Animal Tracking & GPS Methods Training Course

Professional Development Training Course Outline

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

Course Introduction

Animal Tracking & GPS Methods Training Course is designed to equip wildlife professionals, conservationists, researchers, and environmental practitioners with cutting-edge skills in GPS telemetry, satellite tracking, radio collaring, GIS mapping, drone-based monitoring, and real-time wildlife data analytics. As global biodiversity faces unprecedented threats from climate change, habitat fragmentation, and human-wildlife conflict, the demand for precision wildlife monitoring, conservation technology integration, and data-driven ecosystem management has never been greater. This course integrates practical field techniques with digital innovation, empowering participants to deploy high-accuracy GPS tracking devices, remote sensing tools, geospatial intelligence systems, and AI-powered wildlife analytics platforms for impactful conservation outcomes.

Through a blend of immersive field simulations, real-world case studies, hands-on GPS collar deployment exercises, and advanced GIS mapping workshops, participants gain expertise in animal movement ecology, habitat utilization analysis, migration pattern assessment, wildlife corridor mapping, and predictive conservation modeling. The program emphasizes ethical wildlife handling, legal compliance, data security, and sustainability frameworks, ensuring responsible implementation of modern tracking technologies. By the end of the course, learners will be proficient in designing and managing comprehensive wildlife tracking projects aligned with international conservation standards and smart environmental management systems.

Programme Curriculum

Animal Tracking & GPS Methods Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Master GPS telemetry systems for wildlife movement monitoring.
2. Deploy satellite tracking collars with high-precision geolocation.
3. Analyze wildlife data using GIS spatial analytics platforms.
4. Implement drone-assisted wildlife surveillance techniques.
5. Utilize AI-driven wildlife data analytics for predictive modeling.
6. Apply radio frequency (VHF/UHF) tracking technologies effectively.
7. Conduct habitat mapping using remote sensing technologies.
8. Design smart conservation monitoring frameworks.
9. Evaluate animal migration tracking systems for ecosystem studies.
10. Integrate IoT-enabled wildlife monitoring devices.
11. Ensure ethical wildlife capture and collaring protocols.
12. Develop real-time biodiversity monitoring dashboards.
13. Produce data-driven conservation impact assessments.

Target Audience

1. Wildlife Biologists & Conservation Scientists
2. Environmental Researchers & Ecologists
3. National Park & Protected Area Officers
4. Forestry & Natural Resource Managers
5. Veterinary Wildlife Specialists
6. NGO Conservation Program Managers
7. GIS & Remote Sensing Professionals
8. Postgraduate Students in Environmental & Wildlife Sciences

Course Modules

Module 1: Fundamentals of Animal Tracking Technology

- Evolution of wildlife tracking systems

- GPS telemetry & satellite tracking fundamentals
- VHF radio tracking techniques
- Types of tracking collars & tags
- Data transmission methods (GSM, Argos, Iridium)
- **Case Study:** GPS collaring of elephants to reduce human-wildlife conflict through geofencing alerts.

Module 2: GPS & Satellite Telemetry Deployment

- Device selection & configuration
- Collar fitting and animal welfare considerations
- Accuracy optimization & signal troubleshooting
- Data logging intervals & battery optimization
- Field calibration techniques
- **Case Study:** Satellite tracking of migratory birds to identify transboundary flyways.

Module 3: GIS Mapping & Spatial Data Analysis

- Introduction to geospatial intelligence systems
- Importing and managing GPS datasets
- Habitat use & home range analysis
- Wildlife corridor mapping
- Spatial modeling & heat map generation
- **Case Study:** Mapping predator-prey movement overlap zones to reduce livestock losses.

Module 4: Drone & Remote Sensing Applications

- UAV-based wildlife monitoring
- Thermal imaging for nocturnal species
- Habitat change detection using satellite imagery
- Real-time aerial surveillance integration
- Drone data processing workflows
- **Case Study:** Drone-assisted rhino monitoring for anti-poaching operations.

Module 5: AI & Data Analytics in Wildlife Monitoring

- Big data management in conservation
- Machine learning for movement prediction
- Automated anomaly detection in tracking data
- Cloud-based wildlife monitoring platforms
- Predictive conservation modeling
- **Case Study:** AI-powered detection of unusual movement patterns indicating poaching risk.

Module 6: Ethical Capture, Tagging & Legal Compliance

- Wildlife capture methods & safety protocols
- Animal stress minimization strategies
- International wildlife tracking regulations
- Data privacy & ethical considerations
- Risk management frameworks
- **Case Study:** Ethical guidelines implementation in large carnivore collaring projects.

Module 7: IoT & Real-Time Monitoring Systems

- IoT-enabled smart tracking devices
- Real-time biodiversity monitoring dashboards
- Sensor-based environmental monitoring
- Geofencing & alert systems
- Integration with mobile data platforms
- **Case Study:** Real-time monitoring of marine turtles using IoT-enabled satellite tags.

Module 8: Project Design & Conservation Impact Assessment

- Designing wildlife tracking research proposals
- Budgeting & funding strategies
- Monitoring & evaluation frameworks
- Conservation impact reporting
- Stakeholder engagement & policy integration
- **Case Study:** Long-term wolf tracking program supporting ecosystem restoration policies.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

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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