



ENY 2041C

# PRACTICAL BEEKEEPING



Summer B 2019

Course Overview

Periods 2 and 3 (9:30 - 12:15), Tuesday and Thursday  
Bee Laboratory, Building 0964,  
1881 Natural Area Drive, Gainesville, FL, 32611  
<http://campusmap.ufl.edu/#/index/>

## **COURSE DESCRIPTION AND LEARNING OBJECTIVES:**

The overall course goal is that students be able to establish colonies of European-derived honey bees and manage them to be healthy and productive. To achieve this goal, this class is organized as a combined, hybrid course with online lectures and in-person field experiences.

Students should be able to:

1. Recognize and use beekeeping-related jargon,
2. Identify common beekeeping tools and equipment,
3. Identify the members of a honey bee colony and describe the primary role each member plays within a colony,
4. Recognize relevant biological properties of honey bees and their colonies in order to utilize this knowledge to manage colonies properly,
5. Evaluate the health and strength of honey bee colonies accurately,
6. Employ colony management techniques to prevent swarming and maximize honey production,
7. Combine preventative methods and treatments to control common honey bee pests and diseases, and
8. Manage honey bee colonies to produce honey, wax, and value added hive products.

Students' successful achievement of these learning objectives will be evaluated via online lecture quizzes, field journal entries, and a practical assessment.

## **INSTRUCTORS:**

Cameron Jack ([cjack@ufl.edu](mailto:cjack@ufl.edu)), Rm 114 Entomology and Nematology (Honey Bee Lab – Bldg 964),

TA: Carson Beattie ([carsontbeattie@ufl.edu](mailto:carsontbeattie@ufl.edu))

TA: Alex Rice ([a.rice@ufl.edu](mailto:a.rice@ufl.edu))

TA: Anthony Waters ([waters3@ufl.edu](mailto:waters3@ufl.edu))

**OFFICE HOURS:** Office hours will be held by TA's immediately after class. Otherwise meetings are available only by email appointment.

**COURSE COMMUNICATION:** All course communications (assignments, announcements, test information, etc.) will be made via the Announcements and Email functions of Canvas. Please ensure that your Canvas profile is set to receive notifications (i.e. please check the appropriate box to receive all notifications). To do this, click on your name in the upper right corner of the Canvas homepage after logging into Canvas. Next, click "notifications" on the left. This will take you to the Notification Preferences page. Then, click the check symbol for at least the following notifications: Due Date, Course Content, Announcement, and Grading.

**SPECIAL NOTE ON CONTACT VIA EMAIL:** Due to UF privacy laws, you must use your GatorLink account or the Canvas mail system when emailing the Instructor or TA. Emails sent from other accounts (gmail, hotmail, etc.) will not be answered by the Instructor or TA.

**COURSE PREREQUISITES:** None

**RECOMMENDED TEXT (NOT REQUIRED):** Delaplane KS (2007). *Honey Bees and Beekeeping: A Year in the Life of an Apiary, 3rd Edition*. ISBN: 978-1929832316

## COURSE POLICIES:

### APPROPRIATE ATTIRE:

Students will interact with European honey bees regularly throughout the course. Protective equipment, such as beekeeping suits, veils and gloves will be provided. Students are required to wear closed toed shoes. Shoes that cover the ankles (such as hiking boots) provide the most protection from stings around the ankle area. We also recommend that students wear pants (rather than shorts, dresses, skirts, etc.) to class.

### HONEY BEE STINGS:

Stings are likely to occur when working in/around honey bee colonies. Working directly with live honey bee colonies is a significant component of the course. Students with severe (anaphylactic) allergies to honey bee stings should not take this course. If you have never been stung and are unsure of your allergy status, we recommend that you visit an allergist to obtain precautionary allergy response training/treatment (e.g. an EpiPen). All students are required to read the provided document on honey bee stings prior to attending the first day of class. Questions related to this assignment will be included in the first quiz.

### INSTRUCTIONAL METHODS:

Lecture videos will be available through Canvas in an effort to maximize class time for hands on experiences. Students will be expected to watch the recorded lecture prior to each class. Lecture videos are no more than 20 minutes in length and can be viewed on most devices that have access to the internet. Supplemental material will be made available throughout the course via Canvas to enhance student comprehension of the topics covered. Concepts covered in the online lectures will be reinforced during in-person classes.

## GRADING:

Assignment	Points	% of grade
Attendance/Participation	100	25
Class Quizzes	100	25
Field Experience Discussion Posts	100	25
Practical Exam	100	25

### ATTENDANCE/PARTICIPATION:

Attendance and participation are mandatory for this course. Cumulatively, attendance and participation in classes 1-10 will be worth 10 points each day (for a total of 100 points). Students are

expected to arrive to class on time and tardiness will result in a reduction of five attendance points for that day. This course is designed to provide students with hands on experiences in beekeeping. Therefore, students are expected to participate and be engaged in all hands-on activities for the duration of the class period; failure to do so will result in a reduction of participation points for that day up to 5 points. No make-up opportunities are available for attendance/participation without a university excused absence. No family, friends, spouses, etc. are allowed to attend any of the classes.

### **CLASS QUIZZES:**

There is an online quiz associated with each of the classes (classes 1-10). Each quiz is worth 10 points and will include five questions. Quizzes are open note. Students are required to watch the lecture(s) and complete the quiz prior to the beginning of each class. Students will be allowed two attempts for each quiz. **Quizzes are due by 9:30 am the morning of the corresponding class.** No late quiz submissions will be accepted without a university excused absence.

### **FIELD EXPERIENCE DISCUSSION POSTS:**

Students are required to participate on the discussion board after each class. This means that students must, in their own words:

- 1) provide a concise description of what was learned and experienced from the lectures and class and
- 2) make a substantiate comment on at least one other student's post.

Each post must be between 150 and 300 words. Proper terminology, spelling, and grammar are expected in all posts. Students are encouraged to include any questions they may have about the topic. They will be able to see all entries that other students have made once they have submitted their entry. We encourage students to work together to explore any questions that may have been presented by other students. Participation in the discussion (via an original post and comment) is worth 10 points total. A rubric for grading the discussion posts is provided at the end of the syllabus. No make-up opportunities are available for discussion posts without a university-excused absence.

**Field Discussion Posts are due by 9:30 am the morning of the corresponding class.**

### **PRACTICAL EXAM:**

The practical exam will occur during the last class period (see Course Schedule). The practical exam is a three-part exam. One section of the practical will be an assessment of a students' ability to work a bee hive and identify key components of a living honey bee colony. A second section of the practical exam will test students' ability to identify honey bee pests, beekeeping equipment, and beekeeping tools. Finally, a third section will assess student's ability to integrate a series of symptoms/conditions to identify common colony states (e.g. queenless, swarming, healthy, etc.). Make up opportunities are not available for the practical exam without a university-excused absence.

**GRADING SCALE:**

FINAL GRADING		
% grade	Letter grade	Points needed to achieve letter grade
100-93	A	≥ 371.5
90-92	A-	359.5 - 371.4
87-89	B+	347.5 - 359.4
83-86	B	331.5 - 347.4
80-82	B-	319.5 - 331.4
77-79	C+	307.5 - 319.4
73-76	C	291.5 - 307.4
70-72	C-	279.5 - 291.4
67-69	D+	267.5 - 279.4
63-66	D	251.5 - 267.4
60-62	D-	239.5 - 251.4
0-59	E	0 – 239.4

\*For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

**MAKE-UP ASSIGNMENTS/EXAMS:**

Make-up assignments and exams are not available without verification of a university excused absence. In the event of a university excused absence, it is the responsibility of the student to contact the instructor(s) in a timely manner and provide any required documentation to support their absence. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

**COURSE SCHEDULE:**

Class #	Date	Topic
1	2 June 2019	Introduction and Preparing the Apiary
	<b>4 July 2019</b>	<b>Holiday – No Class</b>
2	9 July 2019	Hive Demo and Installing Packages
3	11 July 2019	Clipping and Marking Queens and Hive Inspections
4	16 July 2019	Making Splits and Swarm Control
5	18 July 2019	Field Trip
6	23 July 2019	Pests, Diseases and Hive Inspections
7	25 July 2019	Pests and Diseases Continued

8	30 July 2019	Honey Collection and Hive Inspections
9	1 August 2019	Honey Extraction
10	6 August 2019	Value Added Hive Products and Hive Inspections
11	<b>8 August 2019</b>	<b>Practical Exam</b>

**SCHEDULE DISCALIMER:** This schedule represents current plans and objectives. These plans may need to change throughout the semester due to unforeseeable circumstances (i.e. inclement weather). Such changes will be communicated through announcements on Canvas.

## UF POLICIES:

### ONLINE COURSE EVALUATION PROCESS:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

### UNIVERSITY POLICY ON ACADEMIC MISCONDUCT:

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

## **PLAGIARISM:**

Plagiarism is a serious problem in academia today, especially with the ease of obtaining information from the World Wide Web. Plagiarism is defined as representing the words or ideas of another person as one's own, without attribution to the source. All words and ideas must be attributed to a source unless they are considered common knowledge (i.e., widely known by many people and found in many different sources). There are many kinds of plagiarism; one of the most common ones is "insufficient paraphrasing", even with correct citation. Please look at the Purdue Online Writing Lab's web site on Avoiding Plagiarism (<https://owl.english.purdue.edu/owl/resource/589/01/>).

Plagiarism is unethical, unacceptable in science, and prohibited by the UF Student Honor Code (<http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>). The consequences for plagiarism while at the University of Florida range from receiving a grade of zero for the plagiarized assignment or a failing grade for the course, to, for repeated offenses, expulsion from the university. Plagiarism after graduate training calls into question one's scientific integrity and can lead to banning of publication in journals and the loss of jobs/careers. In some countries, it is an acceptable practice to write in a manner that faculty members at the University of Florida consider to be plagiarism. Students studying in our university and with plans to publish their research in the English language need to know what plagiarism is and how to avoid it.

Students who plagiarize will be caught and consequences will be applied. I check all written assignments using an anti-plagiarism software called Turnitin® ([http://turnitin.com/en\\_us/products/originalitycheck](http://turnitin.com/en_us/products/originalitycheck)). Students who plagiarize will receive a grade of zero on the assignment. The second instance of plagiarism in the course will result in an automatic failing grade in the course.

Please understand that our purpose in bringing to your attention the matter of plagiarism is to help train you to be ethical scientists, not to impugn your character.

## **SOFTWARE USE:**

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

## **GETTING HELP:**

## **UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation (0001 Reid Hall, 352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/))

#### **E-LEARNING AND TECHNICAL SUPPORT:**

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP
- <https://lss.at.ufl.edu/help.shtml>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

#### **CAMPUS HELPING RESOURCES:**

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,

[www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

Counseling Services  
Groups and Workshops  
Outreach and Consultation  
Self-Help Library  
Wellness Coaching

- Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to



look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Points Available**

**2 points**

**1 point**

**0 points**

Accurately summarizes the day's activities	-	Does not accurately summarize the day's activities	
Uses correct terminology/jargon throughout	Occasionally misuses or does not use appropriate terminology/jargon	Consistently misuses or never uses appropriate terminology/jargon	<hr/>
Explains the relevance of the day's activities to being able to manage honey bee colonies successfully	Mentions but does not elaborate on the relevance of the day's activities to successful honey bee management	Does not mention or explain the relevance of the day's activities to successful honey bee management	<hr/>
Is written in complete sentences and uses proper grammar	Occasionally uses improper grammar	Is not written in complete sentences and does not use proper grammar	<hr/>
Responded to 1 or more post(s) made by another classmate	-	Did not reply to another student's post	<hr/>