Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

VETERINARY AND ANIMAL SCIENCE

GIS for Animal Studies Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
10 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 21, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE

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Training Centers: Nairobi • Mombasa • Kigali • Dubai • Live Virtual Academy

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GIS for Animal Studies Training Course

Veterinary and Animal Science • 10 Days Intensive • Accredited Certification

Course Overview

GIS for Animal Studies Training Course is designed to empower wildlife researchers, ecologists, and conservationists with cutting-edge spatial analysis and geospatial mapping skills.

Key Skills & Software Tools Covered

Spatial data mapping • GPS navigation • habitat analysis • data visualization

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
5 Jan 2026 – 16 Jan 2026	Nairobi	Classroom / 10d	**$3,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Kigali	Classroom / 10d	**$6,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Dubai	Classroom / 10d	**$10,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Cape Town	Classroom / 10d	**$9,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Addis Ababa	Classroom / 10d	**$6,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Singapore	Classroom / 10d	**$10,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Istanbul	Classroom / 10d	**$10,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Bangkok	Classroom / 10d	**$10,000 USD / KES 220,000**
5 Jan 2026 – 16 Jan 2026	Accra	Classroom / 10d	**$8,000 USD / KES 220,000**
19 Jan 2026 – 30 Jan 2026	Nairobi	Classroom / 10d	**$3,000 USD / KES 220,000**
19 Jan 2026 – 30 Jan 2026	Kigali	Classroom / 10d	**$6,000 USD / KES 220,000**
19 Jan 2026 – 30 Jan 2026	Dubai	Classroom / 10d	**$10,000 USD / KES 220,000**

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

GIS for Animal Studies Training Course

Introduction

GIS for Animal Studies Training Course is designed to empower wildlife researchers, ecologists, and conservationists with cutting-edge spatial analysis and geospatial mapping skills. This course leverages the latest GIS technologies, remote sensing, and data visualization techniques to study animal behavior, migration patterns, habitat distribution, and biodiversity. Participants will gain hands-on experience in spatial data management, ecological modeling, and wildlife monitoring, enabling them to make informed conservation decisions.

By integrating real-world case studies, participants will explore the practical applications of GIS in tracking endangered species, predicting ecological changes, and managing wildlife resources. The course emphasizes interactive learning, field data collection, and advanced spatial analytics, making it suitable for professionals seeking to enhance their research efficiency, habitat assessment, and species conservation strategies. This program positions learners at the forefront of digital ecology, geospatial intelligence, and environmental sustainability, providing the expertise necessary to tackle complex ecological challenges.

Course Duration

10 days

Course Objectives

- Understand the fundamentals of GIS technology in wildlife and ecological studies.
- Develop skills in spatial data collection and remote sensing for animal research.
- Apply geospatial modeling to analyze animal movement and habitat usage.
- Utilize GPS tracking and satellite imagery for wildlife monitoring.
- Conduct species distribution mapping using advanced GIS tools.
- Implement biodiversity assessment techniques through geospatial analytics.
- Integrate machine learning algorithms for predicting animal behavior.
- Enhance habitat suitability analysis and ecological risk mapping.
- Interpret GIS datasets to support conservation decision-making.
- Perform temporal analysis to study seasonal migration patterns.
- Use interactive dashboards and data visualization tools for reporting.
- Apply real-world case studies to solve conservation and wildlife management problems.
- Stay updated with emerging GIS trends, including AI in ecology, IoT-enabled tracking, and cloud-based spatial platforms.

Target Audience

- Wildlife biologists and ecologists
- Conservation scientists and practitioners
- Environmental data analysts
- Forestry and wildlife management professionals
- Students and researchers in ecology and zoology
- Government and NGO conservation program staff
- GIS specialists focusing on ecological applications
- Environmental consultants and policy makers

Course Modules

Module 1: Introduction to GIS for Animal Studies

- Overview of GIS applications in ecology
- Key GIS software tools and platforms
- Spatial data types and sources
- Importance of geospatial intelligence in conservation
- Case Study: Mapping elephant corridors in Africa

Module 2: Spatial Data Collection Techniques

- GPS tracking for wildlife
- Remote sensing data acquisition
- Field survey methodologies
- Data quality and accuracy checks
- Case Study: Tracking migratory birds using GPS

Module 3: Remote Sensing for Animal Studies

- Satellite imagery analysis
- Vegetation and habitat mapping
- Thermal and infrared imaging
- Change detection over time
- Case Study: Habitat loss monitoring in the Amazon rainforest

Module 4: GIS Data Management

- Data import/export and formats
- Database design for wildlife datasets
- Attribute data management
- Metadata standards
- Case Study: Managing tiger population databases in India

Module 5: Species Distribution Modeling

- Habitat suitability analysis
- Predictive modeling of species presence
- Using environmental layers
- Statistical tools for distribution modeling
- Case Study: Modeling panda habitats in China

Module 6: Biodiversity Assessment

- Mapping species richness
- Ecosystem health indicators
- Using GIS for biodiversity indices
- Multi-species overlap analysis
- Case Study: Biodiversity hotspots in Madagascar

Module 7: Animal Movement and Migration Analysis

- Tracking seasonal migration patterns
- Home range and territory analysis
- Movement corridors identification
- Spatio-temporal analysis techniques
- Case Study: Monarch butterfly migration mapping

Module 8: Human-Wildlife Conflict Mapping

- Identifying conflict hotspots
- Land-use and habitat interaction analysis
- Risk assessment mapping
- Mitigation planning using GIS
- Case Study: Crop raiding elephants in Kenya

Module 9: Remote Wildlife Monitoring Technologies

- Camera traps and drone monitoring
- IoT-enabled wildlife sensors
- Data integration from multiple sources
- Analysis of sensor-generated datasets
- Case Study: Drone-based monitoring of polar bears

Module 10: Conservation Planning with GIS

- Protected area management
- Corridor and reserve planning
- Scenario analysis and prioritization
- Stakeholder engagement using maps
- Case Study: Designing wildlife corridors in North America

Module 11: GIS-Based Risk Assessment

- Threat mapping (poaching, deforestation)
- Ecological vulnerability analysis
- Environmental impact assessments
- Risk mitigation strategies
- Case Study: Poaching risk zones in African reserves

Module 12: Spatial Statistics and Modeling

- Kernel density estimation
- Point pattern analysis
- Geostatistical interpolation methods
- Predictive spatial models
- Case Study: Hotspot analysis of marine mammal sightings

Module 13: Data Visualization and Reporting

- Interactive dashboards
- Map styling and thematic mapping
- Infographics for stakeholders
- Storytelling with GIS
- Case Study: Wildlife conservation reports for NGOs

Module 14: Emerging Technologies in GIS for Animal Studies

- AI and machine learning in wildlife analytics
- Cloud-based GIS platforms
- Mobile GIS applications
- Real-time tracking systems
- Case Study: AI-driven species identification in camera trap images

Module 15: Capstone Project

- End-to-end GIS project design
- Data collection, processing, and analysis
- Map creation and visualization
- Presentation and stakeholder engagement
- Case Study: Student-led project on local wildlife monitoring

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@datastatresearch.org or call +254724527104

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 DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you.

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/gis-for-animal-studies-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.