Forensic Entomology in Death Investigation Training Course

Professional Development Training Course Outline

Category	Criminology	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Training Course on Forensic Entomology in Death Investigation is a critical discipline within forensic science that utilizes the study of insects to aid in legal investigations, particularly in determining the time, manner, and location of death. With increasing demand for evidence-based death analysis, this course equips forensic professionals, investigators, and students with practical and theoretical knowledge to analyze entomological evidence effectively. Through hands-on case studies and advanced techniques, this training course bridges the gap between crime scene investigation and biological science.

This specialized training will delve into the role of necrophagous insects in postmortem interval (PMI) estimation, scene documentation, evidence collection, and insect development cycle analysis. By integrating the latest advancements in forensic entomology and real-world case applications, participants will gain critical expertise in crime scene management, biological evidence evaluation, and court presentation of forensic entomological findings. The curriculum is tailored for professionals aiming to elevate their career with trending forensic science knowledge.

Programme Curriculum

Forensic Entomology in Death Investigation Training Course

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Course Objectives

1. Understand the role of forensic entomology in modern death investigations.
2. Analyze the insect succession patterns to estimate the postmortem interval (PMI).
3. Identify species of forensic importance at death scenes.
4. Learn proper collection and preservation of entomological evidence.
5. Utilize forensic entomology software and digital tools for species identification.
6. Explore the ecological implications of body decomposition and insect activity.
7. Apply entomological data in court through report writing and expert testimony.
8. Integrate geographic information systems (GIS) in entomological analysis.
9. Investigate toxicological impacts on insect development.
10. Study case-based analysis of homicides involving insect evidence.
11. Develop critical thinking skills using crime scene simulations.
12. Evaluate ethical considerations and limitations of forensic entomology.
13. Gain certification-ready knowledge for career advancement in forensic science.

Target Audiences

1. Forensic science students
2. Crime scene investigators (CSIs)
3. Medical examiners
4. Law enforcement professionals
5. Pathology residents
6. Criminal justice faculty and educators
7. Lawyers and legal professionals specializing in evidence
8. Wildlife and environmental forensic scientists

Course Duration: 5 days

Course Modules

Module 1: Introduction to Forensic Entomology

- Definition, history, and evolution of forensic entomology
- Branches: urban, stored product, and medicolegal entomology

- Importance in death investigation
- Overview of insects of forensic importance
- Ethical and legal considerations
- **Case Study:** Historical overview and analysis of the “Entomologist vs. Pathologist” PMI debate

Module 2: Decomposition and Insect Succession

- Stages of decomposition
- Environmental factors influencing decomposition
- Primary insect species involved
- Insect behavior and habitat preference
- Estimating PMI using insect colonization
- **Case Study:** Analysis of insect colonization patterns in a desert vs. urban homicide case

Module 3: Collection and Preservation of Entomological Evidence

- Tools and equipment for insect collection
- On-site collection protocols
- Storage and labeling standards
- Chain of custody for biological evidence
- Laboratory preservation and rearing of specimens
- **Case Study:** Missteps in collection leading to acquittal—what went wrong?

Module 4: Insect Identification and Classification

- Morphological and genetic identification
- Use of dichotomous keys and identification software
- Larvae, pupae, and adult insect structures
- Common forensic species by region
- Role of DNA barcoding in entomology
- **Case Study:** Mystery maggots—species confusion in a drowning case

Module 5: Estimating Postmortem Interval (PMI)

- Factors affecting PMI estimation
- Growth stages of Diptera (flies) and Coleoptera (beetles)
- Accumulated Degree Days (ADD) and thermal units
- Minimum PMI vs. total PMI
- Software tools for PMI modeling
- **Case Study:** Backdated murder—revising PMI using insect analysis

Module 6: Advanced Analytical Tools in Forensic Entomology

- Use of GIS in spatial analysis of insect data
- Digital modeling of insect colonization
- Toxicology and its effect on insect growth

- Climate data integration
- Microscopy and chemical analysis
- **Case Study:** Entomotoxicology findings in a fentanyl overdose case

Module 7: Entomological Evidence in Court

- Writing expert reports for legal proceedings
- Cross-examination strategies and preparation
- Admissibility of forensic entomology in court
- Communicating science to non-scientific audiences
- Case law review on entomological testimony
- **Case Study:** The first U.S. conviction based on insect evidence

Module 8: Simulated Crime Scene Investigation and Final Assessment

- Mock crime scene setup
- Step-by-step entomological evidence collection
- Group analysis and PMI estimation
- Presentation of findings as expert witnesses
- Peer and instructor feedback sessions
- **Case Study:** Final integrative simulation mimicking real-life homicide using insect data

Training Methodology

- Interactive lectures with visual aids and 3D insect models
- Real-time insect collection demonstrations
- Group discussions and scenario-based role plays
- Hands-on lab sessions with insect rearing
- Simulated crime scenes for practical application
- Assessment quizzes and final exam

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com