

### Basic Course Information

Semester:	Spring 2023	Instructor Name:	Dr. Michael Kanyi
Course No. & Title	AG 170: Principles of Entomology	Email:	michael.kanyi@imperial.edu
CRN #:	20500	Webpage (optional):	
Classroom:	2732	Office	3114
Class Dates:	Feb 13, 2023 – June 9, 2023	Office hours: Virtual (email, text canvas, pronto, zoom)	MTWR 1:00pm – 2:00pm
Class Days:	Tuesday & Thursday	Office Phone #:	(760)355-5717
Class Times:	10:15am – 12:45pm	Emergency Contact:	Tisha Nelson, Economic & Workforce Development (760) 355-6361/ (760) 355-6161
Units:	3	Class Format	Face-to-Face (On Ground)

### Course Description

This course covers the principles of the classification, identification, anatomy, physiology, ecology, management, and collecting of arthropods (i.e., insects, spiders, mites, etc.), with emphasis on those of importance to agriculture. (CSU, UC). Laboratory work is required (*For Labster Simulations, you will require a computer and internet*). (CSU, UC).

### Course Prerequisite(s) and/or Corequisite(s)

Although there is no prerequisite requirement for this course, adequate knowledge of general high school biology is expected.

### Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Identify, link, and report common pests to the crop and type of damage.
2. Prepare mounted specimens and label according to discipline protocol.
3. Identify and discuss interrelations between host crop, pest insect & beneficial insects.

### Course Objectives

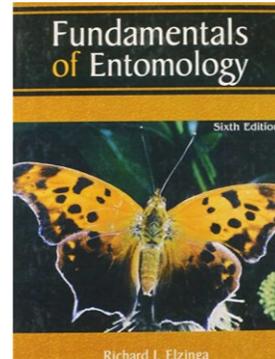
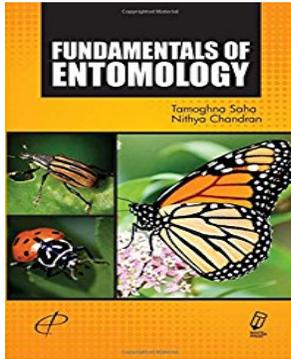
Upon satisfactory completion of the course, students will be able to:

1. Describe the important ways arthropods relate to humans.
2. Identify the important anatomical structures of arthropods.
3. Identify the development and stages of arthropod growth.
4. List the important classes and orders of arthropods.
5. Identify major pest arthropods and demonstrate the principles of arthropod identification.
6. Describe the key concepts in arthropod pest management and control.
7. Describe the important ways that arthropods are beneficial to humans, including pollination of crops.
8. Demonstrate the principles of sampling, collecting, preserving, and mounting arthropods.
9. Develop an arthropod collection.

## Textbooks & Other Resources or Links

The following textbooks will be used for reference.

- Tamoghna, S., & Nithya, C. (2018). *Fundamentals of Entomology*. ISBN: 9789386283740
- Elzinga, Richard (2004). *Fundamentals of Entomology* (6<sup>th</sup> ed.): Pearson/Prentice Hall, ISBN: 978-0130480309



Note: This course will use various open/online educational resources (OERs).

## Course Requirements and Instructional Methods

- Learning activities for this class will include, but not limited to face-to-face discussions, demonstrations, lecture, note reading (posted in canvas), instructional YouTube videos, simulated laboratory activities, outside/field practical experience, assignments, quizzes, and tests. Effective participation in all course activities (discussion on canvas) is highly encouraged and will impact the final grade. Critical thinking approach to solving agricultural economic issues at the regional, state, national and global level will be emphasized.
- Out of Class Assignments (mainly f2f): The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.
- This is a face-to-face course, and the mode of instruction is on the ground in-person. You are therefore advised to ensure class attendance and participation in the weekly instructional activities and assignments.
- You will conduct virtual lab through Labster Simulations that will require a computer (not a mobile phone) and reliable internet.

## Course Grading Based on Course Objectives

Students are advised to acquaint themselves with all rules and regulations of Standards of Student Conduct outlined in the [Imperial Valley College General Catalog](#). For writing assignments, it is expected that each student will demonstrate proficiency in the use of the English Language. Grammatical errors and writing that donot express ideas clearly will affect your grade.

### Tests

There will be **weekly module quizzes** and a **final comprehensive test which will cover all the modules**. The due dates will be indicated in canvas. Test questions may include true/false, multiple choice, matching, and short answer questions. All students are advised to strictly adhere to the dates and times for the tests which will be communicated. Late submission of assignments must be communicated to the professor before the due date to avoid loss of points. **There will be no make-up tests.**

### Late Submission Policy

- Timely submission of all assignments, quizzes, discussion posts, tests and other tasks by the due date is required. Therefore, “No late work and submissions policy” will be followed.
- Minimally, legitimate circumstances that potentially threaten this policy must be communicated and excusal granted

in advance of the submission's due date. There will be a 10% deduction of possible points for a late submission with excusal. If a submission is not made by the due date, and there was no prior excusal, then a zero (0) score will result.

**There will be no make-up tests.**

*Distribution of grading points towards the final grade will be as follows.*

1) Discussion	15%
2) Lab /assignments	25%
3) Quizzes	20%
4) Final test (All modules)	40%
<b>Total</b>	<b>100%</b>

### **Grading Legend**

A= 100-90%

B = 89-80%

C = 79-70%

D = 69-60%

F =<59%

## **Course Policies**

### **Attendance**

- A student who fails to attend the first meeting of this class will be dropped by the instructor as of the first official meeting. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceeds the number of hours the class is scheduled to meet per week may be dropped. **For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.**
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Logging onto Canvas alone is NOT adequate to demonstrate academic attendance and participation.

### **Classroom Etiquette (face-to-face on ground class)**

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend; children are not allowed.

### **Online Netiquette**

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons

(emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!)].

### **Academic Honesty**

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the importance of acknowledging and safeguarding intellectual property. There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

### **Other Course Information**

*Late submissions will not be accepted.*

### **IVC Student Resources**

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

## Anticipated Class Schedule/Calendar

Week dates (Tuesday, Thursday)	Chapters	Topics	Chapters
2/14, 16	Canvas	<b>Orientation Module</b> <ul style="list-style-type: none"> <li>Orientation to the course and online learning</li> <li>Meet and greet discussion posts</li> </ul>	<b>Orientation</b>
2/21,23	Chapter 1	Introduction to Entomology <ul style="list-style-type: none"> <li>Phylum arthropod</li> </ul>	<b>Module 1</b>
2/28, 2	Chapter 1	<ul style="list-style-type: none"> <li>Arthropods and their relationship to humans</li> </ul>	<b>Module 2</b>
3/7, 9	Chapter 2	Insect external anatomy <ul style="list-style-type: none"> <li>Head - sutures and appendages</li> </ul>	<b>Module 3</b>
3/14,16	Chapter 2	Insect external anatomy <ul style="list-style-type: none"> <li>Thorax -divisions and appendages</li> <li>Abdomen</li> </ul>	<b>Module 4</b>
3/21,23	Chapter 3	Internal structures and physiology <ul style="list-style-type: none"> <li><b>Systems:</b> digestive, circulatory, tracheal, muscular, excretory, reproductive, nervous system</li> </ul>	<b>Module 5</b>
3/28,30	Chapter 4	Insect development and specialization <ul style="list-style-type: none"> <li>Embryology</li> <li>Endocrine and Exocrine systems</li> </ul>	<b>Module 6</b>
4/4,6	Chapter 5	Insect ecology and habitats <ul style="list-style-type: none"> <li>Aquatic</li> <li>Terrestrial</li> </ul>	<b>Module 7</b>
<b>4/10 -4/17</b>		<b>SPRING BREAK</b>	<b>BREAK</b>
4/18, 20	Chapter 6	Insect behavior <ul style="list-style-type: none"> <li>Mating</li> <li>Feeding</li> <li>Mimicry</li> </ul> Camouflage	<b>Module 8</b>
4/25,27	Chapters 7, 9, 11, 12 &13	Classification and Orders in the Class Insecta	<b>Module 9</b>
5/2, 4	Chapter 7, 9, 11, 12 &13	Important Orders in the Class Insecta	<b>Module 10</b>
5/9, 11	Chapter 11	Principles of Pest Management <ul style="list-style-type: none"> <li>Cultural method of pest control</li> <li>Biological method of pest management</li> <li>Chemical method of pest control pest control</li> <li>Integrated Pest Management</li> </ul>	<b>Module 11</b>
5/16, 18	Chapter 14	Collecting, mounting, labeling, displaying, and storing arthropods	<b>Module 12</b>
5/23, 25		Forensic entomology	<b>Module 13</b>
5/30, 1		Review of lab report writing	
<b>6/8</b>	<b>Final Test</b>	<b>Final Test (all the modules)</b>	

The chapters and pages in this syllabus are from Elzinga, Richard (2004). *Fundamentals of Entomology* (6<sup>th</sup> ed.): Pearson/Prentice Hall ISBN: 978-0130480309

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*This schedule is very tentative and can change without notice. You are therefore advised to follow the instructions provided at the start of each module or week. Any changes to the schedule, including tests and due dates, will be communicated.*