbeekeeping publication.
3. Be interviewed on a radio or television program regarding honey bees and/or beekeeping.
4. Be featured in a newspaper article regarding honey bees and/or beekeeping.

Appendix H

Program status, limitations, documentation guidelines and retests

Program status

Active status. An “active beekeeper” is any Master Beekeeper Program participant who is actively pursuing the next level in the program with no more than two years elapsing before testing to obtain the next level (special exceptions: no more than three years between the Master levels). Anyone wishing to maintain active beekeeper status must complete a yearly activity report. Active beekeepers will receive invitations to MMBP-only training events and socials, and emails regarding public service credit (PSC) opportunities.

Inactive status. Any Master Beekeeper Program participant who takes longer than two years to test for the next level in the program is considered to be inactive. Participants who fail to submit a yearly activity report will lose their active status. Active beekeepers will receive invitations to MMBP-only training events and socials, and emails regarding PSC opportunities.

Activity report. Master Beekeeper Program participants are required to submit a yearly activity report by Jan. 31. An activity report should list the credit-worthy activities completed during the calendar year. Please include the name, date and a short description of the activity; the makeup of your audience, such as middle school students, master gardeners or county fair attendees; and the number of people you reached. Participants are encouraged to use the cover sheets, Addenda 6–9, to organize this information.

Limitations

The Midwest Master Beekeeper Program represents a nonprofit, charity, and public education program and organization. Participants should avoid having association with commercial products and should not imply MMBP endorsement of any product or place of business.

Documentation guidelines

Through the course of the year working toward the specified rank, Beginner and Apprentice Beekeepers are required to complete volunteer shadowing hours; Journeyman Beekeepers are required to complete volunteer mentoring hours and public service credits; Junior Master Beekeepers are required to complete volunteer mentoring hours, public service credits and major credits; Master Trainer Beekeepers are required to complete volunteer

mentoring hours, public service credits, major credits and core credits; and Certified Master Beekeeper are required to complete volunteer mentoring hours, public service credits, major credits and core credits and to demonstrate communication skills.

All requirements must be documented on the appropriate form (see Addenda 1–3 and 5). Beginning and Apprentice Beekeepers are required to submit only a Documentation of Volunteer Shadowing form. All higher-level beekeepers must organize and summarize their credits on the appropriate cover sheet and submit it atop the documentation forms (see Addenda 6–9). Documentation for each public service credit requires a Documentation of Public Service Credits form (Addendum 3) and at least one additional piece of evidence that shows the requirements for the credit were completed. The key to presenting all credits — public service, major and core — is adequate documentation of the event or activity. Primary documentation is represented by original media: conference programs, testimonial letters from third parties, newspaper clippings, photographs or video recordings. Please organize documentation materials neatly and present them professionally. Be sure to maintain a copy of the documentation for your records.

All documentation is due to the MMBP director four weeks before exam day. Documentation may be sent via email or postal mail. If you are going to send documentation by postal

mail, be sure to allow enough time for it to arrive at least four weeks before the exam day. The MMBP board reserves the right to accept or reject documentation during program audits.

Retests

- All participants are welcome to retake any test on which they failed to achieve a passing score. Contact the MMBP director to schedule a retest. One retest is offered at no charge if taken within three weeks of the original exam.
- Retests must be taken within three weeks of the original exam. Participants who pass a retest will be certified as passing on the original exam date. This stipulation maintains the prior caveat that each participant must hold each rank for at least one year before being allowed to test to advance in the program.

Acknowledgements

This manual was developed by the Missouri Master Beekeeper Program inaugural board: Moneen Jones, James Ellis, Raymond Nabors and Sam Crowe. Its content was adapted, with permission, from the Florida Master Beekeeper Program Requirements, publication No. ENY155 (revised Oct. 2013), University of Florida IFAS Extension; authors James Ellis, Jerry Hayes, Catherine Zettel Nalen, William H. Kern, Ray Zerba, Brad Burbaugh and Jeanette Klopchin.



Documentation of Volunteer Shadowing Hours

Midwest Master Beekeeper Program

Candidate name: _____

Rank testing for:
 Beginning
 Apprentice
 Journeyman
 Junior Master
 Master Trainer
 Certified Master

Candidate should retain completed form to submit four weeks prior to exam day.

Provide a brief description of each shadowing session, indicate the amount of time spent and the date of the session, and have your mentor sign in the appropriate space. The minimum number of shadowing hours to attain the Beginning and Apprentice Beekeeper ranks is eight each and to attain the rank of Journeyman is 16. Please list all of your shadowing sessions even if your total shadowing time exceeds the minimum requirement. If necessary, please list any additional sessions on another sheet of paper.

Description of volunteer shadowing session	Length of session	Date	Mentor's signature
Total shadowing hours			

Please list your mentor's name and phone number. Most often, you will have just one mentor, but extra rows are provided in case of any changes.

Name	Phone number

Description of volunteer mentoring session	Length of session	Date	Trainee's signature
Total shadowing hours			

Please list your trainees' names and phone numbers.

Name	Phone number



Documentation of Public Service Credits

Midwest Master Beekeeper Program

(to be completed with assistance from Master Beekeeper Program candidate and signed by representative of the organization sponsoring or hosting the event)

Candidate name: _____

Rank testing for: Journeyman Junior Master Master Trainer Certified Master

Candidate should retain completed form to submit four weeks prior to exam day.

On this date, _____, _____ (name), a candidate for advancement in the Midwest Master Beekeeper Program, provided or completed an act of public service that covered the following subject matter related to beekeeping, honey bee pollination or honey production (check all applicable areas):

- | | |
|--|---|
| <input type="checkbox"/> Presenting a bee-related lecture or workshop to a nonbeekeeping group | <input type="checkbox"/> Providing a hive of bees to pollinate a public garden |
| <input type="checkbox"/> Holding office in a local beekeeping association | <input type="checkbox"/> Establishing and maintaining an observation hive for a school or civic group |
| <input type="checkbox"/> Assisting members of a youth organization with project work | <input type="checkbox"/> Becoming an expert contact on bee-related questions for an MU Extension county office (see Appendix A) |
| <input type="checkbox"/> Mentoring a new beekeeper through at least one complete season | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Presenting a public demonstration on a beekeeping topic at a fair, festival or similar public event | |

Organization: _____ Date: _____

Name of event: _____

Estimated number of participants: _____

General description of event:

Representative or witness

Printed name and title: _____

Signature: _____

Contact information (phone and/or email): _____



Major Declaration Form

Midwest Master Beekeeper Program

Name: _____ Email address: _____

Address: _____ Phone number: _____

Please select one major from the list below:

- | | |
|--|---|
| <input type="checkbox"/> Diagnosis and treatment of honey bee pests, parasites and pathogens | <input type="checkbox"/> Advanced bee husbandry |
| <input type="checkbox"/> Pollination ecology and bee botany | <input type="checkbox"/> Native bee apiculture |
| <input type="checkbox"/> Honey judging | <input type="checkbox"/> Apiculture education |
| <input type="checkbox"/> Beekeeping for rural development | <input type="checkbox"/> I would like to propose my own major and will contact the Master Beekeeper Program director. |
| <input type="checkbox"/> Queen production | My proposed major is _____ |

I, _____ (name), have chosen a major as indicated above. Should I choose to change my major, I will promptly contact the MMBP director at midwestmbcp@gmail.com and resubmit my form.



Documentation of Core or Major Credits

Midwest Master Beekeeper Program

(to be completed with assistance from Master Beekeeper Program candidate and signed by representative of the organization sponsoring or hosting the event)

Candidate name: _____

Rank testing for: Journeyman Junior Master Master Trainer Certified Master

Candidate should retain completed form to submit four weeks prior to exam day.

On this date, _____, _____ (name), a candidate for advancement in the Midwest Master Beekeeper Program, provided or completed a service/duty/act that qualifies as a core or major credit as outlined in the MBP Requirements Manual (Appendix E or F). The service covered the following subject matter related to beekeeping, apiculture, education, agriculture or another relevant topic as outlined in the manual:

Credit type: Major Core

Please list appendix, relevant subheadings and credit description (as written in the MBP Requirements Manual):

Example: *Appendix C, 2. Pollination ecology and bee botany, b. Plant a bee-friendly garden in a public area such as a library or town square.*

Description of specific action taken to earn credit:

Relevant quantification: (the number of hours spent and the number of people, publications, etc. your activity reached)

Representative or witness

Printed name and title: _____

Signature: _____

Contact information (phone and/or email): _____



Journeyman Level Cover Sheet

Midwest Master Beekeeper Program

Candidate name: _____

Date Beginning rank achieved: _____

Date Apprentice rank achieved: _____

Public service credits

Provide a brief description of the event and indicate the date it occurred and the number of people reached for each public service credit (PSC). The minimum number of PSCs to attain the rank of Journeyman Beekeeper is five. Space is provided to list credits achieved above the required minimum. If necessary, please list any additional credits on another sheet of paper.

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Modules

Candidates for the rank of Journeyman Beekeeper must score at least 80 percent on six honey bee modules. List the name of each module, the date you completed it and the score you achieved.

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		

Volunteer mentoring hours

Indicate the number hours you spent as a volunteer mentor in the past year. The minimum number of volunteer mentoring hours to attain the rank of Journeyman Beekeeper is 20.

Number of volunteer mentoring hours: _____

Please sign and date below to certify that all of the above information is correct and accurate to the best of your knowledge.

Signature: _____ Date: _____



Junior Master Level Cover Sheet

Midwest Master Beekeeper Program

Candidate name: _____

Date Beginning rank achieved: _____

Date Apprentice rank achieved: _____

Date Journeyman rank achieved: _____

Public service credits

Provide a brief description of the event and indicate the date it occurred and the number of people reached for each public service credit (PSC). The minimum number of PSCs to attain the rank of Junior Master Beekeeper is three. Space is provided to list credits achieved above the required minimum. If necessary, please list any additional credits on another sheet of paper.

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		

Major credits

Declared major: _____

Description of public service credit	Date	No. people reached
1.		
2.		

Volunteer mentoring hours

Indicate the number hours you spent as a volunteer mentor in the past year. The minimum number of volunteer mentoring hours to attain the rank of Junior Master Beekeeper is 20.

Number of volunteer mentoring hours: _____

Please sign and date below to certify that all of the above information is correct and accurate to the best of your knowledge.

Signature: _____ Date: _____



Master Trainer Level Cover Sheet

Midwest Master Beekeeper Program

Candidate name: _____

Date Beginning rank achieved: _____

Date Apprentice rank achieved: _____

Date Journeyman rank achieved: _____

Date Junior Master rank achieved: _____

Public service credits

Provide a brief description of the event and indicate the date it occurred and the number of people reached for each public service credit (PSC). The minimum number of PSCs to attain the rank of Master Trainer Beekeeper is three. Space is provided to list credits achieved above the required minimum. If necessary, please list any additional credits on another sheet of paper.

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		

Major credits

Declared major: _____

Description of public service credit	Date	No. people reached
1.		
2.		
3.		

Core credits

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		

Volunteer mentoring hours

Indicate the number hours you spent as a volunteer mentor in the past year. The minimum number of volunteer mentoring hours to attain the rank of Master Trainer Beekeeper is 20.

Number of volunteer mentoring hours: _____

Please sign and date below to certify that all of the above information is correct and accurate to the best of your knowledge.

Signature: _____ Date: _____



Certified Master Level Cover Sheet

Midwest Master Beekeeper Program

Candidate name: _____

Date Beginning rank achieved: _____

Date Apprentice rank achieved: _____

Date Journeyman rank achieved: _____

Date Junior Master rank achieved: _____

Date Master Trainer rank achieved: _____

Public service credits

Provide a brief description of the event and indicate the date it occurred and the number of people reached for each public service credit (PSC). The minimum number of PSCs to attain the rank of Certified Master Beekeeper is 10. Space is provided to list credits achieved above the required minimum. If necessary, please list any additional credits on another sheet of paper.

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Major service credits

Declared major: _____

Description of public service credit	Date	No. people reached
1.		
2.		
3.		

Core credits

Description of public service credit	Date	No. people reached
1.		
2.		
3.		
4.		
5.		
6.		

Communication skills

Description of public service credit	Date	No. people reached
1.		
2.		

Volunteer mentoring hours

Indicate the number hours you spent as a volunteer mentor in the past year. The minimum number of volunteer mentoring hours to attain the rank of Master Trainer Beekeeper is 20.

Number of volunteer mentoring hours: _____

Please sign and date below to certify that all of the above information is correct and accurate to the best of your knowledge.

Signature: _____ Date: _____