

Entomology**April 29, 2024****Flint Hills Room, Union****Time of check-in: Section (A) 9:45-10:00, (B) 1:15-1:30****Time of event: (A) 10:00-11:30, (B) 1:30-3:00****Dr. Jeremy Marshall (cricket@ksu.edu)****College Contact: Associate Dean Dan Moser (dmoser@ksu.edu)****January 10, 2024****General Information**

Date of last update: 10 January 2024

Team information (how many members constitute a team; how many scores count if not all):

FFA Chapters can register a team composed of up to 4 members for the Entomology CDE. All team members must take the exam during the same exam period. The top 3 individual scores will be used to assess and rank the Chapter's team. All individual scores will be posted.

Test form used: Universal D 705D-1

Is official dress required for your event: No

Equipment needed: No equipment is needed, but students can use a small magnifying glass for the identification portion of the exam.

Other general announcements (updates, changes, phone rules, etc):

A significant update to the Entomology CDE: We designed these micro courses to help teachers guide their students through learning about entomology. In our conversations with teachers, we realized most of you don't have access to good materials and don't have the time to develop them on your own. So, these micro courses are a direct response to the needs of our Kansas teachers.

As for course structure, they are designed like a typical online course. There are brief lectures followed by a quiz. There are also guided notes for many lectures for students to fill out while they watch the videos. These are designed to help students learn all the material, as well as the material that is covered on the quizzes.

The great part about this online structure is that students can move at their own pace, or teachers can decide on a pace that works for them and their students. Each of the three micro courses has 10 or 11 lectures, so all three micro courses combined would be equivalent to a semester long, introductory College course. However, the material and level of instruction is High School appropriate, as we've had our high school teaching experts evaluate the material.

Also, the Digital collection is divided into different groups based on biology (metamorphosis type and mouthparts), so it should be easier to focus on particular groups. They are even color coded to help facilitate associative learning. There are Quizlet resources, as well, so students can practice in class or on their own. These could also be fun class or group activities. We have even provided powerpoint

slides with the raw images in them so teachers and their students can manipulate them in any educational process or project they like.

If grades are needed, each quiz is automatically graded. It also allows students to retake the quiz as many times as they like, thus allowing them to learn from their mistakes. The quiz will show them the questions they got wrong, but not the correct answer. This means students will need to engage with the lecture material again to get the correct answer. The Canvas Pro software we are using also mixes up the questions and order of possible answers. Questions are also designed to reduce "googling answers" and use of AI. This was a time consuming process, so hopefully it pays off for your students!! They should have the opportunity to learn!!

Lastly, as an added goal, students can earn the official K-State badge for each course. Individuals that complete the course will also get an official certificate of completion. If you have any questions, please feel free to reach out to me, Dr. Jeremy Marshall, at insectsandyou@ksu.edu.

How students and teachers can enroll in the free micro courses for the Entomology CDE.

Students/Teachers will need to enroll in all three courses to access all the material on the CDE.

Introduction to Entomology I: Morphology, Classification, and Identification

<https://www.enrole.com/ksu/jsp/session.jsp?sessionId=442401&courseId=ENTROMORPH&categoryId=10003>

Introduction to Entomology II: Insect Biology

<https://www.enrole.com/ksu/jsp/session.jsp?sessionId=442402&courseId=ENTROINSECT&categoryId=10003>

Introduction to Entomology III: Applied Entomology

<https://www.enrole.com/ksu/jsp/session.jsp?sessionId=442403&courseId=ENTROAPPLIED&categoryId=10003>

Sections/points for each section

The Entomology CDE is scheduled as a 90-minute exam, consisting of two parts: (A) Identification and (B) Written. Students will be randomly split into two groups to start with either the Identification or Written portion of the exam. After 40 minutes, the two groups will switch to the other portion of the exam and be granted 40 minutes to complete the second half. Students are permitted to leave once they have completed both portions of the exam.

NO CELL PHONES OR ELECTRONIC DEVICES PERMITTED. THE USE THEREOF WILL RESULT IN AUTOMATIC DISQUALIFICATION!

Exam Details

A. Identification

The species, Orders, and Classes covered on the Identification exam are covered in the “**Introduction to Entomology I: Morphology, Classification, and Identification**” micro course. There are materials that cover the Classes of Arthropods, Orders of Insects, and species of intersts. Everything needed to be successful on the identification part of the CDE is in the micro course.

There will be 50 specimens or pictures from the digital collection, with one question at each station. For each station, students will have 30 seconds allotted to identify the specimen by either the proper common name, Order, or Class of Arthropod listed in the **FFA CDE Digital Collection List (2023-2024)**. For specimens listed as a specific species, only the species name will be accepted as the correct answer even if the specimen belongs to a larger group of insects as well. An example would be if

the station had an alfalfa weevil. Only “alfalfa weevil” would be accepted as the correct answer, not “weevil,” even though this specimen also belongs to the larger group.

There will be no duplicate specimens. Once a station has been visited, *there will be no “return-visits” to re-examine specimens.* Students are permitted to bring magnifying glasses if desired, however stations for which a magnifying glass is considered necessary will have a magnifying glass provided by the exam administrators.

The file listed as “FFA CDE List of Specimens in Kit 2023-2024” contains the list of “real” insect specimens that could be on the CDE. The Insect Kits can be purchased from the KSU Popenoe Club (popenoe@ksu.edu), as they are available.

B. Written

The written portion of the CDE will be based on the three “Introduction to Entomology” micro-courses that we have developed for the Kansas State Entomology CDE (see above). The quizzes at the end of each lesson are a great place to start, but students are responsible for all the material in all lectures in all three micro courses. The three micro courses provide a solid background in general entomology.

There will be 40 multiple-choice and fill-in-the-blank questions drawn from the micro courses. Approximately 40 minutes are allowed to complete the written exam.

After the entire 90-minute examination period and all students have completed the exam, participants may ask questions regarding the insect specimens on the Insect ID Test, or the answers to questions appearing on the Written Test. Students and instructors are NOT permitted to take photos of specimens or written exam during or after the exam but may go over the specimens with the Entomology CDE volunteers if desired.

Tiebreakers

An additional 5 written questions, chosen for difficulty, will be optional. Results from these 5 questions will only be used to break tie scores on the first 40 written questions.