



THE SYLLABUS FOR THE ENVIRO-GUIDE LEVEL I CERTIFICATE COURSE



The level I guide should be able to identify the major living and non-living features of the natural environment in which she/he operates and interpret them at a level based mainly on observation and from an elementary scientific and cultural perspective.

As a general guideline, a level I guide must have sound knowledge of the history, geology, plants and animals (i.e. birds, mammals, reptiles, etc) in the specific area of operation.

Contact the Wildlife Education Foundation (WEF: www.wild.org.za) for more information: support@wild.org.za

THE WEF-ENVIRO LEVEL 1 SYLLABUS INCLUDES THE FOLLOWING MODULES:

NB: These Modules may be completed as separate short diploma courses:

Modules 1-5 ENVIRO-GUIDE IA:	Modules 6-16 ENVIRO-GUIDE IB:	Modules 17 ENVIRO-GUIDE IC:
<ol style="list-style-type: none"> 1. Introduction to guiding in the natural environment 2. Creating a guided nature experience 3. Geology 4. Astronomy 5. Weather and Climate 	<ol style="list-style-type: none"> 6. Basic Ecology 7. Basic Taxonomy 8. Introduction to the Biomes of Southern Africa 9. Botany and Grasse 10. Arthropod 11. Amphibian 12. Reptiles 13. Fish 14. Bird 15. Mammal 16. Animal Behaviour 	<ol style="list-style-type: none"> 17. Conservation management and historical human habitation

MODULE 1 INTRODUCTION TO GUIDING IN THE NATURAL ENVIRONMENT

The objectives

On completion of this module you will:

- Have an understanding of what a professional nature guide does in terms of job function and where s/he fits into the tourism guiding industry.
- Know what the aims of nature guiding are.
- Have an understanding of guiding ethics and how to carry out an ethical guided experience in the natural environment.
- Have been introduced to a set of guiding principles and a code of conduct for guides from both a FGASA and a Dept of Environmental Affairs and Tourism (DEAT) point of view.
- Have an understanding of the legal requirements pertaining to tourism guiding, qualification, certification and registration.

MODULE 2 CREATING A GUIDED NATURE EXPERIENCE

The objectives

On completion of this module you will:

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

MODULE 3 GEOLOGY

The objectives

On completion of this module you will:

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

MODULE 4 ASTRONOMY (NIGHT SKY)

The objectives

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

The objectives

On completion of this module you will:

1. Know the difference between weather and climate
2. Understand the process of cloud formation.
3. 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.
4. Know the different types of local wind conditions that may apply to the area of guiding operation.
5. Be able to describe the four major influences on the South African climate
6. Understand the general Summer and Winter conditions of Southern Africa.

MODULE 6 BASIC ECOLOGY

The objectives

On completion of this module you will:

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

MODULE 7 BASIC TAXONOMY

The objectives

On completion of this module you will:

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

MODULE 8 INTRODUCTION TO THE BIOMES OF SOUTHERN AFRICA

The objectives

On completion of this module you will:

1. Know what a biome is.
2. Be able to name the seven major biomes in Southern Africa.
3. Be able to explain the biomes in terms of the amount of seasonal rainfall and temperature.
4. 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

The objectives

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)

The objectives

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)

The objectives

On completion of this module you will:

- Know the characteristics of the class of amphibians.
- Be able to explain the differences between frogs and toads.
- 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.
- Be able to name and explain the different types of frog calls.
- Be able to identify some of the more common frogs by their calls.

MODULE 12 REPTILES

The objectives

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

The objectives

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

The objectives

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

The objectives

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") of South Africa.

MODULE 16 ANIMAL BEHAVIOUR

The objectives

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

The objectives

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.

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

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