



## NJ MORE FIELD GUIDE COLLEGE - SYLLABUS

### 1. 6 MONTHS COURSE CONTENT

- FGASA Apprentice Field Guide (NQF2) (Level 1)
- FGASA Apprentice Trails Guide (Back-up Trails)
- Rifle competency & Advanced Rifle Handling
- Wilderness First Aid level 1 and 2 (detailed syllabus below)
- Tracks & Signs (detailed syllabus below)
- Birding (ID of birds and sounds)
- Navigation & Orientation (detailed syllabus below)
- 4x4 Driving (detailed syllabus below)
- Principals of Reserve Management & Anti-Poaching
- Wildlife Photography
- Basic Mechanics
- Hospitality in 5-star environment

## 2. SYLLABUS FGASA APPRENTICE FIELD GUIDE (LEVEL 1)

The Apprentice Field Guide should be able to identify the major living and non-living features of the natural environment in which s/he operates and interpret them at a level based mainly on observation and from an elementary scientific and cultural perspective. As a general guideline, an Apprentice Field guide must have sound knowledge of the history, geology, plants and animals (i.e. birds, mammals, reptiles, etc) in the specific area of operation.

## 3. THE FGASA APPRENTICE FIELD GUIDE (LEVEL 1) SYLLABUS INCLUDES THE FOLLOWING MODULES:

- Introduction to guiding in the natural environment
- Creating a guided nature experience
- Geology
- Astronomy
- Weather & Climate
- Basic Ecology
- Basic Taxonomy
- Introduction to the Biomes of Southern Africa
- Botany & Grasses
- Arthropods
- Amphibians
- Reptiles
- Fish
- Birds
- Mammals
- Conservation management and Historical Human Habitation

### MODULE 1 - INTRODUCTION TO GUIDING IN THE NATURAL ENVIROMENT

On completion of this module you will:

- Have an understanding of what a professional nature guide does and where s/he fits into the tourism guiding industry.
- Know what the aims of nature guiding are.
- Have an understanding of guiding ethics in the natural environment
- Have been introduced to a set of guiding principles and a code of conduct for guides from FGASA and a Dept. of Environment Affairs and Tourism (DEAT) point of view and have an understanding of legal requirements

### MODULE 2 - CREATING A GUIDED NATURE EXPERIENCE

On completion of this module you will:

- Be able to carry out a pre-briefing before embarking on a guided experience.

- Be aware of determining any medical considerations of your clients.
- Be able to determine if your clients have any special interests before departing on the guided experience.
- Have the ability to involve all of your clients as individuals in the guided experience.
- Take into consideration the environmental factors when it comes to the comfort of your clients.
- Have enhanced communication skills for guiding in the natural environment.
- Be able to carry out research on potentially interesting sights
- Approach animals taking into consideration all the client and animal factors which will affect the approach.
- Be able to orientate yourself during the day and at night making use of a number of methods to do so.
- Know what procedures to follow when lost and have the ability to find water and edible food in the natural environment.
- Be able to interpret all aspects of the natural environment to enhance the experience of your clients.

### **MODULE 3 - GEOLOGY**

On completion of this module you will:

- Know what the meaning of Geology is.
- Have a basic understanding of what the Earth consists of.
- Know how rocks are classified
- Understand how igneous, sedimentary and metamorphic rocks are formed.
- Know what a mineral is and be able to give a few examples.
- Have an understanding and knowledge of a few common rock types.
- Know the weathering properties of some common rock types.
- Have an understanding of the interrelationships between rocks, soil, climate, vegetation and animals.

### **MODULE 4 - ASTRONOMY**

On completion of this module you will:

- Be able to understand by definition what is meant by a universe, galaxy and solar system.
- Know the position of the nine planets in the solar system in terms of their distance from the Sun.
- Be able to point out the constellations of Orion, Scorpio and the Southern Cross.
- Be able to determine a southerly direction making use of the Southern Cross.
- Be able to describe the phases of the moon as it is viewed from Earth.
- Know what is meant by an eclipse and how to differentiate between a lunar and a solar eclipse in terms of the positioning of the Sun, Earth and Moon.

- Know how the ocean tides are affected by the moon.

## **MODULE 5 - WEATHER AND CLIMATE**

On completion of this module you will:

- Know the difference between weather and climate
- Understand the process of cloud formation.
- Know the different types and names of clouds and what weather conditions are associated with these different cloud types and how this may affect the guiding experience.
- Know the different types of local wind conditions that may apply to the area of guiding operation.
- Be able to describe the four major influences on the South African climate.
- Understand the general Summer and Winter conditions of Southern Africa.

## **MODULE 6 - BASIC ECOLOGY**

On completion of this module you will:

- Know what Ecology is and how important an understanding of ecology is for the nature guide.
- Have an understanding of the major components of ecosystems.
- Be able to explain the different levels of organisation in ecology.
- Know what trophic pyramids, food chains and food webs are and how to give an explanation of these.
- Be able to give an explanation of the nutrient cycle.
- Be able to give an explanation and examples of symbiotic relationships.
- Know what predation is and the various types of competition that occurs in the natural environment.

## **MODULE 7 - BASIC TAXONOMY**

On completion of this module you will:

- Know what the meaning of taxonomy is.
- Have an understanding of why and how living organisms are classified.
- Be able to name the six kingdoms of living organisms.
- Be able to place living organisms into the hierarchical order of classification.

## **MODULE 8 - INTRODUCTION TO THE BIOMES OF SOUTHERN AFRICA**

On completion of this module you will:

- Know what a biome is.
- Be able to name the seven major biomes in Southern Africa.
- Be able to explain the biomes in terms of the amount of seasonal rainfall and temperature.
- Know what the main indicator species are for each of the biomes in terms of animals and dominant vegetation types.

## **MODULE 9 - BOTANY AND GRASSES**

On completion of this module you will:

- Know the anatomy of a tree.
- Know how to identify a tree and thus be able to apply this knowledge to identify any tree in Southern Africa.
- Be able to give some interesting facts about trees in terms of general uses, medicinal uses and traditional beliefs associated with specific trees.
- Know the anatomy of a grass plant.
- Know how to identify a grass plant and thus be able to apply this knowledge to identify any grass plant in Southern Africa.
- Know the differences between sweet and sour veld.
- Be able to explain grassland succession.
- Understand what is meant by the ecological status and the grazing value of grasses.

## **MODULE 10 ARTHROPODS (INSECTS AND RELATIVES)**

On completion of this module you will:

- Know what an arthropod is.
- Know what the characteristics of insects are.
- Be able to explain the three different types of insect life-cycles and give examples of each.
- Understand why insects are so successful and the ecological importance of insects.
- Have a basic understanding of insect flight and their feeding behaviour.
- Be able to identify common insect orders.
- Be able to explain the difference between insects and spiders.
- Know what the characteristics of the Arachnida are and be able to place spiders into two main sub-orders.
- Know how to recognise the venomous spiders in South Africa which are of medical importance to human beings and know what type of venom

they have.

- Know what the characteristics of scorpions are and how to distinguish between the two main types of scorpions.
- Know what the differences are between Millipedes and Centipedes and their particular feeding behaviour.

## **MODULE 11 - AMPHIBIANS (FROGS AND TOADS)**

On completion of this module you will:

- Know the characteristics of the class of amphibians and be able to explain the differences between frogs and toads and their calls
- Understand the life cycle of frogs and toads and be able to explain metamorphosis.
- Be able to explain mating postures, nests and types of eggs of frogs and toads.

## **MODULE 12 - REPTILES**

On completion of this module you will:

- Know the characteristics of the class of reptiles.
- Be able to identify the features of the three reptile orders.
- Be able to identify the features of Turtles, Tortoises and Terrapins.
- Be able to identify the features of skinks, lizards, agamas, geckos, chameleons, monitors and snakes.
- Know how to identify the more common species of snakes as well as the potentially lethal families and species of snakes.
- Be able to name the different types of snake venom, symptoms and effects.
- Be able to classify snakes in terms of the different teeth structures.
- Know the different types of reproduction in snakes.
- Have a basic understanding of the senses of snakes.
- Know some interesting facts about reptiles.

## **MODULE 13 - FISH**

On completion of this module you will:

- Know what a fish is.
- Be able to label the external anatomy of a fish.
- Understand the ecological importance of fish.
- Be able to explain how fish reproduce and grow.
- Know the different types of fish feeding behaviour.
- Understand how fish move through water.
- Be able to explain the concepts of neutral buoyancy and the swim bladder.
- Know how the lateral line system works in fish and why it is important.

- Be able to identify common species of fish.

## **MODULE 14 - BIRDS**

On completion of this module you will:

- Know the characteristics of the class of birds.
- Understand the difference between passerines and non-passerines.
- Be able to give explanations of the various feeding methods and type of food that birds eat.
- Be able to point out examples of prominent bird species nests.
- Be able to give a basic explanation of commonly displayed bird behaviour.
- Know how to identify birds making use of the various identification pointers.
- Be able to identify the prominent and common bird species.

## **MODULE 15 - MAMMALS**

On completion of this module you will:

- Know the characteristics of the class of mammals.
- Know the characteristics of the sub-classes of mammals.
- Be able to explain the foot structure and digestive systems of ruminants and hindgut fermenters.
- Be able to give the basic physical characteristics, social and feeding habits, habitat and distribution of the common species of mammals.
- Be able to differentiate between males and females of common mammal species.
- Have basic behavioural knowledge of the main indicator species ("Flagship")

## **MODULE 16 - ANIMAL BEHAVIOUR**

On completion of this module you will:

- Know what animal behaviour is.
- Understand the different grouping behaviour of animals.
- Be able to explain the different forms of animals' communication making use of relevant examples.
- Have an understanding of various types of animal protective behaviour.
- Be able to explain the differences between animal home-ranges and territories.
- Be able to identify and interpret animal signs and sounds.

## MODULE 17 - CONSERVATION MANAGEMENT AND HISTORICAL HUMAN INHABITANTS

On completion of this module you will:

- Know what conservation practices are used in the natural environment.
- Understand why and how these conservation practices are carried out.
- Know what a Transfrontier/ Peace Park is and be able to give some examples.
- Know what a Biosphere Reserve is, why they are established and be able to give some examples of working Biosphere reserves.
- Have knowledge and an understanding of the early human inhabitants of Southern Africa.
- Be able to explain the three Stone Age periods that took place in Southern Africa and some of the more interesting Stone age sites and their significance.
- Be able to explain the characteristics of the Iron Age sites in Southern Africa and their significance.
- Have an understanding of the distribution of traditional Southern African cultures.

This module 17 will cover the absolute basics in terms of the topics included, and is thus only a very brief introduction to conservation management and Historical Human Habitation of Southern Africa.

a) The conservation management section of this module will include the following:

- The use of fire as a management tool
- Bush encroachment and alien plant control
- Erosion control
- Road maintenance
- Animal population control
- Water provision and water-hole rotation

b) The Historical Human Habitation section of this module will include the following:

- A brief history of humans in Southern Africa
- The Early Stone Age
- The Middle Stone Age
- The Later Stone Age
- The Iron Age
- The distribution of Traditional Southern African cultures based on language



## **4. SYLLABUS- FGASA APPRENTICE TRAILS GUIDE**

A FGASA Apprentice Trails Guide (Back-up trails Guide) is an individual who is in training (in an apprentice program) to become a Trails Guide and will learn how to function as 2<sup>nd</sup> Rifle and later as 1<sup>st</sup> Rifle during the training phase. The apprentice program is a stepping stone in the process for a guide to attain a FGASA Trails Guide qualification and is not yet qualified to conduct trails or walks in areas with dangerous game in absence of a FGASA Trails Guide (NQF4), Professional Trails Guide, or SKS (DG) Guide

### **MODULE 1 – APPROACHING ANIMALS ON FOOT**

- Rules for walking in the bush – clients informed about procedures before departing on walks
- Approaching dangerous game – Guidelines when dealing with dangerous game
- Comfort zones and personal space
- Responses to charging animals
- Client restrictions on walks
- Guest checks before a walk
- Guest briefing before walks
- Approaching dangerous game
- Areas to walk through carefully or avoid walking through altogether

### **MODULE 2 – WAEPON HANDLING**

- Rifle requirements
- Additional Firearms
- Rifle loading
- State of readiness
- Rifle operation in dangerous situations
- Carrying a rifle
- The function and position of the armed backup or tracker
- Rifles along on game drives
- Rules and safe handling of fire arms
- Mechanics of the bolt action rifle
- Rifle ballistics
- Cleaning and Maintenance

### **MODULE 3 – DANGEROUS ANIMAL KNOWLEDGE**

- General information of white and black rhinoceros, lion, leopard, buffalo, elephant and hippo

### **MODULE 4 – SECTIONS OF FIREARM CONTROL ACT**

(Act 60 of 2000) relevant to nature guides

## **5. SYLLABUS ANIMAL TRACKS AND TRACKING**

- Track & sign interpretation
- The basics of Trailing
- Gaits
- Track & Sign interpretation and evaluation by Cyber-Tracker

## **6. SYLLABUS NAVIGATION AND ORIENTATION**

- Compass and maps
- Global positioning system
- Celestial indicators
- Natural phenomena

## **7. SYLLABUS 4X4DRIVING**

- General safety
- When to use high- and low-range
- Differentials, hubs and traction control
- Tyre pressure
- Descents/ Ascents
- Driving on or through Sand, Grass, Mud, Rocks, Water

