





### 11. Course objective:

- Identify terrestrial arthropods to Class by visual inspection.
- Identify insects to Order by inspection, and identify common forms to Family.
- Be able to identify unknown insects by use of standard taxonomic keys.
- Apply field-sampling techniques and carry out routine insect surveys.
- Collect, process, and prepare insect specimens for scientific study.
- Make a study collection of insects to learn investigative techniques and identification skills.

### 12. Student's obligation

**Exam policy:** Student Should take 2 exams during the course There will be no make-up exams for absences students without medical report.

#### Classroom polices:

- 1- **Attendance:** You are strongly encouraged to attend class on a regular basis, as participation is important to your understanding of the material. This is your opportunity to ask questions. You are responsible for obtaining any information you miss due to absence.
- 2- **Lateness:** Lateness to class is disruptive.
- 3- **Electronic devices:** All cell phones are to be turned off at the beginning of class and put away during the entire class.
- 4- **Talking:** During class please refrain from side conversations. These can be disruptive to your fellow students and your professor
- 5- **No Disrespectful** to both the professor and to your fellow students.
- 6- English language is used in the lectures. Students are expected to answer exam questions in English language only

### 13. Forms of teaching

Data show (PowerPoint), course book, White board

### 14. Assessment scheme (second semester course)

Component	Date	Percent
Exam1	--/--/2022	45 %
Exam2	--/--/2022	45 %
Respecting Classroom Policy		10%
Total		100%

### 15. Student learning outcome:

After completion of this course, you will be able to:

- Insects and their relatives causation of economic loss, impacts to well-being and transmission of disease pathogens to domestic and companion animals and wildlife, as well as health and well-being of humans through occupational or recreation exposure
- Classification, biology and control of insects and other arthropods associated with livestock and poultry production

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- Impacts of insects and insect-borne diseases on public health
- Integration of principles of animal and plant ecology with environmental factors to characterize wildlife populations.
- External morphology of insects; evolution of form and function
- Physiology of insects; structure and function of internal organ systems and their role in insect success
- Study of the orders and important families of insects and related arthropods, including general biology, relationships with plants and other animals

#### 16. Course Reading List and References:

- 1- **Borror and Dlong's introduction to the study of Insects**, 2004, 7<sup>th</sup> Ed., by Ch. A. Triplehorn, and N. F. Johnson, Thomson.
- 2- **The Insects-Outline of Entomology**, 2005, by P.J. Gullan and P.S. Cranston, 3<sup>rd</sup> Ed. Blackwell Publishing Ltd.
- 3- Biology of Diptera
- 4- C. Gillott (2005) Entomology. 3rd edition

#### 17. The Topics:

Date	Topic
Week 1	Importance of Insects
Week 2	Head
Week 3	Head + Mouthparts
Week 4	Integument
Week 5	Continue the same subject
Week 6	Morphogenesis-Molting
Week7	<b>First Examination</b>
Week 8	Alimentary canal
Week 9	Digestion
Week 10	Thorax +Wings
Week 11	Abdomen
Week 12	Respiratory system
Week 13	Nervous system

Week 14	Circulatory system
Week 15	Reproductive system
Week 16	Continue the same subject
Week 17	<b>Second Examination</b>

### 18. Practical Topics

Date	Topic
Week 1	<b>What is an arthropod? Insects and their relatives; Collecting and preserving of insect</b>
Week 2	<b>The insect head</b>
Week 3	<b>The antennae</b>
Week 4	<b>Insect mouth part Mouth part of mature stage 1- Chewing (biting) mouthpart 2 - Sponging (lapping mouth part)</b>
Week 5	<b>3- Chewing - sponging mouth part mouth part</b>
Week 6	
Week7	<b>First Examination</b>
Week 8	<b>Alimentary canal</b>
Week 9	<b>Digestion</b>
Week 10	<b>Thorax +Wings</b>
Week 11	<b>Abdomen</b>
Week 12	<b>Respiratory system</b>
Week 13	<b>Nervous system</b>
Week 14	<b>Circulatory system</b>
Week 15	<b>Reproductive system</b>

