



Department of plant protection.

Collage of Agricultural Engineering sciences.

University of Salahaddin- Erbil.

Subject: Elective- Forensic Entomology.

Course Book – (Year 4)

Lecturer's name: Lecture

Gazang Taher Omar- Phd

Academic Year: 2022/2023

Course Book

1. Course name	Elective-Forensic Insects
2. Lecturer in charge	Gazang Taher Omar
3. Department/ College	Plant protection / Agricultural Engineering sciences
4. Contact	e-mail: gazang.omar@su.edu.krd Tel: (optional):07504546799
5. Time (in hours) per week	2
6. Office hours	Sunday (2) and Wednesday (4)
7. Course code	
8. Teacher's academic profile	<p>Date of Birth: 5 may1982 Place of Birth: Erbil Nationality: Iraqi Marital Status: Married Sex: Female</p> <p>Education: B.Sc., Agriculture Plant Protection, University of Salahaddin-Erbil (2004-2005) *M.Sc., /Plant Protection, Entomology/ University of Salahaddin-Erbil, 2010 PhD/ Plant Protection, Entomology- insect taxonomy, University of Salahaddin, 2020</p>
9. Keywords	Introduction, PMI, Crime sense, time of death, medical insects, orders and families of Insects which include forensic insects.
10. Course overview:	

The major objective of a forensic entomology investigation is to determine the PMImin. However, insect evidence can also help to indicate the manner of death (e.g. by directing a pathologist to knife wounds on bones below larval infested tissues in which any knife marks had been obliterated by larval feeding activity), the place of death and post-mortem movements of the body (e.g. through a knowledge of insect distribution and finding larvae on a body that were of a species not found in the locality of recovery), and can assist in toxicology studies when the body tissues are too degraded for analysis, that is, the larvae act as a reservoir for drugs in tissues they ingest.

The importance of studying the subject:

Gain an understanding of how forensic entomology is utilized in law and in the courtroom

- Have familiarity with techniques used to identify forensically important insects
- Know proper collection and rearing techniques for forensically important insects
- Learn the proper way to prepare and write a case report

11. Course objective:

1-The meaning of forensic and to know the importance of this science in determining the time of death and identifying the suspect in solving the murders.

2-Learning the scientific classification of forensic insects species.

12. Student's obligation

There are many things important in an academic year:- attendance and completion of all tests, exams, assignments, reports, essays...etc.

13. Forms of teaching

Teaching methods are, using data show ways, power point, white board, giving hand note, video reports

14. Assessment scheme

Marks distribution of 40%

Test	Mark 40%
1st Exam	18
2st Exam	18
Quizes and reports	4
Total	40

Final examination (NO)

15. Student learning outcome:

1- Importance of entomologists in forensic science.

4-Detection Important species of forensic insects and classified them.

16. Course Reading List and References:

1-	Anderson, G.S. 2000. Minimum and maximum development rates of some forensically important Calliphoridae (Diptera). Journal of Forensic Sciences 45: 824–832. Adams, Z.J.O. and Hall, M.J.R. 2003. Methods used for the killing and preservation of blowfly larvae, and their effect on post-mortem larval length. Forensic Science International 138: 50–
2-	Adams, Z.J.O. and Hall, M.J.R. 2003. Methods used for the killing and preservation of blowfly larvae, and their effect on post-mortem larval length. Forensic Science International 138: 50
3-	Amendt, J., Campobasso, C., Gaudry, E. et al. 2007. Best practice in forensic entomology – standards and guidelines. International Journal of Legal Medicine 121: 90–104.
4-	Benecke, M. 2004. Arthropods and corpses. In M. Tsokos (ed.) Forensic Pathology Reviews. Humana Press Inc., Totowa, NJ, pp. 207–240.
5	Byrd, J.H. and Allen, J.C. 2001. The development of the black blow fly, <i>Phormia regina</i> (Meigen). Forensic Science International 120: 79–88

17. The Topics:

Lecturer's name

(1st) week
Introduction, Historical Perspective of Forensic Entomology,
Divisions of Forensic Entomology

(2nd) week Limitations of Forensic Entomology, Post Mortem
Interval (PMI), Factors that might affect their PMI estimates,

(3rd) Decomposition process:

<p>(4rd) Insects that feed on but do not breed in carrion: Early Stage Decomposition: Family:Calliphoridae Order:Diptera</p> <p>(5th) First exam</p> <p>(6th) cheese skipper : <i>Piophilidae</i> Order: Diptera, Family:Piophilidae, Examples of Coleoptera (Beetles)Associated with Forensic investigation</p> <p>(7th) Early Stage Decomposition, 1-Family:Silphidae, Family: 1- Staphlinidae</p> <p>(8th) Late Stage Decomposition, 1-Family: (Cleridae) Ham & Checkered Beetles (<i>Cleridae</i>), 2- Family: Dermestidae</p> <p>(9th) INSECT COLLECTION Insect Collections At a crime scene: Basic Rules of Insect Collection: PMI Calculation Example</p> <p>(10th) second exam</p>	
<p>19. Examinations:</p> <p>1. Questions samples</p> <p>Q1. Definition.....</p> <p>Define PMI, Forensic entomology.....</p> <p>Q2. Identify this specimen</p> <p>1. Scientific name</p> <p>2. Order</p>	

<p>3. Family</p> <p>4. Common name</p> <p>Q3. Write the Description of the family.....</p> <p>Q4. Write the most important species of the family.....</p> <p>Q5. fill the blanks with correct words:</p> <p>Both the immature and adult stages of Order: coleoptera are -----?</p>
<p>20. Extra notes:</p> <p>With the best wishes to the development of Lab. In the. Department.</p>
<p>21. Peer review</p>