



NATIONAL BOARD FOR TECHNICAL EDUCATION

PLOT B BIDA ROAD, P.M.B. 2239, KADUNA, NIGERIA

HIGHER NATIONAL DIPLOMA

IN

WILDLIFE AND ECOTOURISM MANAGEMENT

CURRICULUM AND COURSE SPECIFICATIONS

JUNE, 2026

PREFACE

The transformation of Nigeria's agricultural sector remains central to the nation's aspirations for sustainable economic growth, food security, job creation, industrial development, and poverty reduction. As agriculture continues to evolve in response to technological advancements, climate change, emerging global market demands, and the need for increased productivity across agricultural value chains, it has become imperative to ensure that curricula in Nigerian tertiary institutions remain relevant, responsive, and aligned with contemporary industry requirements. It is against this backdrop that we embarked on the comprehensive review and modernization of Agricultural curricula for Nigerian tertiary institutions. The review process was designed to address identified skills gaps, integrate emerging technologies and innovations, strengthen entrepreneurship and employability competencies, promote climate-smart agriculture, and align training programmes with the industry expectations and global best practices. The successful execution of this important project was made possible through the invaluable support and commitment of key stakeholders. I wish to express profound appreciation to the Honourable Minister of Education for providing the policy direction and leadership that facilitated this initiative. I also extend sincere gratitude to the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their unwavering support, technical contributions, and commitment to strengthening agricultural education and workforce development in Nigeria. Special appreciation goes to the Tertiary Education Trust Fund (TETFund) for providing the special intervention grant that enabled the conduct of nationwide skills gap analyses and supported the series of national curriculum review and development workshops. The findings from the skills gap studies provided critical evidence and industry insights that guided the review process and ensured that the curricula reflect current and future workforce requirements within the agricultural sector.

I also acknowledge with gratitude the immense contributions of the Sector Skills Council for Agriculture, whose expertise and industry perspectives greatly enriched the curriculum development process. Equally commendable are the efforts of members of the Implementation Committee, resource persons, industry experts, professional bodies, French Embassy in Nigeria, regulatory agencies, academic institutions, employers, development partners, and other stakeholders who devoted their time, knowledge, and experience to the various workshops and technical sessions. The revised curricula represent a collective national effort to produce graduates equipped with relevant knowledge, practical skills, digital competencies, entrepreneurial capabilities, and professional attitudes required to drive innovation and productivity across Nigeria's agronomy, forestry, fisheries and livestock sectors. It is my expectation that Institutions offering these programmes will faithfully implement the curricula and continue to collaborate with industry to ensure sustained relevance and quality. I commend all stakeholders for their dedication and contributions to this landmark achievement and look forward to the successful implementation of these curricula for the benefit of our dear nation.

Professor Idris M. Bugaje, FNSE

Chairman, Implementation Committee

EXECUTIVE SECRETARY

National Board for Technical Education (NBTE)

Kaduna,

Nigeria

ACKNOWLEDGEMENT

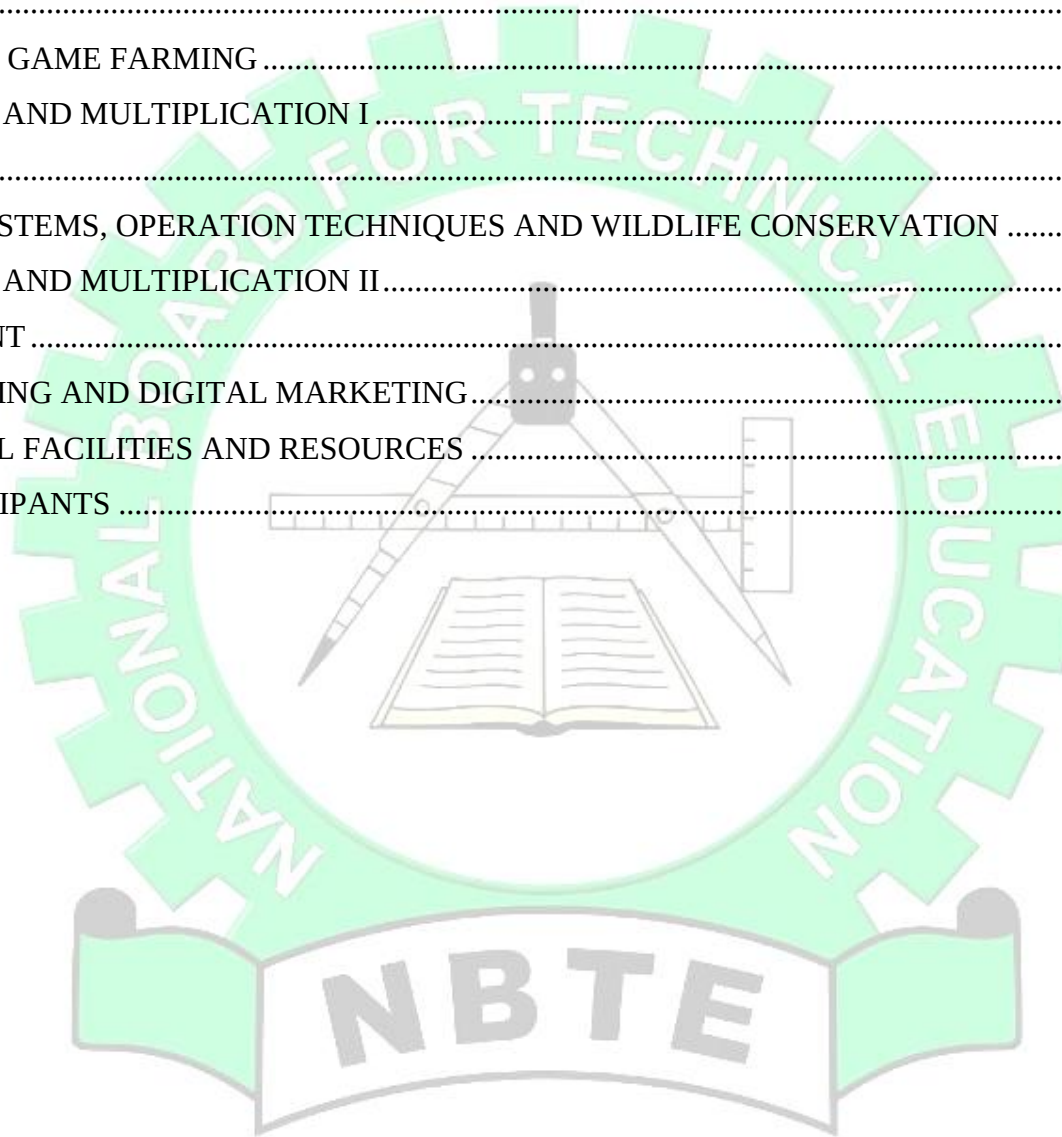
The National Board for Technical Education (NBTE) expresses its profound appreciation to all individuals and organizations whose invaluable support, expertise, and commitment made the successful review and modernization of the Agricultural Education curricula for Nigerian tertiary institutions possible. Our sincere gratitude goes to the Honourable Minister of Education for providing the policy direction and leadership that made this national initiative possible. We also appreciate the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their technical guidance, collaboration, and unwavering commitment to strengthening agricultural education and workforce development in Nigeria. The Board is particularly grateful to the Tertiary Education Trust Fund (TETFund) for providing the special intervention grant that funded the nationwide skills gap analyses, stakeholder engagements, curriculum review exercises, validation meetings, and development workshops. The evidence generated through these studies provided a solid foundation for developing curricula that are relevant, industry-driven, and responsive to national and global agricultural priorities.

Special appreciation is extended to the curriculum specialists, resource persons, academic experts, professional bodies, regulatory agencies, employers, industry practitioners, development partners, and representatives of public and private sector organizations who participated actively in the skills gap studies, technical sessions, validation exercises, and curriculum development workshops. Their diverse expertise and practical insights greatly enriched the quality and relevance of the curricula. We further appreciate the support of the French Embassy in Nigeria and other development partners for their collaboration in promoting excellence and innovation in technical and vocational education within the agricultural sector. Finally, NBTE expresses its gratitude to all tertiary institutions, researchers, facilitators, rapporteurs, technical staff, and administrative personnel whose commitment and hard work contributed to the successful completion of this important national assignment. The Board acknowledges that this achievement is the result of a collective effort and remains confident that the effective implementation of these curricula will contribute significantly to producing competent, innovative, and entrepreneurial graduates capable of advancing sustainable agricultural development, food security, and economic prosperity in Nigeria.

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GENERAL INFORMATION

1.0 TITLE OF THE PROGRAMME:

The title of the programme is Higher National Diploma (HND) in Wildlife and Ecotourism Management

2.0 PROGRAMME GOAL

The Higher National Diploma (HND) programme in Wildlife and Ecotourism Management is designed to produce skilled technologists with adequate knowledge, practical skills, and professional attitudes for effective utilization, processing, management, and conservation of wildlife resources.

3.0 OBJECTIVES OF THE PROGRAMME

At the end of the programme, the diplomates should be able to:

- i. Use modern techniques in domestication of wildlife;
- ii. Establish game farming;
- iii. Propagate extension and ecotourism management;
- iv. Carry out conservation practices and utilize wildlife resources;
- v. Organize recreation activities such as guided tours, sport fishing and other forms of engagement on the conservation areas;
- vi. Develop management plans for protected areas;
- vii. Develop management plans for botanical, zoological gardens, fisheries and aquaculture;
- viii. Employ digital tools and GIS in wildlife management;
- ix. Propagate biodiversity conservation in Nigeria;
- x. Promote sustainable utilization of wildlife resources for economic growth;
- xi. Promote green economy and carbon credit;
- xii. Promote ecotourism development in Nigeria.

4.0 ENTRY REQUIREMENTS

The minimum entry requirements into the Higher National Diploma (HND) in Wildlife and Ecotourism Management include

- i. Five Credit Passes at O level;
- ii. ND Wildlife and Ecotourism Management Qualification (with Lower credit and above) from accredited programme/institution;
- iii. ND Wildlife and Ecotourism Management Certificate at Pass Level with a minimum of two (2) years work experience after graduation
- iv. Must have undergone at least one to two-year mandatory relevant industrial experience to be eligible for admission as the case may be.

5.0 STRUCTURE/DURATION OF THE PROGRAMME

The Programme is structured to last for two (2) academic years (four semesters) of classroom instruction, laboratory work and field practicals.

Each semester shall be for 17 weeks, made up as follows:

- i) 15 contact weeks of teaching (lectures, practicals, fieldwork);
- ii) 2 weeks for tests, registration, and examinations.

6.0 CURRICULUM

The curriculum of the HND Wildlife and Ecotourism management consists of four (4) main components:

- a. General studies/General education courses
- b. Foundation courses
- c. Professional courses
- d. Project work

7.0 STAFFING REQUIREMENTS

7.1 Headship of the Department:

The Head of Department shall have at least HND/BSc/BTechnology and Master's degree in Wildlife Management not below the rank of a Senior Lecturer, He or She must be a registered member of Wildlife Society of Nigeria (WISON) and must have a minimum of twelve (12) years' experience in both academic and industry.

7.2 Core Teaching Staff:

A minimum of four (4) Core Lecturers who should be Lecturer II and above, with minimum qualification in HND/BSc/BTech and Higher Degrees in Wildlife Management, forestry and related programmes.

7.3 Technical Staff

i) Technologist

A Technologist is a highly skilled professional trained at the Higher National Diploma (HND) level. They possess advanced technical and practical knowledge in their field and are capable of supervising operations, managing projects, operating modern equipment, and applying technology to solve practical problems. In agriculture, technologists help in farm management, research support, and the application of improved technologies.

ii) Technician

A Technician is a middle-level manpower trained at the National Diploma (ND) level. Technicians are responsible for carrying out technical tasks, operating tools and equipment, and assisting technologists and professionals in practical activities. In agriculture, they assist in crop production, livestock management, farm maintenance, and data collection.

iii) Farm Assistants

Farm assistants are support workers who help in daily farm operations under supervision. They perform basic practical activities such as planting, weeding, feeding animals, harvesting, cleaning farm tools, and maintaining farm records. They contribute to the smooth running of farm activities and help improve productivity.

7.4 Career Prospects

Holders of the HND can work in public or private establishments or organizations such as:

- i. National Park;
- ii. Game Reserves;
- iii. Wildlife Park;
- iv. Zoological Gardens;
- v. Research Institute;
- vi. Ministry of Environment;
- vii. Universities, Polytechnics and Colleges ;
- viii. Quality Control Office;
- ix. Military/Para-military;
- x. Non-Governmental Organizations (NGOs) etc, or
- xi. Can be a successful entrepreneur in wildlife management based business enterprises.

8.0 CERTIFICATION

A diplomate of this Programme shall be awarded the Higher National Diploma (HND) in Wildlife and Ecotourism Management.

9.0 AWARD OF HIGHER NATIONAL DIPLOMA (HND)

The Higher National Diploma Qualification in Wildlife and Ecotourism Management shall be awarded by the authority of the Academic Board of the institution under the following conditions:

- i) Satisfactory performance in all prescribed course work/assignments, tests/quizzes, workshop practice, laboratory work, field trips, etc.;
- ii) Satisfactory performance in all semester examinations;
- iii) Satisfactory completion of written project/seminar papers;
- iv) Candidate must have completed minimum of 123 to 133 credit units

9.1 Conditions for the Award of HND:

Institutions offering accredited programmes will award the Higher National Diploma to candidates who successfully completed the programme after passing the prescribed course-work, examinations, diploma project etc. Courses shall be graded as follows:

MARK RANGE	LETTER GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50
65% – 69%	B	3.25
60% – 64%	BC	3.00

55% – 59%	C	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25
40% – 44%	E	2.00
Below 40%	F	0.00

9.2 Classification of Diplomas:

Diploma Certificates shall be awarded based on the following classifications:

CGPA	CLASS OF DIPLOMA
CGPA 3.50 and above	Distinction
CGPA 3.00-3.49	Upper Credit
CGPA 2.50-2.99	Lower Credit
CGPA 2.00-2.49	Pass

10.0 ACCREDITATION OF PROGRAMME

The Wildlife and Ecotourism management shall be accredited by the NBTE before the diplomates are awarded the certificates. Details about the process of accrediting a programme for the award of HND are available from the Board's website web.nbte.gov.ng or through correspondence to: The Executive Secretary, NBTE, Plot 'B' Bida Road, P.M.B 2239, Kaduna, Nigeria.

11.0 LOGBOOK

A personal logbook for each course is to be kept by the students. It shall contain all the recordings of the day-to-day, weekly and semester practical works/activities from day one to the end of the programme. This is to be checked, marked appropriately and endorsed by all lecturers concerned at the end of every week.

12.0 FINAL YEAR PROJECTS

Final year students are expected to carry out project work, either on individual or group basis (not more than 2 per group). The project topics should as much as possible be related to the programme and serve as useful tools for further Research and /or Development. Projects should be properly supervised, and their reports well presented. The Institution should develop formats for presenting and grading projects. The formats should be adopted as applied to each stakeholder.

13.0 GUIDANCE NOTES FOR TEACHERS OF THE PROGRAMME

13.1 The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stress the need to introduce the semester credit units which will enable a student, who so wishes, to transfer the units already completed in an institution of similar standard from which he/she is transferring.

13.2 In designing the units, the principle of the modular system by product has been adopted, thus making each of the professional modules, when completed provides the student with technician operative skills, which can be used for employment purposes.

13.3 As the success of the credit unit system depends on the articulation of programmes between the institution and industry, the Curriculum content has been written in behavioral objectives, so that the expected performance of the student is clear to all students who successfully completed some of the courses or the diplomates of the programme. There is a slight departure in the presentation of the performance-based curriculum which requires the conditions under which the performance is expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which the performance can take place and follow that with the criteria for determining an acceptable level of performance. Departmental submission on the final curriculum may be vetted by the Academic Board of the institution. Our aim is to continue to see to it that a solid internal Evaluation system exists in each institution for ensuring minimum standard and quality of education in the programmes offered throughout the polytechnic system.

13.4 The teaching of theory and practical work should, as much as possible, be integrated. Practical exercises, especially those in professional courses and laboratory work should not be taught in isolation from the theory. For each course, there should be a balance of theory to practice in the ratio of 50:50 or 60:40 or the reverse.

14.0 GUIDELINES ON MANDATORY SKILLS QUALIFICATIONS (MSQ)

Please, refer to NBTE guidelines for implementation of MSQ in Polytechnics. This can be downloaded from NBTE website (web.nbte.gov.ng)

CURRICULUM TABLE**Year I - Semester I**

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 301	Use of English III	2	0	0	2	2
2.	MSQ 311	Principles of Quality Assurance Assessment	1	0	1	2	2
3.	AED 315	ICT For Agriculture[ICT4Ag] and Digital Extension System	1	0	3	4	4
4.	TMT 313	Hospitality Operation	1	0	2	3	3
5.	WEM 311	Ethnobotany	1	0	2	3	3
6.	WEM 312	Wildlife Park Engineering	1	0	3	4	4
7.	WEM 313	Fisheries, Aquatic Ecology and Recreation Management	1	0	1	2	2
8.	WEM 314	Wildlife Health, Disease and Biosecurity	1	0	2	3	3
9.	WEM 315	Digital tools and GIS for Wildlife Management	1	0	2	3	3
10.	WEM 316	Natural History of African Mammals	1	0	2	3	3
11.	WEM 317	Wildlife Ecology	1	0	3	4	4
TOTAL			12	0	21	33	33

Year I Semester II

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 302	Communication in English III	2	0	0	2	2
2.	ENT 326	Practice of Entrepreneurship I	2	0	2	4	4
3.	AGR 302	Field Experimentation and Data Analysis	1	0	1	2	2
4.	MSQ 321	Practice of Quality Assurance Assessment	1	0	1	2	2
5.	APT 329	Computer Application in Animal Production	1	0	2	3	3
6.	WEM 321	Wildlife Ecotourism Economics	1	0	2	3	3
7.	WEM 322	Wildlife Management	1	0	3	4	4
8.	WEM 323	Wildlife Conservation Law, Policy and Governance	1	0	2	3	3
9.	WEM 324	Climate Change Impact on Wildlife Conservation	1	0	2	3	3
10.	WEM 325	Advanced Ornithology	1	0	3	4	4
11.	WEM 326	Conservation Finance, Green Economy and Carbon Market	1	0	2	3	3
TOTAL			13	0	20	33	33

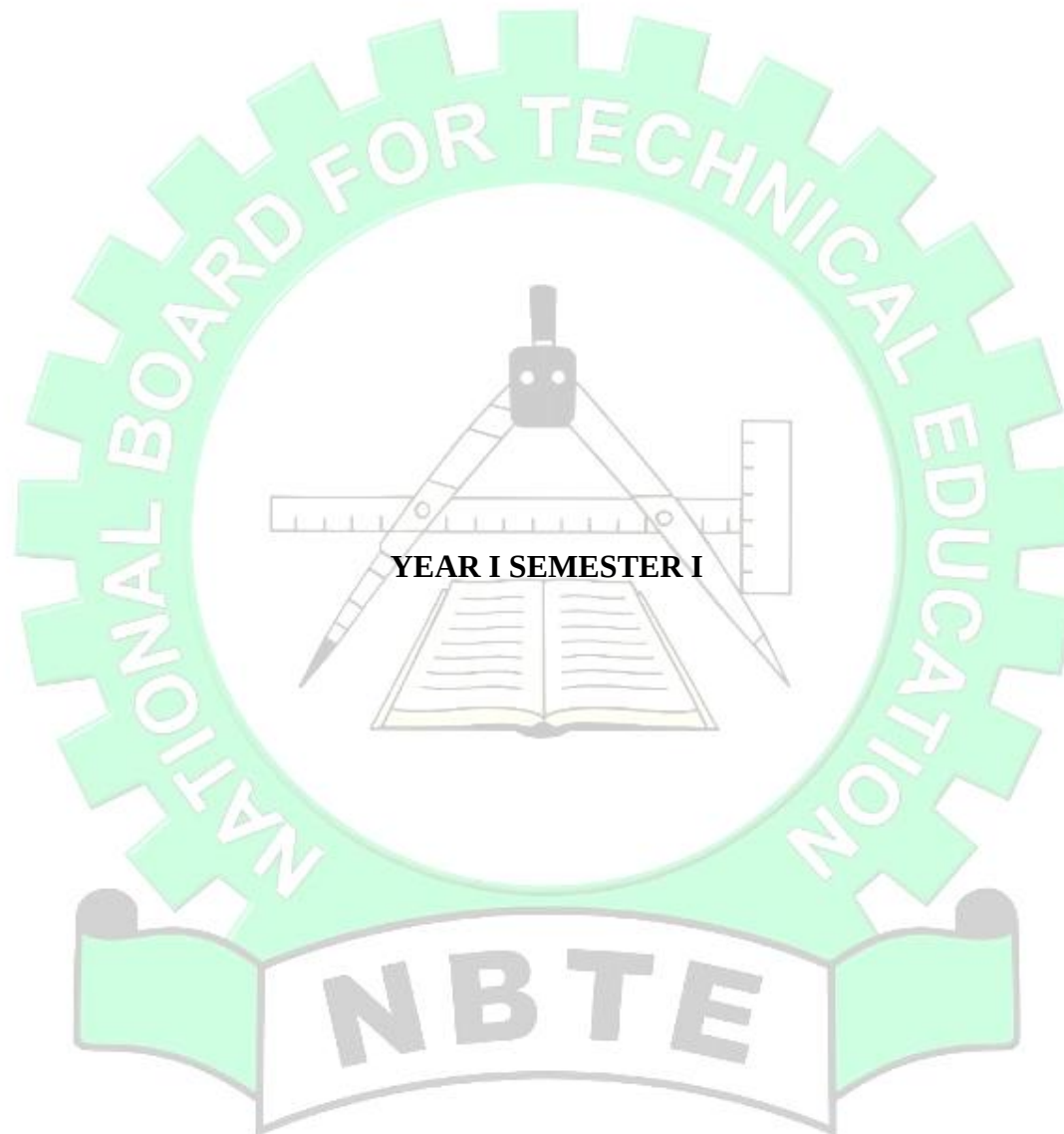
Year II- Semester I

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 401	Communication in English IV	2	0	0	2	2
2.	ENT 416	Practice of Entrepreneurship II	2	0	2	4	4
3.	AGR 401	Research Methodology and Scientific Writing	1	0	1	2	2
4.	WEM 411	Ecotourism Management	1	0	3	4	4
5.	WEM 412	Park Planning, Development and Management	1	0	3	4	4
6.	WEM 413	Range Management	1	0	2	3	3
7.	WEM 414	Ethnozoology	1	0	3	4	4
8.	WEM 415	Wildlife Enterprise and Game Farming	1	0	3	4	4
9.	WEM 416	Wildlife Domestication and Multiplication 1	2	0	2	2	2
TOTAL			12	0	19	29	29

Year II- Semester II

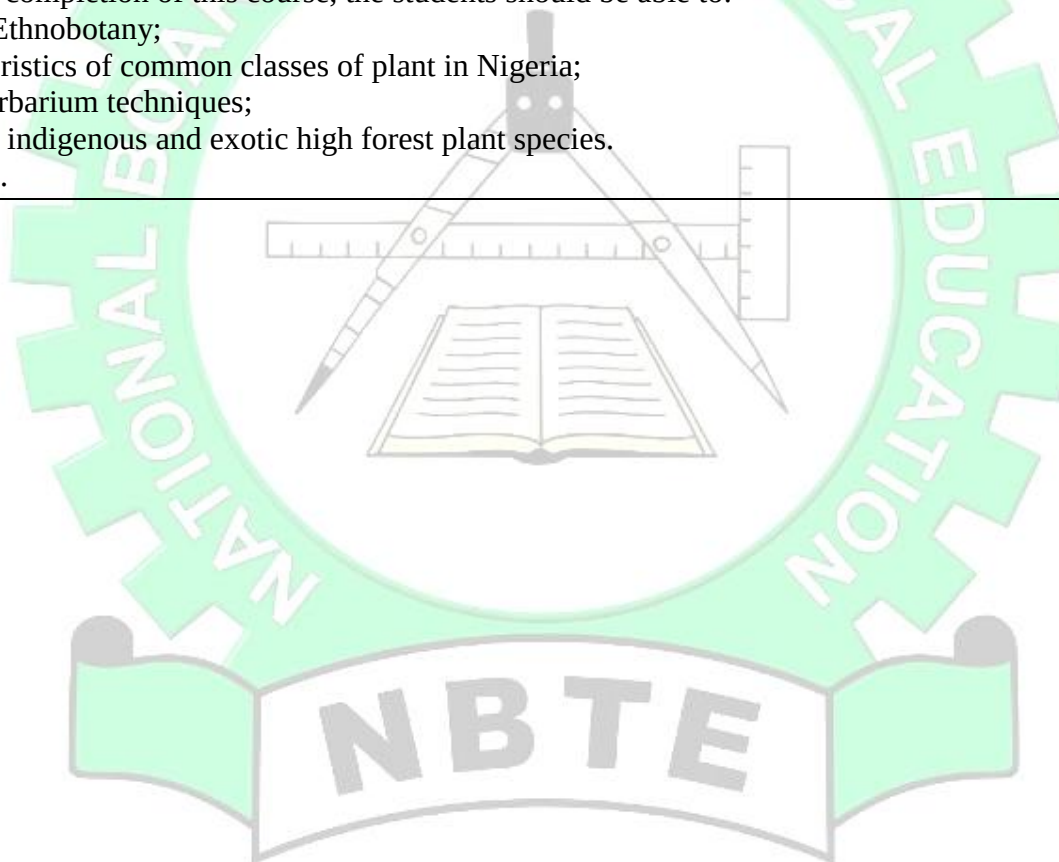
S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	LTM 423	Tourism Operation Management	1	0	2	3	3
2.	AED 424	Rural Sociology	1	0	1	2	2
3.	WEM 421	Integrated Forestry System, Operation Techniques and Wildlife Conservation	1	0	3	4	4
4.	WEM 422	Wildlife Domestication and Multiplication II	2	0	2	4	4
5.	WEM 423	Biodiversity Management	1	0	3	4	4
6.	WEM 424	Wildlife Tourism Branding and Digital Marketing	1	0	3	4	4
7.	WEM 425	Field Trip	0	0	3	3	3
8.	WEM 426	Project	0	0	4	4	4
TOTAL			7	0	21	28	28

Keys: L – Lectures (Hours/week), T – Tutorial (Hours/week), P – Practical (Hours/week), CU – Credit Unit, CH – Contact Hour (Hours/week),



ETHNOBOTANY

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: ETHNOBOTANY	COURSE CODE: WEM 311	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 2 HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills of Ethnobotany		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the principles of Ethnobotany; 2.0 Know the taxonomic characteristics of common classes of plant in Nigeria; 3.0 Understand herbarium and herbarium techniques; 4.0 Understand the importance of indigenous and exotic high forest plant species. 5.0 Know the utilization of plants.		



PROGRAMME HIGHER NATIONAL DIPLOMA IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: ETHNOBOTANY				COURSE CODE: WEM311		CONTACT HOURS:3 HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL:1 HOUR/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills of Ethnobotany.						
GENERAL OBJECTIVE 1.0: Understand the principles of Ethnobotany						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain Ethnobotany. 1.2 Explain botanical terms: i. Taxonomy ii. Classification, iii. Systematic iv. Taxons 1.3 List the aims of taxonomy and classification. 1.4 Explain the aims of taxonomy and classification. 1.5 Differentiate between Additional taxonomy and Numerical taxonomy. 1.6 Explain the concepts of taxonomic characteristics e.g. Phyllotaxis, Taxon	• Discuss Ethnobotany. • Explain botanical terms: – Taxonomy – Classification – Systematic – Taxons • Discuss the aims of taxonomy and classification. • Discuss additional taxonomy and numerical taxonomy. • Explain the concepts of taxonomic characteristics e.g. Phyllotaxis, Taxon	Projector, Journals, Textbooks, Whiteboards, Internet, etc.	• Identify the difference between additional taxonomy and numerical taxonomy using Plant specimens	Guide students to: • Differentiate two types of taxonomy using Plant specimens.	Plant specimens, Video clips, Field guides, Charts.

General Objective 2.0: Know the taxonomic characteristics of common classes of plant in Nigeria						
4-6	2.1 Describe taxonomic characteristics of: - Flower/fruit structures - Geographical distribution, - Leaf arrangement - Bark features 2.2 Describe taxonomic characteristics of plant families: - Leguminaceae, - Gramineae. 2.3 Identify taxonomic keys. 2.4 Describe types of taxonomic keys. 2.5 Identify plant using taxonomic key.	- Discuss taxonomic characteristics of: - Flower/fruit structures - Geographical distribution, - Leaf arrangement - Bark features - Explain taxonomic characteristics of plant families: - Leguminaceae, - Gramineae. - Explain taxonomic keys. - Discuss the types of taxonomic keys. - Explain plant taxonomic key.	Projector, Journals, Textbooks, Whiteboards, Internet, etc.	- Identify plant using taxonomic key. - Construct a simple taxonomic key.	Guide students to: - Identify plant using taxonomic key. - Construct a simple taxonomic key.	Dry plant specimens, Fresh plant specimens.
General Objective 3.0: Comprehend herbarium and herbarium techniques						
7-9	3.1 Define herbarium. 3.2 List the objectives of establishing a herbarium: - Research - Education 3.3 Explain the types of plant specimen. 3.4 Explain the steps in	- Explain herbarium. - Discuss the objectives of establishing a herbarium: - Research - Education - Discuss the types of plant specimen.	Projector, Journals, Textbooks, Whiteboards, Internet, etc.	- Identify the steps in acquiring a herbarium specimen: ➤ Collection ➤ Drying ➤ Mounting ➤ Cataloguing.	Guide students to identify the steps in acquiring a herbarium specimen: ➤ Collection ➤ Drying ➤ Mounting ➤ Cataloguing.	Cardboard paper, Strings, Gum, Preservatives (e.g. Camphor).

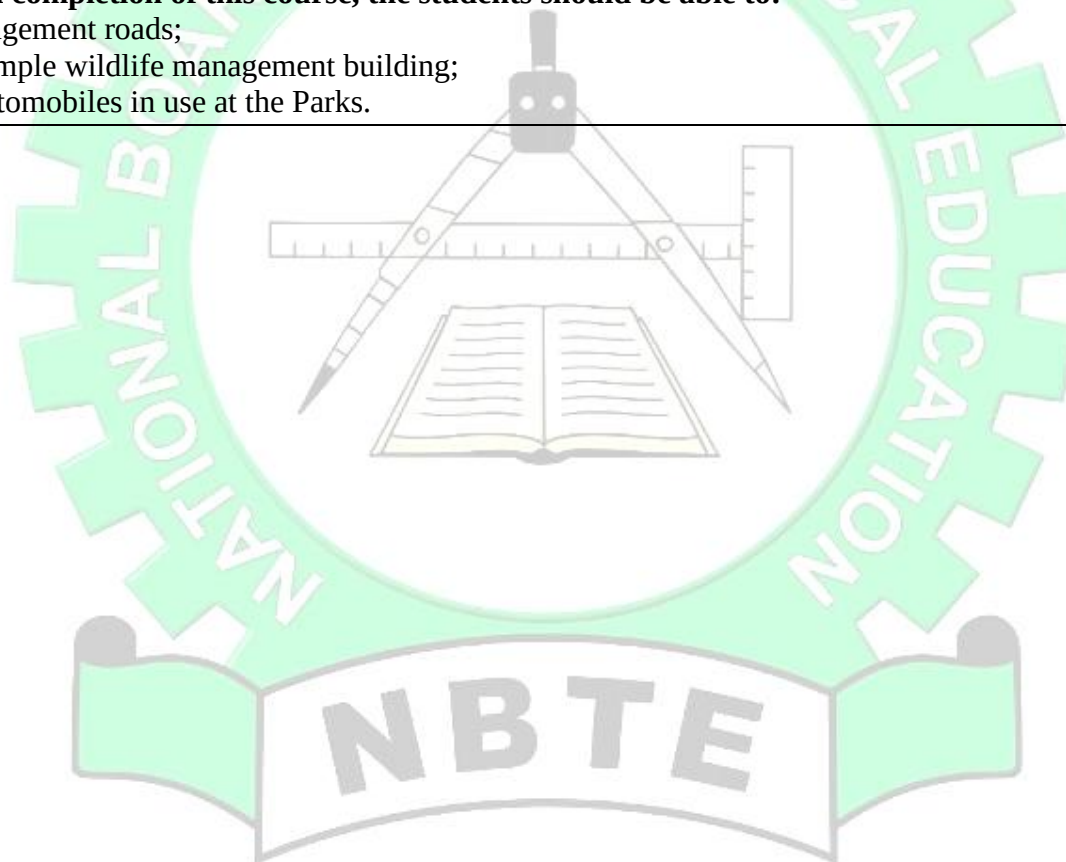
	acquiring a herbarium specimen: i. Collection ii. Drying iii. Mounting iv. Cataloguing.	• Explain the steps in acquiring a herbarium specimen: – Collection – Drying – Mounting – Cataloguing.				
General Objective 4.0: Understand the importance of indigenous and exotic forest and savannah plant species						
10-12	4.1 Explain indigenous plant species: i. Detarium microcarpum ii. Annona senegalensis iii. Guiera senegalensis iv. Anogeisus leiocarpus. 4.2 Explain exotic plant species: i. Terminalia catappa ii. Cordia nigerica iii. Eucalyptus camaldulensis iv. Annona muricata etc 4.3 Explain the characteristics of families: i. Rubiaceae ii. Malvaceae iii. Verbenaceae, Bignoniaceae iv. Acaciaceae etc. 4.4 Describe the characteristics of: i. Conifers	Explain indigenous plant species: – Detarium microcarpum – Annona senegalensis – Guiera senegalensis – Anogeisus leiocarpus. • Discuss exotic [plant species: – Terminalia catappa – Cordia nigerica – Eucalyptus camaldulensis – Annona muricata etc • Discuss the characteristics of families: – Rubiaceae – Malvaceae – Verbenaceae – Bignoniaceae – Acaciaceae etc.	Projector, Journals, Textbooks, Whiteboards, Internet, etc.	•Identify physically exotic members represented in Nigeria/Savanna and forest areas. •Identify morphological features and ecological requirements of exotic plant species in 4.2.	Guide students to: •Take students to Savanna and forest vegetation zones to identify physically exotic members represented in Nigeria/Savanna and forest areas •Take students to different vegetation zones to identify morphological features and ecological requirements of exotic plant species	Vehicle, Tour guides.

	ii. Gnetales iii. Myrtaceae. 4.5 Explain physically exotic members in 4.2 represented in Nigeria/Savanna and forest areas. 4.6 Explain morphological features and ecological requirements of Eucalypts with respect to Nigerian forest land. 4.7 Explain morphological features and ecological requirements of Terminalia catappa with respect to savannah land.	• Discuss the characteristics of: – Conifers – Gnetales – Myrtaceae • Explain physically exotic members in 4.2 represented in Nigeria/Savanna and forest areas. • Discuss morphological features and ecological requirements of Eucalypts with respect to Nigerian forest land. • Discuss morphological features and ecological requirements of Terminalia catappa with respect to savannah land.				
General Objective 5.0: Know the utilization of plants						
13-15	5.1 Explain ethnobotanical uses of plants: - Construction - Medicinal - Food - Crafts - Research - Tannin and dye etc. 5.2 List medicinal uses of	• Explain ethnobotanical uses of plants: – Construction – Medicinal – Food – Crafts – Research – Tannin and dye etc. • Discuss medicinal uses	Projector, Journals, Textbooks, Whiteboards, Internet, etc.	• Identify physically the plants species listed in 5.2	Guide students to: • Collect different species of flora of ethnobotanical values. • Take students to the botanical garden or protected areas to identify various flora species and their values.	Botanical gardens, Protected areas, Tour guides.

	the following flora species: ➤ Vernonia amygdalina ➤ Diospyros sp ➤ Vitallaria paradoxa ➤ Khaya senegalensis ➤ Azadirachta indica ➤ Terminalia spp. 5.3 Explain the medicinal uses of the species in 5.2 5.4 Explain physically the medicinal plants listed in 5.2 5.5 Explain the part use in 5.2	of the following flora species: ➤ Vernonia amygdalina ➤ Diospyros sp ➤ Vitallaria paradoxa ➤ Khaya senegalensis ➤ Azadirachta indica ➤ Terminalia spp. • Explain the medicinal uses of the species in 5.2. • Discuss physically the medicinal plants listed in 5.2. • Explain the part use in 5.2.			
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%					

WILDLIFE PARK ENGINEERING

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: WILDLIFE PARK ENGINEERING	COURSE CODE: WEM 312	CONTACT HOURS: 4 HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1 HOUR/WEEK
YEAR: 1 SEMESTER: 1	PRE-REQUISITE:	PRACTICAL: 3 HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills in wildlife field works		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know types of wildlife management roads; 2.0 Know the construction of simple wildlife management building; 3.0 Know the various simple automobiles in use at the Parks.		



PROGRAMME: HIGHER NATIONAL DIPLOMA [HND]IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: WILDLIFE PARK ENGINEERING				COURSE CODE: WEM 312		CONTACT HOURS:4 HOURS/WEEK
				CREDIT UNIT:4		THEORETICAL:1 HOURS/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in wildlife field works						
GENERAL OBJECTIVE 1.0: Know types of wildlife management roads;						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-4	1.1 Outline the scope of wildlife management engineering 1.2 Explain the need to study field engineering 1.3 Describe types of wildlife management roads. 1.4 Explain the types of road networks in National Parks and game reserves. 1.5 Explain normal cross-section of road 1.6 Explain the following terms in field engineering; i. Ideal gradient ii. Ruling gradient iii. Steep gradient	• Explain the scope of wildlife management engineering. • Explain the need to study field engineering. • Discuss types of wildlife management roads. • Explain the types of road networks in National Parks and game reserves. • Explain normal cross-section of road. • Discuss the following terms in field engineering; – Ideal gradient	Projector, Journals, Textbooks, Whiteboards, etc.	• Visit a National Park/game reserves to identify types of roads. • Draw normal cross-section of road. • Perform calculations and road planning. • Carry out simple mixing of materials to form concrete samples. • Test the strength and stress of concrete samples.	Guide Students to: • Visit a National Park/game reserves to identify types of roads. • Draw normal cross-section of road. • Calculate gradient and road planning. • Carry out simple mixing of materials to form concrete samples. Test the strength and	National Park, Field notebook, Road construction sites, Spade, Shovel River sand, Gravel Water, Wheel barrow Loads of specified weights, Sand, Cement Iron-rods.

	iv. Road planning v. Road costing vi. Road alignment 1.7 Outline the factors in road alignment, alignment procedure and road designs. 1.8 Outline steps in road construction. 1.9 Explain the following terms: i. Drainage ii. Soil stabilization iii. Concrete iv. Aggregate v. mixing 1.10 Explain types of concrete: i. Plain ii. Reinforced iii. Pre-stressed. 1.11 Explain Strength and Curing of concrete 1.12 Explain principles of pre-stressed concrete. 1.13 Explain importance and types of culverts: i. Stone ii. Timber iii. Box iv. Arched v. Flood	– Ruling gradient – Steep gradient – Road planning – Road costing – Road alignment. • Discuss the factors in road alignment, alignment procedure and road designs. • Explain steps in road construction. • Discuss the following terms: – Drainage – Soil stabilization – Concrete – Aggregate – Mixing. • Discuss types of concrete: – Plain – Reinforced – Pre-stressed. • Explain Strength and Curing of concrete. • Explain principles of pre-stressed concrete. • Describe importance and types of culverts: – Stone		Beams, shear force and bending moments	stress of concrete samples. Construct beams, shear force and bending moments	
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	vi. Masonry siphon vii. Explain types of bridges: Suspension, Cantilever 1.14 Explain beams, shear force and bending moments; identify and solve problems	– Timber – Box – Arched – Flood – Masonry siphon. • Discuss the types of bridges: Suspension, Cantilever. • Discuss beams, shear force and bending moments; identify and solve problems.				
General Objective 2.0: Know the construction of simple wildlife management building						
5-9	2.1 Describe building materials: stone, bricks, blocks, tiles, timber. 2.2 Explain foundation and foundation precautions. 2.3 List the factors in choosing site for building. 2.4 Explain the types of walls and floors. 2.5 Explain the types of roofs: Flat/terraced, Arched, Pent-roofs. 2.6 Explain roof members. 2.7 Explain the following: Pitch, Roofing materials and wall plates. 2.8 Describe the Roof of a	• Explain building materials: stone, bricks, blocks, tiles, timber. • Explain foundation and foundation precautions. • Discuss the factors in choosing site for building. • Describe the types of walls and floors. • Explain the types of roofs: Flat/terraced, Arched, Pent-roofs. • Explain roof members. • Discuss the	Projector, Journals, Textbooks, Whiteboards, etc.	• Identify roof members. • Draw roof members. • Draw a pitch, roofing material and wall plates. • Draw roof of a simple house.	Guide students to: • Identify roof members. • Draw roof members. • Draw a pitch, roofing material and wall plates. • Draw roof of a simple house.	Wood, Roofing nails, Raffia, Sheets, Cement, Sand, Gravels, Building tools, Carpentry tools.

	simple house.	following: Pitch, Roofing materials and wall plates. • Explain the Roof of a simple house.				
General Objective 3.0: Know the various simple automobile in use at the park						
10-15	3.1 Explain simple automobiles used in wildlife management. 3.2 Describe the parts of each automobile in 3.1. 3.3 Explain the maintenance of automobiles in 3.1.	• Explain simple automobiles used in wildlife management. • Describe the parts of each automobile in 3.1. • Explain the maintenance of automobiles in 3.1.	Projector, Journals, Textbooks, Whiteboards, etc.	• Carry out repairs of minor faults in automobiles use at the park.	Guide Students to: • Carry out repairs of minor faults in automobiles.	Mechanical workshop.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

FISHERIES, AQUATIC ECOLOGY AND RECREATION MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: FISHERIES, AQUATIC ECOLOGY AND RECREATION MANAGEMENT	COURSE CODE: WEM 313	CONTACT HOURS: 2 HOURS/WEEK
	CREDIT UNIT: 2	THEORETICAL: 1HOUR/WEEK
YEAR: 1 SEMESTER:1	PRE-REQUISITE:	PRACTICAL: 1HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills to manage fisheries resources, understand aquatic ecosystems, and promote sustainable recreational and ecotourism practices in aquatic environments.		
GENERAL OBJECTIVES: At the end of the course, students should be able to: 1.0 Understand the principles and practices of fisheries management, aquatic ecology, and recreational resource management; 2.0 Know the structure, functions, and ecological processes of freshwater, marine, and wetland ecosystems; 3.0 Know fish species, aquatic organisms, and their habitats for sustainable management and conservation; 4.0 Understand appropriate techniques for fisheries production, resource assessment, and aquatic ecosystem monitoring; 5.0 Understand the impacts of human activities, environmental changes, and pollution on aquatic ecosystems and fisheries resources; 6.0 Understand sustainable strategies for the conservation, management, and utilization of fisheries and aquatic resources; 7.0 Know ecotourism, recreational activities, and community participation in the sustainable management of fisheries and aquatic ecosystems.		

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND]IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: FISHERIES, AQUATIC ECOLOGY AND RECREATION MANAGEMENT				COURSE CODE: WEM313		CONTACT HOURS: 2HOURS/WEEK
				CREDIT UNIT:2		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 1HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in manage fisheries resources, understand aquatic ecosystems, and promote sustainable recreational and ecotourism practices in aquatic environments.						
GENERAL OBJECTIVE 1.0; Understand the principles and practices of fisheries management, aquatic ecology, and recreational resource management.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Define fisheries management and aquatic ecology. 1.2 Explain principles of sustainable fisheries management. 1.3 Describe recreational resource management in aquatic environments. 1.4 Distinguish capture fisheries from culture fisheries. 1.5 Explain the relationship between fisheries resources and aquatic	• Discuss fisheries management and aquatic ecology. • Discuss principles of sustainable fisheries management. • Explain recreational resource management in aquatic environments. • Distinguish capture fisheries from culture fisheries. • Explain the relationship between	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Identify common fisheries management activities in selected aquatic environments. • Observe ecological features of freshwater or wetland systems. • Record examples of capture fisheries aquaculture and recreational uses. • Prepare a simple profile of an aquatic resource site. • Compare fisheries practices observed in selected field locations. • Present findings on fisheries and aquatic resource	Guide Students to: • Identify common fisheries management activities in selected aquatic environments. • Observe ecological features of freshwater or wetland systems. • Record examples of capture fisheries aquaculture and recreational uses. • Prepare a simple profile of an aquatic	Camera, GPS device, Smartphones, Boots, Life jacket.

	ecosystems.	fisheries resources and aquatic ecosystems.		management.	resource site. • Compare fisheries practices observed in selected field locations. • Present findings on fisheries and aquatic resource management.	
GENERAL OBJECTIVE 2.0: Know the structure, functions, and ecological processes of freshwater, marine, and wetland ecosystems.						
3-4	2.1 Explain the major types of aquatic ecosystems. 2.2 Describe structural components of freshwater marine and wetland systems. 2.3 Explain ecological processes in aquatic environments. 2.4 Explain food chains and energy flow in aquatic ecosystems. 2.5 Explain the ecological importance of wetlands and water bodies.	• Explain the major types of aquatic ecosystems. • Discuss structural components of freshwater marine and wetland systems. • Discuss ecological processes in aquatic environments. • Explain food chains and energy flow in aquatic ecosystems. • Discuss the ecological importance of wetlands and water bodies.	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Classify aquatic ecosystems • Identify ecosystems observed during field trip • Identify visible components of freshwater or wetland systems. • Observe food-web relationships in selected aquatic habitats. • Record water-body features relevant to ecosystem functioning. • Sketch a simple aquatic ecosystem structure. • Present field observations on aquatic ecosystem processes.	Guide student to: • Classify aquatic ecosystems. • Identify ecosystems observed during field visible components of freshwater or wetland systems. • Observe food-web relationships in selected aquatic habitats. • Record water-body features relevant to ecosystem functioning. • Sketch a simple aquatic ecosystem structure. • Present field observations on	Field guides Mapping, Sketch sheets, Pencils, Markers, Life jacket.

					aquatic ecosystem processes.	
General Objective 3.0: Know fish species, aquatic organisms, and their habitats for sustainable management and conservation.						
5-6	3.1 Describe common fish species and aquatic organisms. 3.2 Explain habitat requirements of selected aquatic species. 3.3 Differentiate fish habitats based on water conditions and vegetation. 3.4 Explain factors influencing fish distribution and abundance. 3.5 Explain conservation needs of aquatic species and habitats.	• Discuss common fish species and aquatic organisms. • Explain habitat requirements of selected aquatic species. • Discuss fish habitats based on water conditions and vegetation. • Discuss the factors influencing fish distribution and abundance. • Explain conservation needs of aquatic species and habitats.	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Identify selected fish species using field guides. • Identify aquatic organisms in sampled water bodies. • Observe habitat features supporting aquatic species. • Record species and habitat information in field sheets. • Prepare a simple species-habitat inventory. • Present conservation concerns from field observations.	Guide students to: • Identify selected fish species using field guides. • Identify aquatic organisms in sampled water bodies. • Observe habitat features supporting aquatic species. • Record species and habitat information in field sheets. • Prepare a simple species-habitat inventory. • Present conservation concerns from field observations.	Dip nets Buckets Sample bottles Field guides Inventory sheets Checklists Labels Gloves Life jacket.
General Objective 4.0: Understand appropriate techniques for fisheries production, resource assessment, and aquatic ecosystem monitoring.						
7-8	4.1 Explain techniques for fisheries production and management. 4.1 Describe methods for fish stock assessment. 4.2 Explain aquatic monitoring indicators and procedures.	• Describe techniques for fisheries production and management. • Discuss the methods for fish stock assessment.	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector	• Demonstrate basic fish sampling procedures under supervision. • Measure selected water-quality parameters in field conditions. • Use simple assessment tools	Guide students to: • Demonstrate basic fish sampling procedures under supervision. • Measure selected water-quality	Dip nets, Cast net, Measuring board, Weighing scale, Buckets, pH meter,

	4.3 Explain basic water-quality parameters for fisheries management. 4.4 Explain the suitability of monitoring techniques for selected water bodies.	• Discuss aquatic monitoring indicators and procedures. • Discuss the basic water-quality parameters for fisheries management. • Discuss the suitability of monitoring techniques for selected water bodies.	Slides, etc.	for aquatic resource monitoring. • Record fisheries and water-quality data accurately. • Prepare a monitoring summary for selected water bodies. • Present findings from fisheries resource assessment.	parameters in field conditions. • Use simple assessment tools for aquatic resource monitoring. • Record fisheries and water-quality data accurately. • Prepare a monitoring summary for selected water bodies. • Present findings from fisheries resource assessment.	Thermometer, Secchi disk.
General Objective 5.0: Understand the impacts of human activities, environmental changes, and pollution on aquatic ecosystems and fisheries resources.						
9-10	5.1 Explain human activities affecting aquatic ecosystems. 5.2 Explain pollution sources and their effects on fisheries resources. 5.3 Explain environmental changes affecting aquatic habitats. 5.4 Explain field indicators of aquatic ecosystem	• Discuss human activities affecting aquatic ecosystems. • Discuss pollution sources and their effects on fisheries resources. • Describe environmental changes affecting aquatic habitats. • Explain field indicators of aquatic	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Inspect selected aquatic sites for pollution signs. • Record visible human activities affecting water bodies. • Identify indicators of habitat degradation and water pollution. • Compare affected and less-affected aquatic locations. • Prepare an impact aquatic checklist.	Guide students to: • Inspect selected aquatic sites for pollution signs. • Record visible human activities affecting water bodies. • Identify indicators of habitat degradation and water pollution. • Compare affected and less-affected aquatic locations.	Work plans, Guidelines, Maps, Registers, Cards, Markers, Laptop.

	degradation. 5.5 Describe mitigation measures for aquatic pollution and habitat loss.	ecosystem degradation. • Discuss mitigation measures for aquatic pollution and habitat loss.			• Prepare an impact aquatic checklist.	
General Objective 6.0: Understand sustainable strategies for the conservation, management, and utilization of fisheries and aquatic resources.						
11-12	6.1 Describe strategies for conserving fisheries and aquatic resources. 6.2 Explain sustainable utilization principles for aquatic resources. 6.3 Explain management options for recreational fisheries. 6.4 Describe conservation strategies for ecological and community relevance. 6.5 Explain sustainable aquatic resources management strategies.	• Discuss strategies for conserving fisheries and aquatic resources. • Explain sustainable utilization principles for aquatic resources. • Discuss management options for recreational fisheries. • Explain conservation strategies for ecological and community relevance. • Discuss sustainable aquatic resources management strategies.	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Develop a simple conservation strategy for a selected water body. • Prepare sustainable use guidelines for fisheries resources. • Design recreational fisheries management actions. • Identify stakeholders for aquatic resource management. • Prepare a simple aquatic resource management plan. • Present the plan for peer and instructor review.	• Guide students to: • Develop a simple conservation strategy for a selected water body. • Prepare sustainable use guidelines for fisheries resources. • Design recreational fisheries management actions. • Identify stakeholders for aquatic resource management. • Prepare a simple aquatic resource management plan. • Present the plan for peer and instructor review.	Work plans, Guidelines, Maps, Registers, Cards, Markers, Laptop.
General Objective 7.0: Know ecotourism, recreational activities, and community participation in the sustainable management of fisheries and aquatic						

ecosystems.						
13-15	7.1 Describe aquatic ecotourism and recreational fisheries activities. 7.2 Explain the role of communities in aquatic resource management. 7.3 Explain opportunities for ecotourism in aquatic environments. 7.4 Explain community participation methods for aquatic conservation. 7.5 Explain strategies for sustainable aquatic recreation.	• Discuss aquatic ecotourism and recreational fisheries activities. • Describe the role of communities in aquatic resource management. • Discuss the opportunities for ecotourism in aquatic environments. • Outline community participation methods for aquatic conservation. • Discuss strategies for sustainable aquatic recreation.	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Identify aquatic recreation opportunities in selected sites. • Conduct simple community discussions on aquatic resource use. • Prepare a stakeholder participation plan for aquatic management. • Design visitor-use guidelines for recreational aquatic sites. • Develop an ecotourism activity outline for a selected water body.	Guide students to: • Identify aquatic recreation opportunities in selected sites. • Conduct simple community discussions on aquatic resource use. • Prepare a stakeholder participation plan for aquatic management. • Design visitor-use guidelines for recreational aquatic sites. • Develop an ecotourism activity outline for a selected water body.	Notebooks, Pens, Clipboards, Interview guides, Templates, Maps, Visitor guides, Life jacket, First aid.

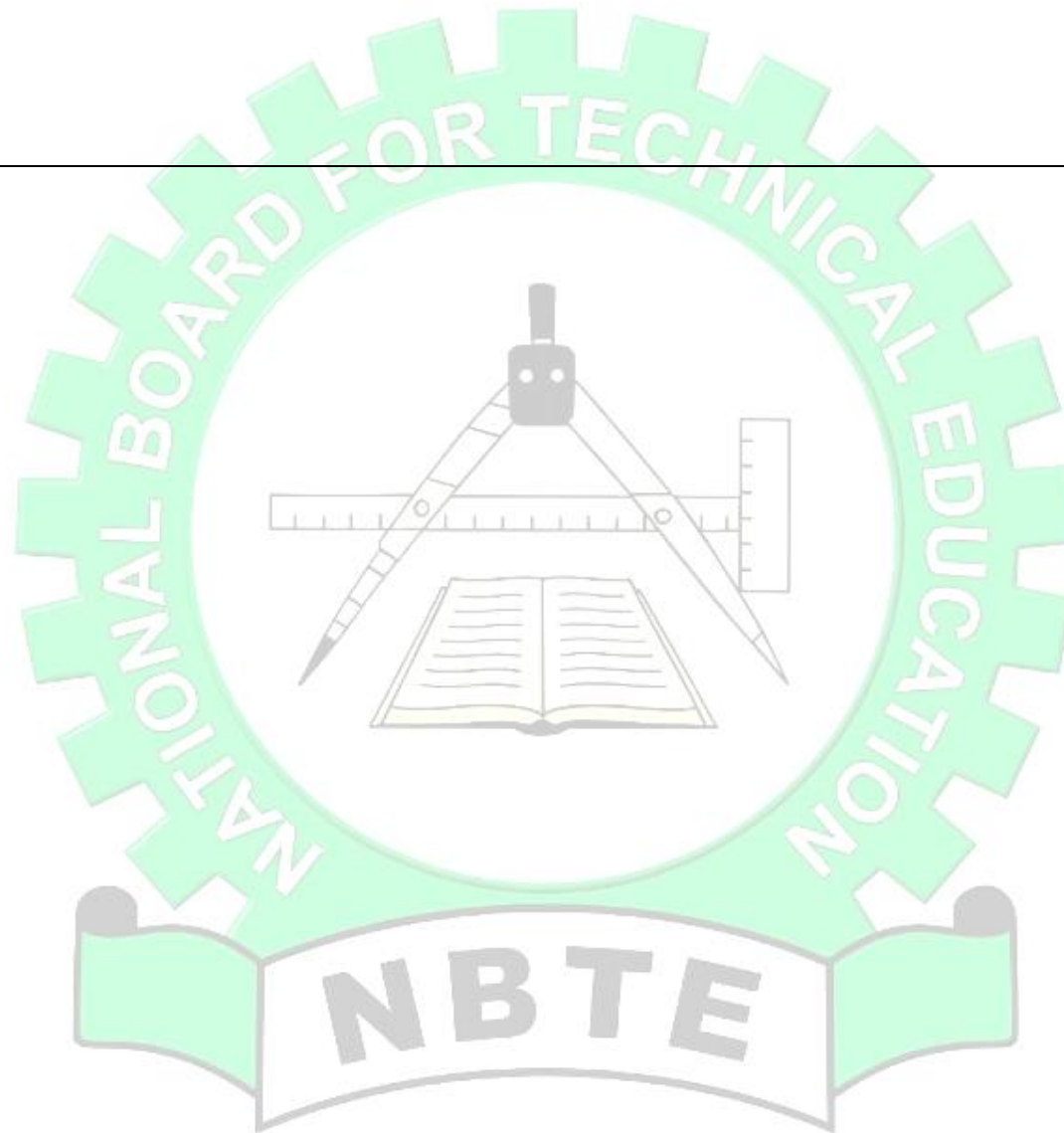
COURSE ASSESSMENT:

Course Work: 10%

Test/Assignments: 10%

Practical: 40%

Examination: 40%



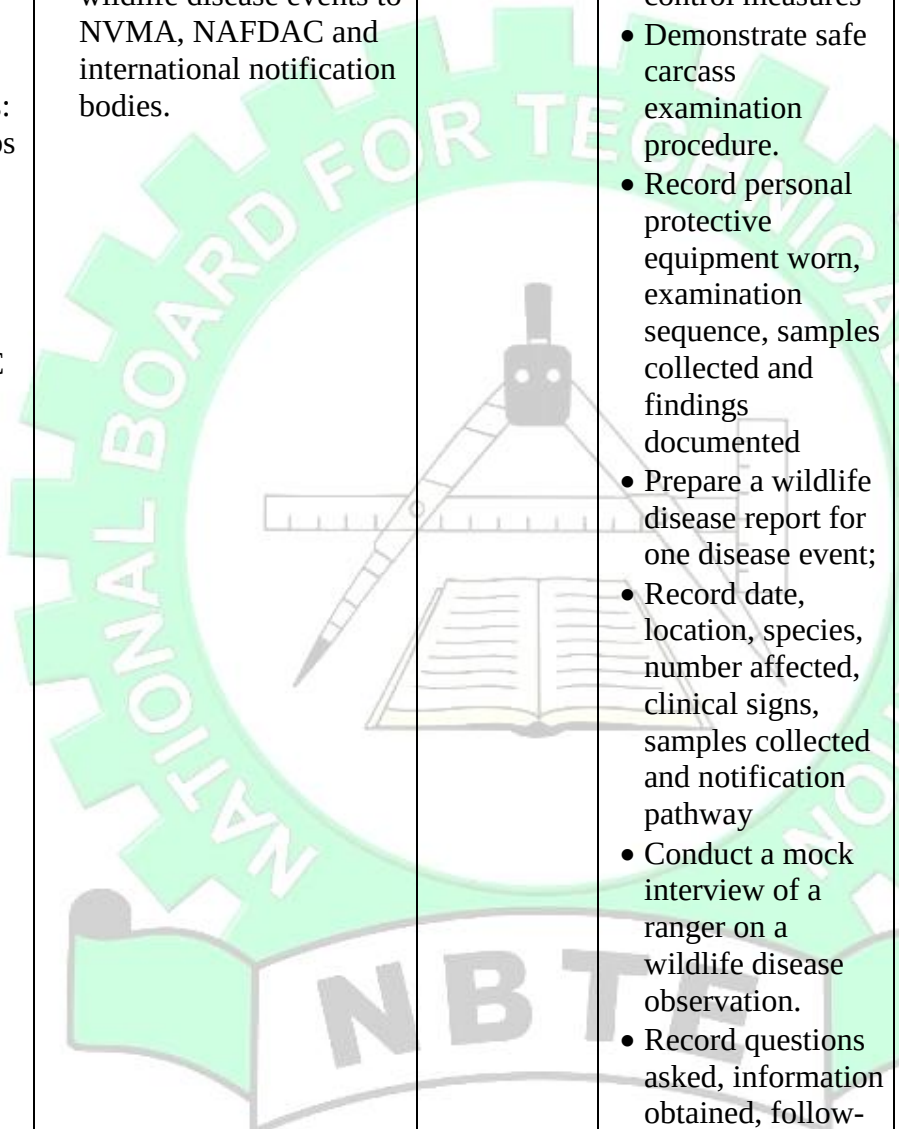
WILDLIFE HEALTH, DISEASE AND BIOSECURITY

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: WILDLIFE HEALTH, DISEASE AND BIOSECURITY	COURSE CODE: WEM 314	CONTACT HOURS: 3HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL:1 HOUR/WEEK
YEAR: 1 SEMESTER:1	PRE-REQUISITE:	PRACTICAL: 2HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills in wildlife health management, disease surveillance, biosecurity and One Health approaches for wildlife conservation and safe ecotourism operations		
GENERAL OBJECTIVES: On completion of this course, the student should be able to: 1.0 Understand wildlife health concepts and common wildlife diseases; 2.0 Know wildlife disease surveillance and outbreak investigation; 3.0 Understand One Health principles in wildlife, domestic animal and human health interfaces; 4.0 Apply wildlife biosecurity systems for conservation and ecotourism enterprises; 5.0 Apply wildlife first aid, capture and immobilization safety; 6.0 Know zoonotic disease prevention and safe wildlife handling practices.		

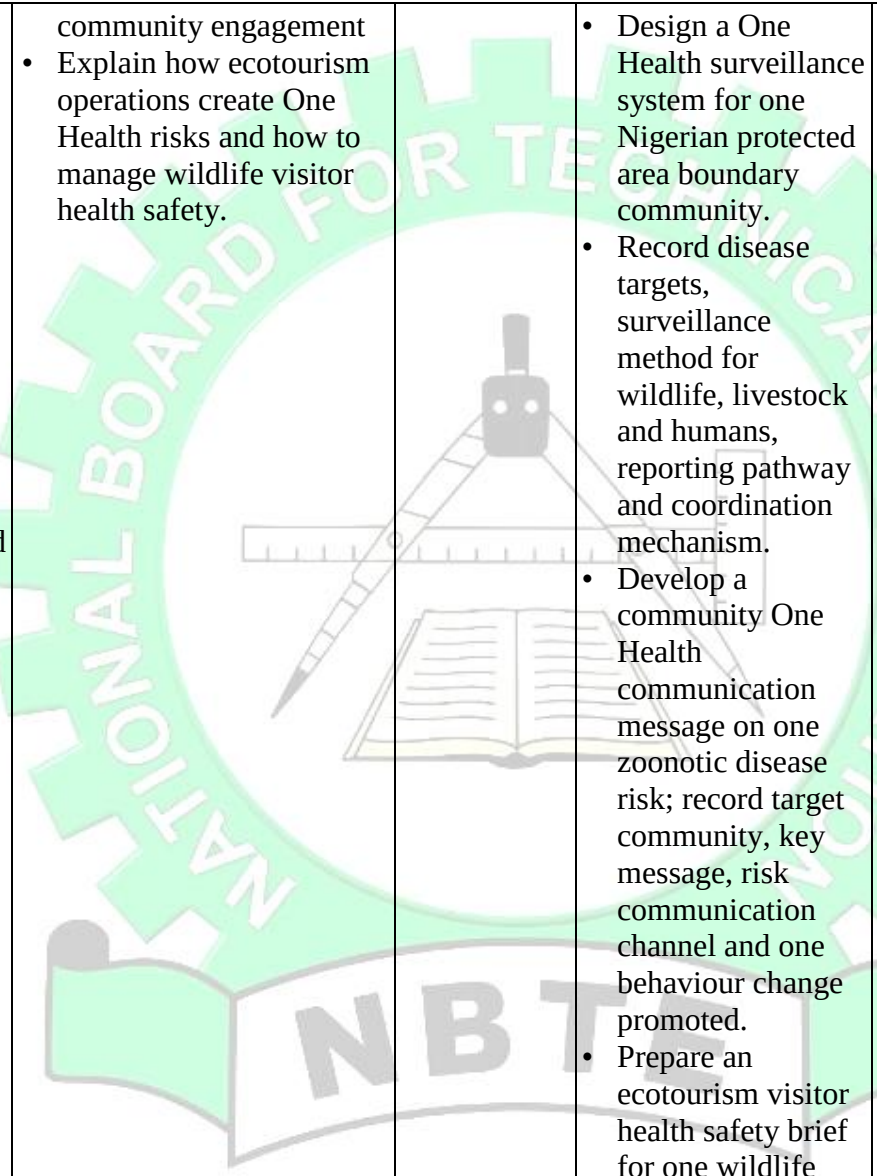
PROGRAMME: HIGHER NATIONAL DIPLOMA [HND]IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: WILDLIFE HEALTH, DISEASE AND BIOSECURITY			COURSE CODE: WEM 314		CONTACT HOURS: 3HOURS/WEEK	
			CREDIT UNIT:3		THEORETICAL: 1HOUR/WEEK	
YEAR: I SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 2HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in wildlife health management, disease surveillance, biosecurity and One Health approaches for wildlife conservation and safe ecotourism operations.						
GENERAL OBJECTIVE 1.0; Understand wildlife health concepts and common wildlife diseases;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1 – 2	1.1 Describe wildlife health concepts: morbidity, mortality, population health indicators and disease ecology in wildlife systems 1.2 Explain the major infectious diseases of Nigerian wildlife: ➤ Anthrax ➤ Rinderpest ➤ Foot-and-mouth disease ➤ Avian influenza ➤ Ebola ➤ Lassa fever ➤ Newcastle disease 1.3 Describe non-	• Explain wildlife health concepts: morbidity, mortality, population health indicators and disease ecology in wildlife systems • Discuss the major infectious diseases of Nigerian wildlife: ➤ Anthrax ➤ Rinderpest ➤ Foot-and-mouth disease ➤ Avian influenza ➤ Ebola ➤ Lassa fever ➤ Newcastle disease. • Discuss non-infectious	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Identify signs of disease or poor health in ten wildlife photographs or specimens; record species, observed signs, probable diagnosis and one recommended management action for each. • Prepare a wildlife disease fact sheet for one major Nigerian wildlife disease; record disease name, causative agent,	Guide students to: • Identify signs of disease or poor health in ten wildlife photographs or specimens; record species, observed signs, probable diagnosis and one recommended management action for each • Prepare a wildlife disease fact sheet for one major Nigerian wildlife disease; record disease name,	Wildlife health photographs and specimens, Nigerian wildlife disease fact sheet template, Nigerian wildlife disease hotspot map, Habitat degradation and disease linkage guide, Projector, PPE, Smartphones.

	infectious health problems in wildlife: nutritional deficiencies, toxicoses, parasites and trauma. 1.4 Explain how habitat degradation, climate change and human encroachment increase wildlife disease risk in Nigeria 1.5 Describe the principles of diseases management in free-ranging wildlife populations	health problems in wildlife: nutritional deficiencies, toxicoses, parasites and trauma. • Discuss how habitat degradation, climate change and human encroachment increase wildlife disease risk in Nigeria. • Discuss the principles of diseases management in free-ranging wildlife populations	host species, transmission route, clinical signs, diagnosis and control • Map the major wildlife disease hotspots in Nigeria; record disease, affected area, species affected, frequency of outbreaks and one prevention recommendation per hotspot • Assess how habitat degradation at one site increases wildlife disease risk; record three degradation factors, disease risk mechanism for each and one habitat restoration recommendation • Present the wildlife disease fact sheet to the class; explain transmission,	causative agent, host species, transmission route, clinical signs, diagnosis and control • Map the major wildlife disease hotspots in Nigeria; record disease, affected area, species affected, frequency of outbreaks and one prevention recommendation per hotspot • Assess how habitat degradation at one site increases wildlife disease risk; record three degradation factors, disease risk mechanism for each and one habitat.	
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				clinical signs and two practical control measures for park managers.		
GENERAL OBJECTIVE 2.0: Know wildlife disease surveillance and outbreak investigation;						
3 – 4	2.1 Describe wildlife disease surveillance systems: passive surveillance, active surveillance, syndromic surveillance and WAHIS reporting in Nigeria 2.2 Explain how to design a wildlife disease surveillance programme for a Nigerian protected area e.g National park 2.3 Describe outbreak investigation procedures: - Case definition, - Case finding - Epidemiological analysis - Source identification. 2.4 Explain how to	- Explain wildlife disease surveillance systems: passive surveillance, active surveillance, syndromic surveillance and WAHIS reporting in Nigeria. - Explain how to design a wildlife disease surveillance programme for a Nigerian protected area e.g National park. - Explain outbreak investigation procedures: - Case definition, - Case finding - Epidemiological analysis - Source identification - Discuss how to collect and handle wildlife disease samples for laboratory analysis: tissue, blood, swabs and carcass examination. - Discuss how to report	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	- Design a wildlife disease surveillance programme for one protected area; record target diseases, surveillance method, sample collection frequency, laboratory partner and reporting pathway - Apply the outbreak investigation procedure to one provided wildlife disease scenario; record case definition, case count, case distribution, suspected source and recommended	Guide students to: - Design a wildlife disease surveillance programme for one protected area; record target diseases, surveillance method, sample collection frequency, laboratory partner and reporting pathway. - Apply the outbreak investigation procedure to one provided wildlife disease scenario; record case definition, case count, case distribution, suspected source	Wildlife disease surveillance programme template, Wildlife disease outbreak scenario, Personal protective equipment, Wildlife carcass examination guide, Wildlife disease report template, PPE, Smartphones,

	collect and handle wildlife disease samples for laboratory analysis: tissue, blood, swabs and carcass examination 2.5 Describe how to report wildlife disease events to NVMA, NAFDAC and international notification bodies	wildlife disease events to NVMA, NAFDAC and international notification bodies.		control measures • Demonstrate safe carcass examination procedure. • Record personal protective equipment worn, examination sequence, samples collected and findings documented • Prepare a wildlife disease report for one disease event; • Record date, location, species, number affected, clinical signs, samples collected and notification pathway • Conduct a mock interview of a ranger on a wildlife disease observation. • Record questions asked, information obtained, follow-up investigation	and recommended control measures. • Demonstrate safe carcass examination procedure; record personal protective equipment worn, examination sequence, samples collected and findings documented. • Prepare a wildlife disease report for one disease event; record date, location, species, number affected, clinical signs, samples collected and notification pathway. • Conduct a mock interview of a ranger on a wildlife disease observation; record questions	
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				steps and recommendation.	asked, information obtained, follow-up investigation steps and recommendation.	
General Objective 3.0: Apply wildlife biosecurity systems for conservation and ecotourism enterprises;						
5 – 6	3.1 Explain One Health and how it integrates wildlife, domestic animal and human health for disease prevention at human-wildlife interfaces. 3.2 Describe the major zoonotic diseases at Nigerian wildlife-livestock-human interfaces: - Rabies - Lassa fever - Monkeypox - Ebola - Bovine tuberculosis. 3.3 Explain One Health risks of wildlife-livestock-human interface: species, habitat, practices	- Explain One Health and how it integrates wildlife, domestic animal and human health for disease prevention at human-wildlife interfaces. - Discuss the major zoonotic diseases at Nigerian wildlife-livestock-human interfaces: rabies, Lassa fever, monkeypox, Ebola and bovine tuberculosis. - Explain One Health risks of wildlife-livestock-human interface: species, habitat, practices and transmission pathway analysis. - Discuss how to design a One Health response for one interface disease risk: surveillance, vaccination, behavioral change and	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	- Map One Health linkages at one local wildlife-livestock-human interface; - Record wildlife species, domestic animals, human activities, shared resources and disease transmission pathways. - Assess the One Health risk of one Nigerian zoonotic disease at one interface site. - Record disease, interface factors, exposure routes, at-risk human population and risk level.	Guide students to: - Map One Health linkages at one local wildlife-livestock-human interface; record wildlife species, domestic animals, human activities, shared resources and disease transmission pathways - Assess the One Health risk of one Nigerian zoonotic disease at one interface site; record disease, interface factors, exposure routes, at-risk human population and risk level. - Design a One Health surveillance	One Health interface mapping template, Nigerian zoonotic disease guide, One Health risk assessment template, Community One Health Communication guide, Ecotourism visitor health safety Brief template, PPE, Smartphones, Field notebooks.

	and transmission pathway analysis. 3.4 Describe how to design a One Health response for one interface disease risk: surveillance, vaccination, behavioral change and community engagement. 3.5 Explain how ecotourism operations create One Health risks and how to manage wildlife visitor health safety.	community engagement • Explain how ecotourism operations create One Health risks and how to manage wildlife visitor health safety.		• Design a One Health surveillance system for one Nigerian protected area boundary community. • Record disease targets, surveillance method for wildlife, livestock and humans, reporting pathway and coordination mechanism. • Develop a community One Health communication message on one zoonotic disease risk; record target community, key message, risk communication channel and one behaviour change promoted. • Prepare an ecotourism visitor health safety brief for one wildlife	system for one Nigerian protected area boundary community; record disease targets, surveillance method for wildlife, livestock and humans, reporting pathway and coordination mechanism. • Develop a community One Health communication message on one zoonotic disease risk; record target community, key message, risk communication channel and one behaviour change promoted. • Prepare an ecotourism visitor health safety brief for one wildlife site; record zoonotic risks, safe behaviour rules, PPE	
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				site; record zoonotic risks, safe behaviour rules, PPE requirements, health emergency contact and evacuation procedure.	requirements, health emergency contact and evacuation procedure.	
General Objective 4.0: Apply wildlife biosecurity systems for conservation and ecotourism enterprises;						
7 – 9	4.1 Explain biosecurity in wildlife management and describe its three components: - Bioexclusion - Biocontainment - Biomanagement. 4.2 Explain how to design a park or ecotourism enterprise biosecurity plan covering disease exclusion, movement control and hygiene protocols 4.3 Describe vehicle and equipment decontamination procedures for	- Discuss biosecurity in wildlife management and describe its three components: - Bioexclusion - Biocontainment - Biomanagement. - Discuss how to design a park or ecotourism enterprise biosecurity plan covering disease exclusion, movement control and hygiene protocols - Describe vehicle and equipment decontamination procedures for wildlife parks and ecotourism operations - Explain how to manage invasive alien species	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	- Assess the biosecurity status of one local park or ecotourism enterprise; - Record bioexclusion, biocontainment and biomanagement measures in place - Identify gaps and three priority improvements - Develop a biosecurity plan for one ecotourism enterprise or par.; - Record entry control measures, vehicle decontamination	Guide students to: - Assess the biosecurity status of one local park or ecotourism enterprise; - Record bioexclusion, biocontainment and biomanagement measures in place - Identify gaps and three priority improvements - Develop a biosecurity plan for one ecotourism enterprise or park; record entry control measures, vehicle	Wildlife biosecurity status assessment tool, park biosecurity plan template, vehicle and equipment decontamination materials, invasive alien species identification guide, ranger biosecurity training programme template, projector, PPE, smartphones, field notebooks.

	wildlife parks and ecotourism operations 4.4 Explain how to manage invasive alien species risks as a biosecurity threat to Nigerian wildlife ecosystems 4.5 Describe how to train park rangers and ecotourism guides in biosecurity awareness and compliance	risks as a biosecurity threat to Nigerian wildlife ecosystems Describe how to train park rangers and ecotourism guides in biosecurity awareness and compliance		procedure, personnel hygiene protocol and monitoring system - Conduct a vehicle and equipment decontamination demonstration; record all steps performed, equipment used, contact time and biosecurity certification issued - Identify three invasive alien species biosecurity risks at one Nigerian wildlife site; - Record species, invasion pathway, ecosystem impact and one prevention or control measure. - Design a two-hour ranger biosecurity awareness training session; record learning objectives, content modules, practical	decontamination procedure, personnel hygiene protocol and monitoring system. - Conduct a vehicle and equipment decontamination demonstration; record all steps performed, equipment used, contact time and biosecurity certification issued. - Identify three invasive alien species biosecurity risks at one Nigerian wildlife site; record species, invasion pathway, ecosystem impact and one prevention or control measure. - Design a two-hour ranger biosecurity awareness training	
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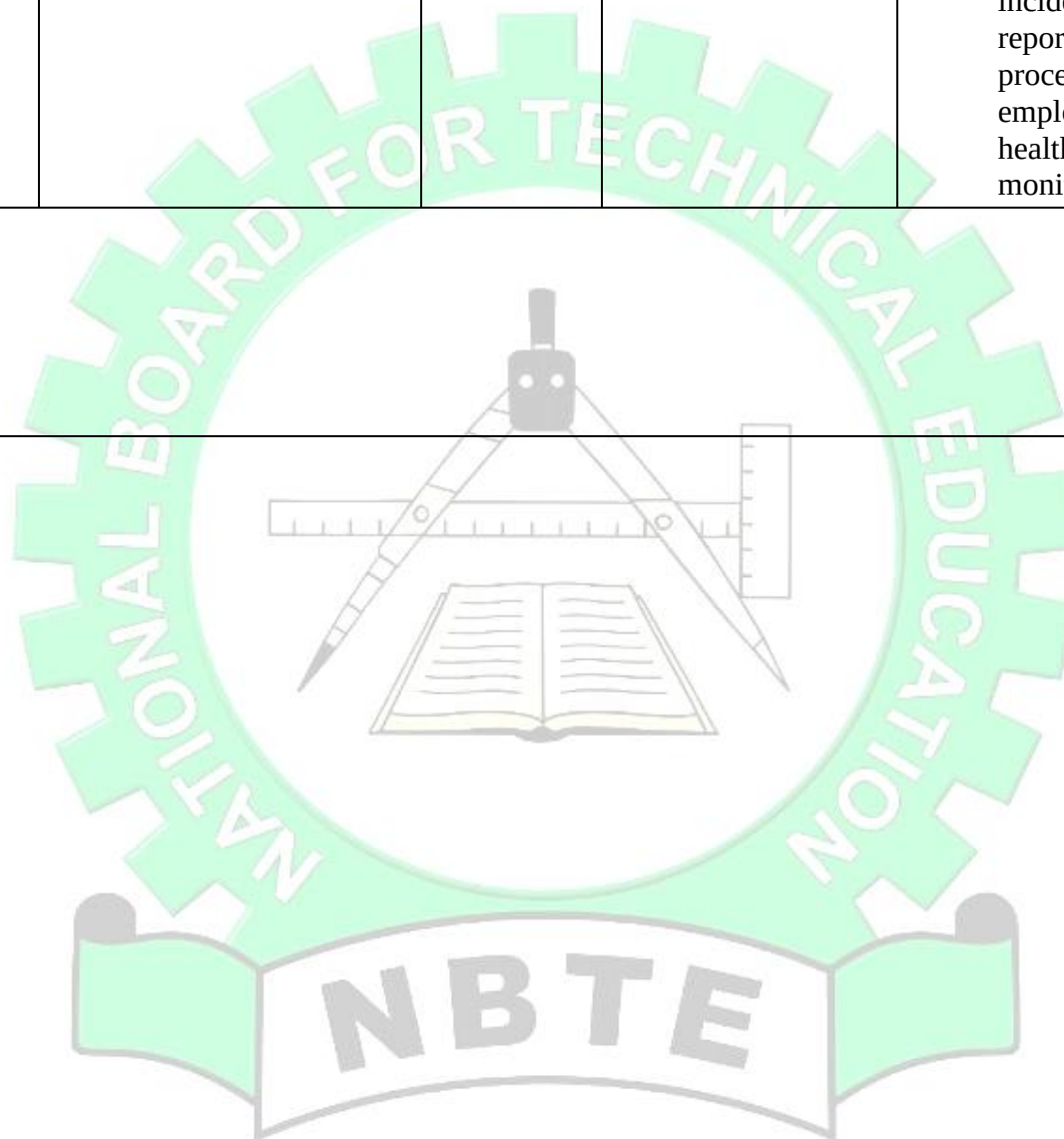
				exercises and competency assessment method.	session; record learning objectives, content modules, practical exercises and competency assessment method.	
General Objective 5.0: Apply wildlife first aid, capture and immobilization safety.						
10 – 11	5.1 Describe wildlife first aid principles for injured or distressed animals: assessment, stabilization, transport and rehabilitation referral. 5.2 Explain wildlife capture methods: manual restraint - Trap-cage - Net trapping - Chemical immobilization for different species. 5.3 Describe chemical immobilization principles: drug types, dosage calculation,	- Discuss wildlife first aid principles for injured or distressed animals: assessment, stabilization, transport and rehabilitation referral. - Explain wildlife capture methods: – Trap-cage – Net trapping – Chemical immobilization for different species. - Discuss chemical immobilization principles: drug types, dosage calculation, monitoring during immobilization and reversal. - Explain the safety protocols for wildlife capture operations: team	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	- Apply wildlife first aid procedure to three simulated injured animal scenarios; - Record animal assessment, stabilization steps taken, transport method and referral destination for each. - Demonstrate safe manual restraint technique for one small mammal or reptile in a controlled setting. - Record species, restraint method, monitoring parameters and	Guide students to: - Apply wildlife first aid procedure to three simulated injured animal scenarios; record animal assessment, stabilization steps taken, transport method and referral destination for each. - Demonstrate safe manual restraint technique for one small mammal or reptile in a controlled setting; record species, restraint method, monitoring parameters and release procedure.	Wildlife first aid simulation materials, Small mammal or reptile for restraint demonstration, Trapping protocol design guide, Chemical immobilization safety briefing template, Wildlife rehabilitation facility Design guide, PPE, Smartphones.

	monitoring during immobilization and reversal. 5.4 Explain the safety protocols for wildlife capture operations: team roles, communications, emergency procedures and public safety. 5.5 Describe how to establish and manage a wildlife rehabilitation centre for injured or orphaned animals in Nigeria	roles, communications, emergency procedures and public safety. • Discuss how to establish and manage a wildlife rehabilitation center for injured or orphaned animals in Nigeria	release procedure. • Design a trapping protocol for one target wildlife species; record trap type, placement, bait, check frequency, handling procedure and release protocol. • Prepare a chemical immobilization safety briefing for a mock capture team; • Record team roles, drug safety rules, monitoring checklist, emergency reversal plan and public safety measures. • Design a wildlife rehabilitation facility for five common Nigerian wildlife species; • Record species, enclosure design, feeding protocol,	• Design a trapping protocol for one target wildlife species; record trap type, placement, bait, check frequency, handling procedure and release protocol. • Prepare a chemical immobilization safety briefing for a mock capture team; record team roles, drug safety rules, monitoring checklist, emergency reversal plan and public safety measures. • Design a wildlife rehabilitation facility for five common Nigerian wildlife species; record species, enclosure design, feeding protocol, veterinary care needs and release criteria.	
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				veterinary care needs and release criteria.		
General Objective 6.0: Know zoonotic disease prevention and safe wildlife handling practices.						
12 – 15	6.1 Describe personal protective equipment requirements for different wildlife handling activities: live animal handling, carcass examination and laboratory work 6.2 Explain standard operating procedures for safe wildlife handling to prevent zoonotic disease transmission in parks and ecotourism operations 6.3 Describe post-exposure prophylaxis protocols for wildlife handlers exposed to rabies, Lassa fever and other zoonotic pathogens 6.4 Explain how to design and deliver a zoonotic disease	• Explain personal protective equipment requirements for different wildlife handling activities: live animal handling, carcass examination and laboratory work. • Discuss standard operating procedures for safe wildlife handling to prevent zoonotic disease transmission in parks and ecotourism operations. • Discuss post-exposure prophylaxis protocols for wildlife handlers exposed to rabies, Lassa fever and other zoonotic pathogens. • Explain how to design and deliver a zoonotic disease prevention training programme for park rangers, ecotourism guides and local communities. • Discuss how to develop a	Textbooks, Lecture notes, Handouts, Charts, Diagrams, Photographs, ICT, Projector Slides, etc.	• Select appropriate PPE for five different wildlife handling scenarios; record scenario, hazard, PPE selected and correct donning sequence for each. • Demonstrate a safe wildlife carcass examination using correct PPE and decontamination procedure; record all PPE worn, examination sequence, samples collected and decontamination steps • Prepare a post-exposure prophylaxis response plan for two zoonotic disease exposure	Guide students to: • Select appropriate PPE for five different wildlife handling scenarios; record scenario, hazard, PPE selected and correct donning sequence for each. • Demonstrate a safe wildlife carcass examination using correct PPE and decontamination procedure; record all PPE worn, examination sequence, samples collected and decontamination steps • Prepare a post-exposure prophylaxis response plan for two zoonotic	Wildlife handling PPE kit, Safe wildlife handling SOP guide, Post-exposure prophylaxis protocol, Zoonotic disease prevention training template, wildlife health and safety policy template, Projector, PPE, smartphones, field notebooks., PPE, smartphones, field notebooks.

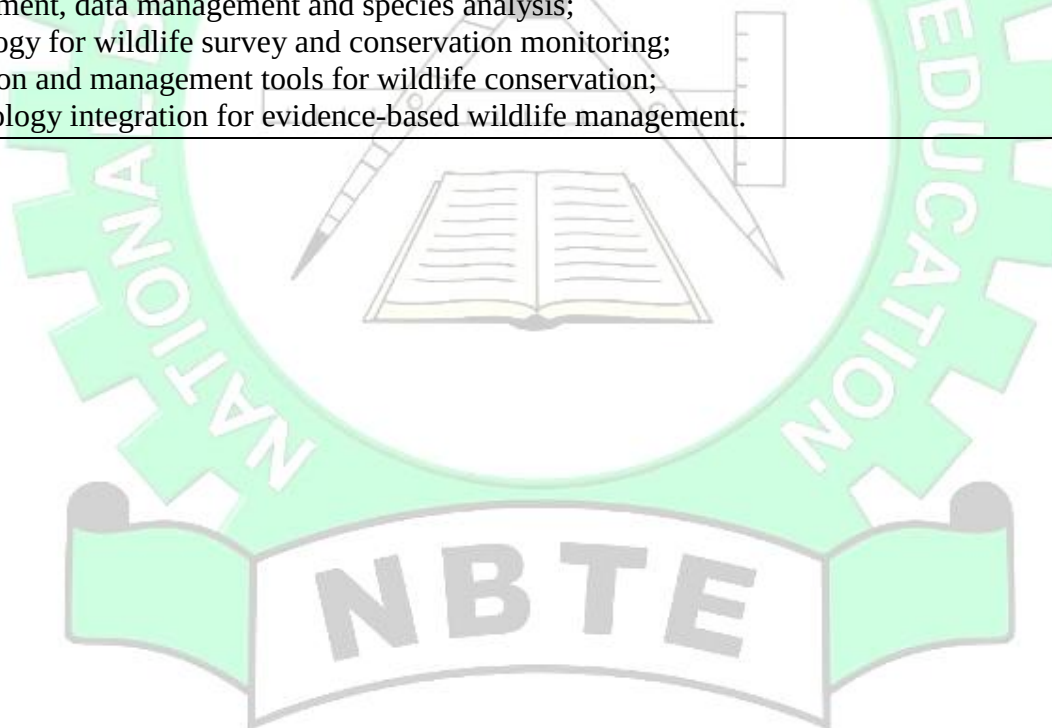
	prevention training programme for park rangers, ecotourism guides and local communities 6.5 Describe how to develop a wildlife health and safety policy for an ecotourism enterprise or park management unit.	wildlife health and safety policy for an ecotourism enterprise or park management unit.		scenarios; - Record exposure type, pathogen, immediate action, medical referral pathway and follow-up protocol - Design a four-hour zoonotic disease prevention training for park rangers; record learning objectives, content topics, practical exercises and competency assessment for each module - Develop a wildlife health and safety policy for one ecotourism enterprise; - Record scope, safety standards, PPE requirements, incident reporting procedure and employee health monitoring	disease exposure scenarios; record exposure type, pathogen, immediate action, medical referral pathway and follow-up protocol - Design a four-hour zoonotic disease prevention training for park rangers; record learning objectives, content topics, practical exercises and competency assessment for each module - Develop a wildlife health and safety policy for one ecotourism enterprise; record scope, safety standards, PPE requirements,	
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					incident reporting procedure and employee health monitoring.	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						



DIGITAL TOOLS AND GIS FOR WILDLIFE MANAGEMENT

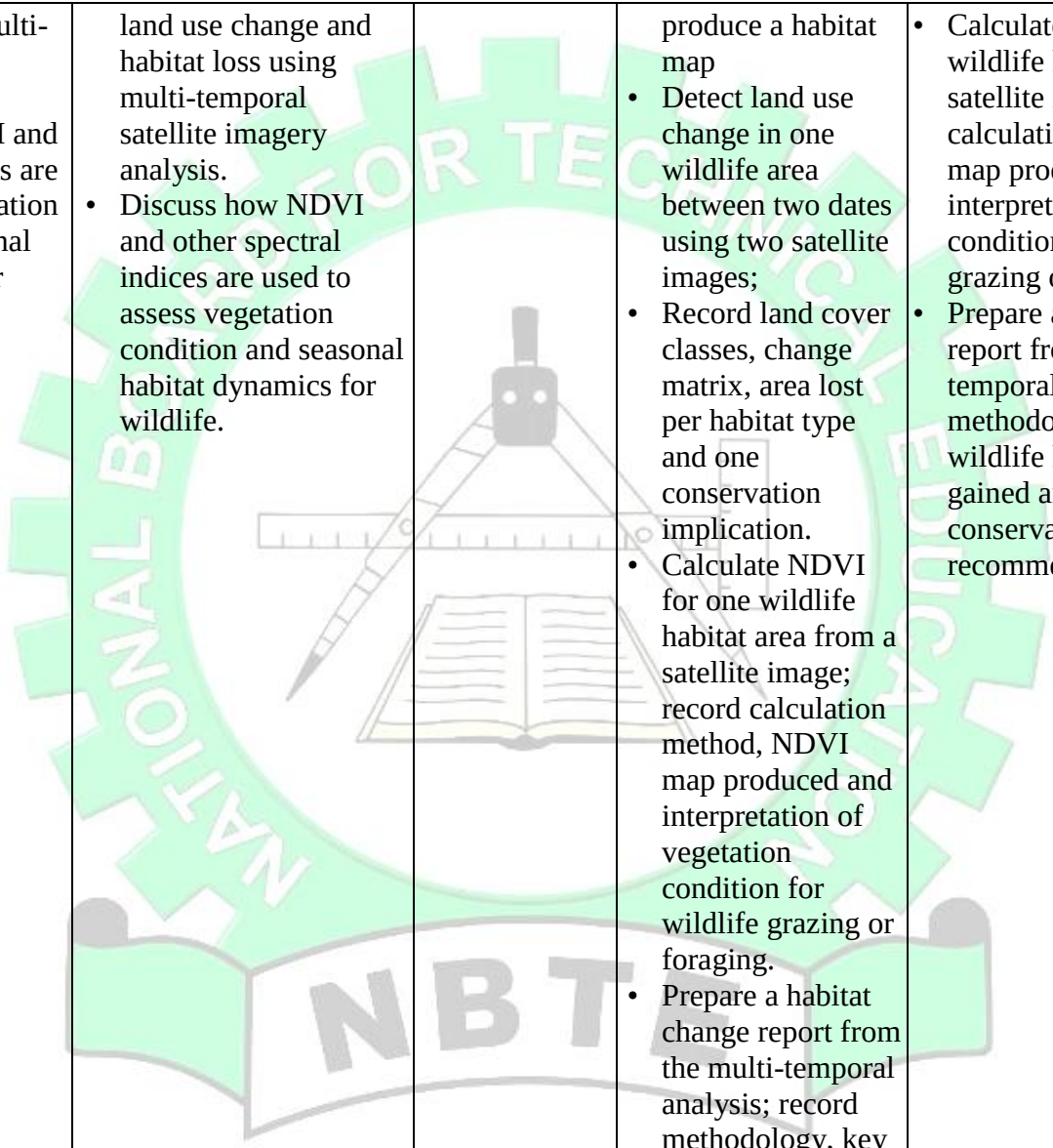
PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: DIGITAL TOOLS AND GIS FOR WILDLIFE MANAGEMENT	COURSE CODE: WEM 315	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1HOUR/WEEK
YEAR: 1 SEMESTER:1	PRE-REQUISITE:	PRACTICAL: 2HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills in GIS, remote sensing, camera traps, drone technology and digital data tools for wildlife monitoring and conservation management.		
GENERAL OBJECTIVES: On completion of this course, the student should be able to: 1.0 Understand GIS concepts and apply basic GIS operations for wildlife management; 2.0 Apply remote sensing and satellite imagery analysis for habitat mapping; 3.0 Apply camera trap deployment, data management and species analysis; 4.0 Understand drone technology for wildlife survey and conservation monitoring; 5.0 Apply digital data collection and management tools for wildlife conservation; 6.0 Know conservation technology integration for evidence-based wildlife management.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: DIGITAL TOOLS AND GIS FOR WILDLIFE MANAGEMENT				COURSE CODE: WEM 315		CONTACT HOURS: 3HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL:2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in GIS, remote sensing, camera traps, drone technology and digital data tools for wildlife monitoring and conservation management.						
GENERAL OBJECTIVE 1.0: Understand GIS concepts and apply basic GIS operations for wildlife management.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1 – 2	1.1 Define GIS and describe its components: hardware, software, data, methods and people in the context of wildlife management. 1.2 Explain coordinate systems, projections and datums used in GIS for wildlife and conservation mapping in Nigeria. 1.3 Describe GIS data types: vector layers, raster layers, attribute tables and spatial databases for wildlife management. 1.4 Explain how to create, edit and query wildlife management GIS layers:	- Discuss GIS and describe its components: hardware, software, data, methods and people in the context of wildlife management. - Explain coordinate systems, projections and datums used in GIS for wildlife and conservation mapping in Nigeria. - Discuss GIS data types: vector layers, raster layers, attribute tables and spatial databases for wildlife	GIS concepts guide, Coordinate systems and datums guide, GIS data types guide, QGIS or Google Earth software, Wildlife GIS layer creation guide, Laptop/ computers, Projector, internet, etc.	- Create a species occurrence GIS layer for ten wildlife sightings; record GPS coordinates, species, date, habitat type and add all data to a GIS layer with attribute table - Overlay a species occurrence layer on a habitat map in QGIS or Google Earth; record habitat types where species was detected, identify	Guide students to: - Create a species occurrence GIS layer for ten wildlife sightings; record GPS coordinates, species, date, habitat type and add all data to a GIS layer with attribute table - Overlay a species occurrence layer on a habitat map in QGIS or Google Earth; record habitat types where species was detected, identify preferred habitat and describe spatial distribution. - Digitize the boundary of one local conservation area from a satellite image; record boundary coordinates,	GPS devices, QGIS or Google Earth software, satellite imagery of local wildlife areas, wildlife sighting data for GIS exercises, laptop computers, projector,

	species occurrence, habitat, land use and protected area boundaries. 1.5 Describe free and open-source GIS software applicable to wildlife management: QGIS, Google Earth and ArcGIS Online	management. - Describe how to create, edit and query wildlife management GIS layers: species occurrence, habitat, land use and protected area boundaries. - Discuss free and open-source GIS software applicable to wildlife management: QGIS, Google Earth and ArcGIS Online		preferred habitat and describe spatial distribution. - Digitize the boundary of one local conservation area from a satellite image. - Record boundary coordinates, calculate area and produce a boundary map with scale bar and north arrow. - Query a GIS wildlife dataset to identify all sightings of one target species within 5 km of a water source; - Record query method, results and one wildlife management implication. - Produce a wildlife management map for one local area showing protected	calculate area and produce a boundary map with scale bar and north arrow. - Query a GIS wildlife dataset to identify all sightings of one target species within 5 km of a water source; record query method, results and one wildlife management implication. - Produce a wildlife management map for one local area showing protected area boundary, land use zones, species occurrence and water sources with full cartographic elements.	field notebook., PPE, smartphone s.
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				area boundary, land use zones, species occurrence and water sources with full cartographic elements.		
General Objective 2.0: Apply remote sensing and satellite imagery analysis for habitat mapping						
3 – 4	2.1 Describe remote sensing principles: electromagnetic spectrum, spectral signatures, image resolution and satellite sensor types used in conservation. 2.2 Explain how to access free satellite imagery: Landsat, Sentinel-2, Planet and Google Earth Engine for wildlife habitat mapping. 2.3 Describe how to classify land cover and map wildlife habitats from satellite imagery using supervised and unsupervised classification. 2.4 Explain how to detect land use change and	- Discuss remote sensing principles: electromagnetic spectrum, spectral signatures, image resolution and satellite sensor types used in conservation. - Explain how to access free satellite imagery: Landsat, Sentinel-2, Planet and Google Earth Engine for wildlife habitat mapping. - Discuss how to classify land cover and map wildlife habitats from satellite imagery using supervised and unsupervised classification. - Discuss how to detect	GIS concepts guide, Coordinate systems and datums guide, GIS data types guide, QGIS or Google Earth software, Wildlife GIS layer creation guide, Laptop/ computers, Projector, internet, etc.	- Download Sentinel-2 or Landsat imagery for one local wildlife area; - Record image date, spatial resolution, spectral bands selected and display the image in false color composite. - Perform a supervised land cover classification of one wildlife habitat area; record training samples per class, classification method, accuracy assessment and	Guide students to: - Download Sentinel-2 or Landsat imagery for one local wildlife area; record image date, spatial resolution, spectral bands selected and display the image in false color composite. - Perform a supervised land cover classification of one wildlife habitat area; record training samples per class, classification method, accuracy assessment and produce a habitat map - Detect land use change in one wildlife area between two dates using two satellite images; record land cover classes, change matrix, area lost per habitat type and one conservation implication.	Computers with QGIS or Google Earth Engine, satellite imagery download guide, land cover classification guide, NDVI calculation guide, habitat change report template, projector, PPE, field notebook, smartphone

	habitat loss using multi-temporal satellite imagery analysis 2.5 Describe how NDVI and other spectral indices are used to assess vegetation condition and seasonal habitat dynamics for wildlife.	land use change and habitat loss using multi-temporal satellite imagery analysis. • Discuss how NDVI and other spectral indices are used to assess vegetation condition and seasonal habitat dynamics for wildlife.		produce a habitat map • Detect land use change in one wildlife area between two dates using two satellite images; • Record land cover classes, change matrix, area lost per habitat type and one conservation implication. • Calculate NDVI for one wildlife habitat area from a satellite image; record calculation method, NDVI map produced and interpretation of vegetation condition for wildlife grazing or foraging. • Prepare a habitat change report from the multi-temporal analysis; record methodology, key	• Calculate NDVI for one wildlife habitat area from a satellite image; record calculation method, NDVI map produced and interpretation of vegetation condition for wildlife grazing or foraging. • Prepare a habitat change report from the multi-temporal analysis; record methodology, key findings, wildlife habitat lost or gained and three conservation management recommendations.	s.
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				findings, wildlife habitat lost or gained and three conservation management recommendations.		
General Objective 3.0: Apply camera trap deployment, data management and species analysis						
5 – 7	3.1 Describe camera trap types: passive infrared, active infrared and video camera traps and their wildlife detection capabilities 3.2 Explain how to design a camera trap survey: station placement, spacing, height, trigger settings and survey duration for different wildlife. 3.3 Describe how to manage camera trap data: image organization, species identification, data entry and database management. 3.4 Explain how to calculate camera trap metrics: relative abundance index, occupancy probability, detection rate and	- Discuss camera trap types: passive infrared, active infrared and video camera traps and their wildlife detection capabilities. - Discuss how to design a camera trap survey: station placement, spacing, height, trigger settings and survey duration for different wildlife. - Discuss how to manage camera trap data: image organization, species identification, data entry and database management. - Discuss how to calculate camera trap metrics: relative abundance index,	GIS concepts guide, Coordinate systems and datums guide, GIS data types guide, QGIS or Google Earth software, Wildlife GIS layer creation guide, Laptop/ computers, Projector, internet, etc.	- Deploy three camera traps at one local site; record station locations, GPS coordinates, camera settings, deployment date and site photographs for each station. - Identify species from one hundred camera trap images; record species, image count, date, time, behaviour and individual markings where possible for each image reviewed. - Enter camera trap	Guide students on how to: - Deploy three camera traps at one local site; record station locations, GPS coordinates, camera settings, deployment date and site photographs for each station. - Identify species from one hundred camera trap images; record species, image count, date, time, behaviour and individual markings where possible for each image reviewed. - Enter camera trap data into a database or Wildlife Insights; record all fields, calculate relative abundance index for three species and produce a species detection summary. - Analyse camera trap temporal activity patterns	Camera traps, GPS devices, camera trap data management system or Wildlife Insights, camera trap image dataset for analysis, camera trap survey report template, laptop computers, projector, PPE, field notebooks, smartphones.

	activity patterns. 3.5 Describe how to use CAMTRAP R, Wildlife Insights or Timelapse2 for camera trap data analysis and species reporting.	occupancy probability, detection rate and activity patterns. Discuss how to use CAMTRAP R, Wildlife Insights or Timelapse2 for camera trap data analysis and species reporting.	data into a database or Wildlife Insights; record all fields, calculate relative abundance index for three species and produce a species detection summary. - Analyse camera trap temporal activity patterns for one species; - Record detection frequency per hour, plot diel activity graph and interpret activity pattern. - Prepare a camera trap survey report for one local wildlife area - Record methods, species detected, relative abundance results, activity patterns and one wildlife management recommendation.	for one species; record detection frequency per hour, plot diel activity graph and interpret activity pattern. Prepare a camera trap survey report for one local wildlife area; record methods, species detected, relative abundance results, activity patterns and one wildlife management recommendation.	
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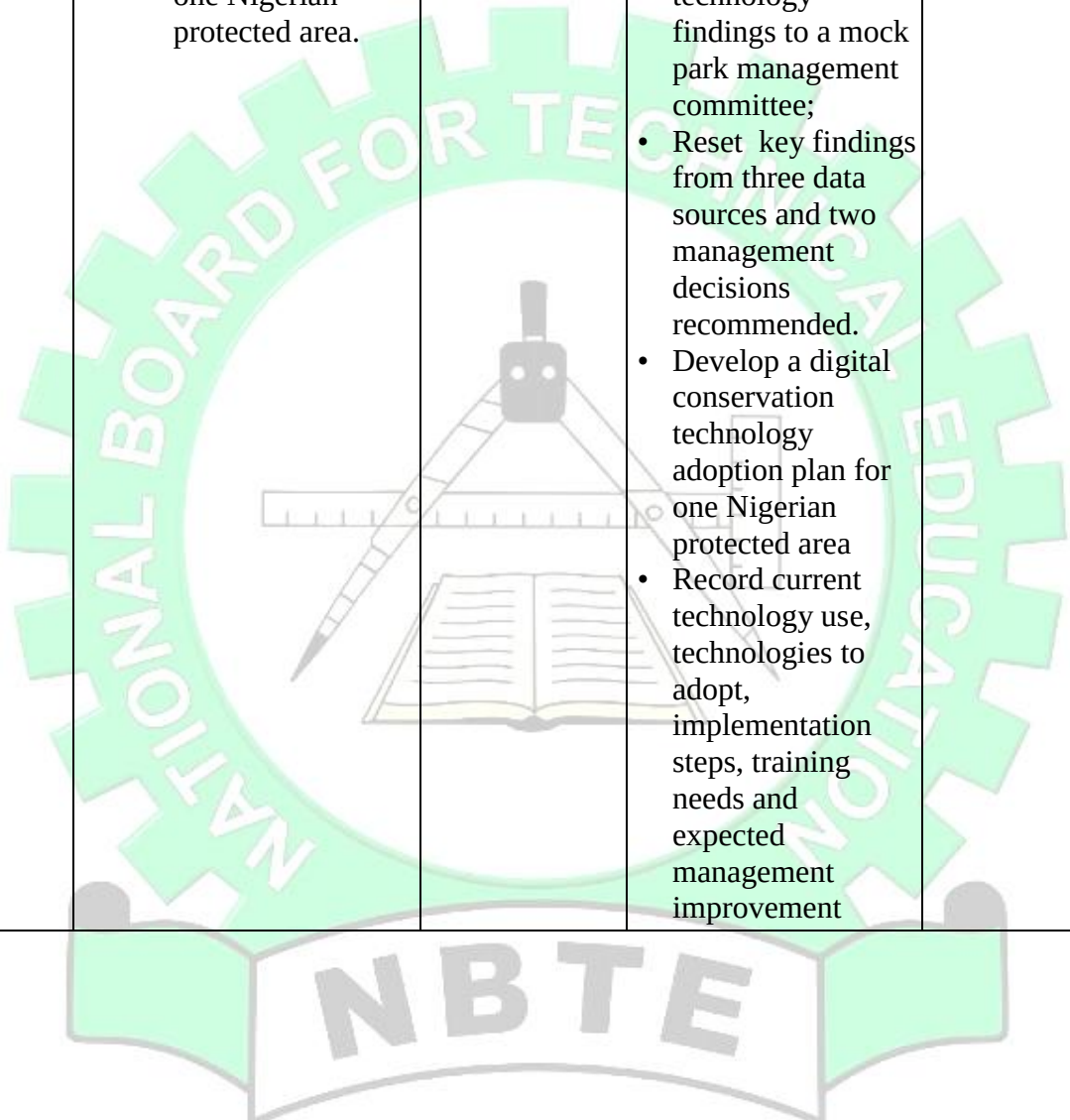
General Objective 4.0: Understand Drone technology for wildlife survey and conservation monitoring						
8 – 9	4.1 Describe Drone types and their wildlife survey applications: fixed-wing, multirotor and thermal Drones for aerial wildlife monitoring. 4.2 Explain Drone operating regulations in Nigeria: NCAA requirements, flight permits and restricted airspace for wildlife survey operations. 4.3 Describe how to plan and execute a wildlife Drone survey: flight path planning, altitude, image overlap and ground control points. 4.4 Explain how to process Drone imagery: photogrammetry, orthomosaic production and wildlife detection from Drone images. 4.5 Describe how to use Drones for anti-poaching patrols, fire detection and illegal activity monitoring in protected	• Discuss Drone types and their wildlife survey applications: fixed-wing, multirotor and thermal Drones for aerial wildlife monitoring. • Discuss Drone operating regulations in Nigeria: NCAA requirements, flight permits and restricted airspace for wildlife survey operations. • Discuss how to plan and execute a wildlife Drone survey: flight path planning, altitude, image overlap and ground control points. • Discuss how to process Drone imagery: – Photogrammetry orthomosaic production. – Wildlife detection from Drone images. Discuss how to use Drones for anti-poaching patrols, fire	GIS concepts guide, Coordinate systems and datums guide, GIS data types guide, QGIS or Google Earth software, Wildlife GIS layer creation guide, Laptop/ computers, Projector, internet, etc.	• Plan a Drone wildlife survey for one local area; • Record flight path, altitude, image overlap, battery requirement, flight time and required NCAA permit. • Operate a Drone safely in a controlled environment; • Record pre-flight checklist, flight operation, post-flight check and any anomalies observed during flight. • Process Drone imagery using free photogrammetry software; • Record processing steps, orthomosaic produced and one	Guide students on how to: • Plan a Drone wildlife survey for one local area; record flight path, altitude, image overlap, battery requirement, flight time and required NCAA permit. • Operate a Drone safely in a controlled environment; record pre-flight checklist, flight operation, post-flight check and any anomalies observed during flight. • Process Drone imagery using free photogrammetry software; record processing steps, orthomosaic produced and one wildlife feature identified from the imagery. • Identify wildlife from Drone imagery; record species or animal group, count, location on map and behaviour observed from five Drone image frames. • Develop a drone anti-poaching patrol protocol for one protected area; record patrol zones, flight schedule, detection criteria, incident reporting procedure and	Drone, Drone survey planning software, photogrammetry software, drone imagery for analysis, anti-poaching drone patrol protocol template, NCAA drone regulations document, laptop computers, projector, field notebooks, PPE, smartphones.

	areas.	detection and illegal activity monitoring in protected areas.		wildlife feature identified from the imagery. • Identify wildlife from Drone imagery; • Record species or animal group, count, location on map and behaviour observed from five Drone image frames. • Develop a drone anti-poaching patrol protocol for one protected area; • Record patrol zones, flight schedule, detection criteria, incident reporting procedure and ranger response protocol.	ranger response protocol.	
General Objective 5.0: Apply digital data collection and management tools for wildlife conservation						
10 – 11	5.1 Describe digital data collection tools for wildlife conservation	• Discuss digital data collection tools for wildlife conservation	GIS concepts guide, Coordinate	• Design a digital wildlife species occurrence survey	Guide student to; • Design a digital wildlife species occurrence survey	KoboToolbox on smartphone

	field surveys: KoboToolbox, Survey123, ODK and CyberTracker. 5.2 Explain how to design and deploy a digital wildlife field survey form for species occurrence, habitat assessment or threat mapping. 5.3 Describe how to manage and clean wildlife field survey data in Excel, R or other data management platforms. 5.4 Explain how to use SMART (Spatial Monitoring and Reporting Tool) for ranger patrol data collection and analysis. 5.5 Describe how to use eBird, iNaturalist, GBIF and African Bird Atlas for citizen science wildlife data contribution and access.	field surveys: KoboToolbox, Survey123, ODK and CyberTracker. • Discuss how to design and deploy a digital wildlife field survey form for species occurrence, habitat assessment or threat mapping. • Discuss how to manage and clean wildlife field survey data in Excel, R or other data management platforms. • Discuss how to use SMART (Spatial Monitoring and Reporting Tool) for ranger patrol data collection and analysis. • Discuss how to use eBird, iNaturalist, GBIF and African Bird Atlas for citizen science wildlife data contribution and access.	systems and datums guide, GIS data types guide, QGIS or Google Earth software, Wildlife GIS layer creation guide, Laptop/ computers, Projector, internet, etc.	form with fifteen fields using KoboToolbox; • Record all field names, data types, validation rules and test the form with five mock entries. • Deploy the digital survey form in the field; collect data from ten wildlife observation points; download and review the dataset for completeness. • Clean the downloaded wildlife field survey dataset; record errors found, cleaning steps applied, final clean dataset dimensions and one data quality recommendation. • Set up a SMART patrol data collection template for one protected area; record patrol attributes, threat categories, species detection fields and export the data in a GIS-compatible format. • Submit five wildlife observations to iNaturalist and five bird records to eBird; record species, location, date, photograph and identification confidence for each submission.	form with fifteen fields using KoboToolbox; record all field names, data types, validation rules and test the form with five mock entries. • Deploy the digital survey form in the field; collect data from ten wildlife observation points; download and review the dataset for completeness. • Clean the downloaded wildlife field survey dataset; record errors found, cleaning steps applied, final clean dataset dimensions and one data quality recommendation. • Set up a SMART patrol data collection template for one protected area; record patrol attributes, threat categories, species detection fields and export the data in a GIS-compatible format. • Submit five wildlife observations to iNaturalist and five bird records to eBird; record species, location, date, photograph and identification confidence for each submission.	s or tablets, Excel or R, SMART software, eBird and iNaturalist apps, GPS devices, wildlife field survey dataset for cleaning, laptop computers, projector, field notebooks, PPE, smartphone s.
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				for one protected area - Record patrol attributes, threat categories, species detection fields and export the data in a GIS-compatible format. - Submit five wildlife observations to iNaturalist and five bird records to eBird - Record species, location, date, photograph and identification confidence for each submission.		
General Objective 6.0: Know conservation technology integration for evidence-based wildlife management						
12 – 15	6.1 Describe emerging conservation technologies: - Acoustic monitoring - Environmental DNA sampling, - AI-powered species - Identification and satellite tracking.	- Discuss emerging conservation technologies: - Acoustic monitoring - Environmental DNA sampling, - AI-powered species - Identification and satellite tracking.	GIS concepts guide, Coordinate systems and datums guide, GIS data types guide, QGIS or Google Earth software,	- Run a species distribution model for one Nigerian wildlife species using provided occurrence data and environmental layers - Record model	Guide student on how; Run a species distribution model for one Nigerian wildlife species using provided occurrence data and environmental layers; record model setup, AUC score, habitat suitability map and three conservation	MaxEnt or species distribution modelling software, wildlife occurrence data and environmen

	6.2 Explain how to integrate multiple digital data streams into a conservation management dashboard for real-time decision-making. 6.3 Describe how to use species distribution modelling to predict wildlife habitat suitability and guide conservation planning. 6.4 Explain how to present digital conservation data and GIS maps to park managers, government officials and conservation partners. 6.5 Describe how to develop a digital conservation technology adoption plan for one Nigerian protected area.	• Discuss how to integrate multiple digital data streams into a conservation management dashboard for real-time decision-making. • Discuss how to use species distribution modelling to predict wildlife habitat suitability and guide conservation planning. • Discuss how to present digital conservation data and GIS maps to park managers, government officials and conservation partners. • Discuss how to develop a digital conservation technology adoption plan for	Wildlife GIS layer creation guide, Laptop/computers, Projector, internet, etc.	setup, AUC score, habitat suitability map and three conservation planning implications. • Build a simple conservation management dashboard integrating camera trap, patrol and vegetation monitoring data; • Record data sources, dashboard metrics and one management insight per metric. • Prepare a GIS conservation report for one wildlife area • Record maps produced, key spatial findings and three evidence-based management recommendations. • Present digital conservation	planning implications. • Build a simple conservation management dashboard integrating camera trap, patrol and vegetation monitoring data; record data sources, dashboard metrics and one management insight per metric. • Prepare a GIS conservation report for one wildlife area; record maps produced, key spatial findings and three evidence-based management recommendations. • Present digital conservation technology findings to a mock park management committee; explain key findings from three data sources and two management decisions recommended. • Develop a digital conservation technology adoption plan for one Nigerian protected area; record current technology use, technologies to adopt, implementation steps, training needs and expected management improvement.	tal layers, conservation management dashboard guide, GIS conservation report template, digital technology adoption plan template, laptop computers, projector, field notebooks., PPE, smartphones.
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		one Nigerian protected area.		technology findings to a mock park management committee; • Reset key findings from three data sources and two management decisions recommended. • Develop a digital conservation technology adoption plan for one Nigerian protected area • Record current technology use, technologies to adopt, implementation steps, training needs and expected management improvement	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%					

NATURAL HISTORY OF AFRICAN MAMMALS

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: NATURAL HISTORY OF AFRICAN MAMMALS	COURSE CODE: WEM 316	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1HOUR/WEEK
YEAR: 1 SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 2HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills in natural history of African mammals		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the natural history and evolution of African mammals; 2.0 Understand the taxonomy and systematic of African mammals; 3.0 Know the species profiles based on their orders; 4.0 Understand behavioral ecology of African mammals; 5.0 Know ecological adaptations of African mammals.		

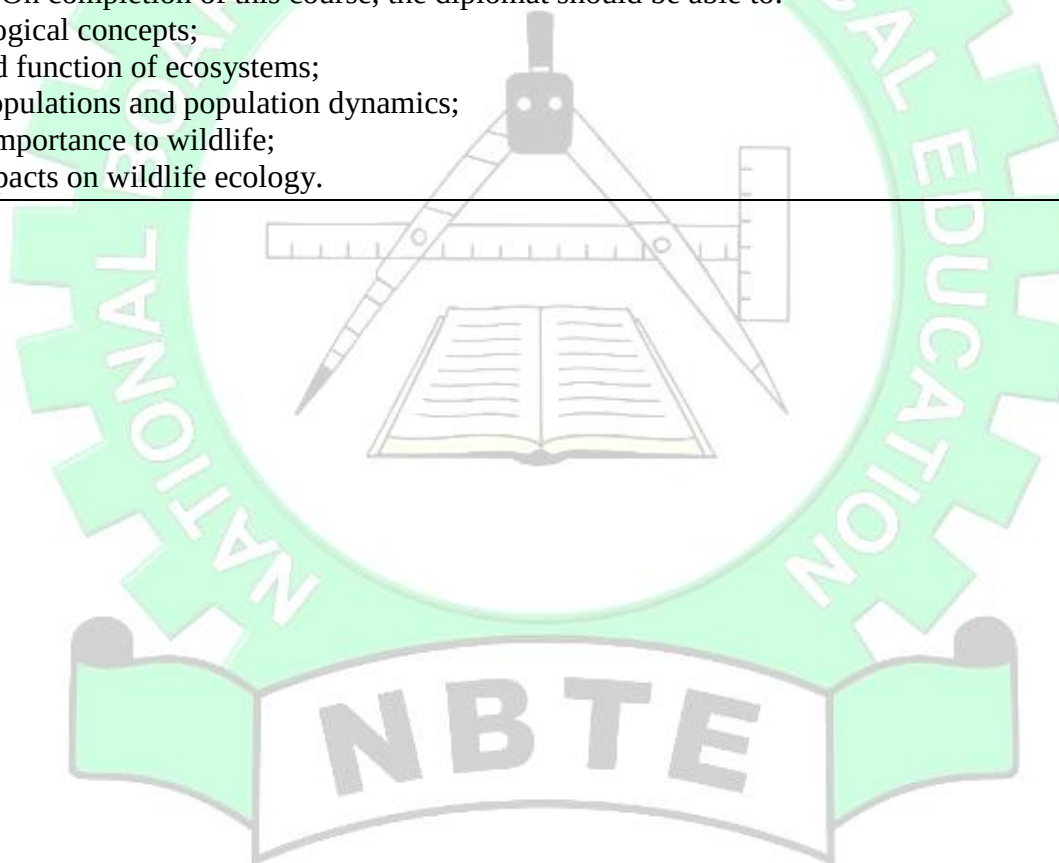
PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] WILDLIFE ECOTOURISM AND MANAGEMENT;						
COURSE TITLE: NATURAL HISTORY OF AFRICAN MAMMALS				COURSE CODE: WEM 316		CONTACT HOURS: 3HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 2HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in natural history of African mammals						
GENERAL OBJECTIVE 1.0: Understand the natural history and evolution of African mammals;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain natural history of African mammals. 1.2 Trace mammalian origins in Africa. 1.3 Explain evolutionary trends.	• Discuss natural history of African mammals. • Discuss mammalian origins in Africa. • Discuss evolutionary trends Define natural history.	Charts, Projector, Multimedia presentations, Textbooks, Pictures, Videos, Case studies, etc.	• Conduct wildlife surveys using appropriate field technique and data collection. • Identify wildlife species, their habitat and ecological relationships. • Implement wildlife conservation and management plans. • Develop strategies for mitigating human-wildlife conflicts and promoting coexistence.	Guide students to: • Conduct wildlife surveys using appropriate field technique and data collection. • Identify and classify wildlife species, their habitat and ecological relationships. • Develop and implement wildlife conservation and management plans. • Develop strategies for mitigating human-wildlife conflicts and	Charts, Projector, Multimedia, presentations, Textbooks, Pictures, Videos, Case studies.

					promoting coexistence.	
General Objective 2.0: Understand the taxonomy and systematic of African mammals						
4-5	2.1 Explain major African mammalian orders. 2.2 Explain application of taxonomic keys. 2.3 Differentiate species traits.	- Discuss major African mammalian orders - Discuss application of taxonomic keys - Explain application of taxonomic keys - Discuss species traits	Charts, Projector, Charts, etc.	- Identify major African mammalian orders. - Apply taxonomic keys.	Guide student to; - Identify major African mammalian orders. - Apply taxonomic keys.	Taxonomic keys
General Objective 3.0: Know the species profiles based on their orders						
6-7	3.1 Explain morphology of African mammals. 3.2 Explain mapping of geographic distributions. 3.3 Explain feeding strategies.	- Discuss morphology of African ungulates. - Discuss mapping of geographic distributions. - Discuss feeding strategies.	Charts, Projector, Remote sensing, etc.	- Map geographic distributions - Operate GPS device	Guide student to: - Map geographic distributions. - Operate GPS.	Distribution maps, GPS Remote sensing.
General Objective 4.0: Understand behavioral ecology of African mammals						
8-10	4.1 Explain assessment of territorial behaviors. 4.2 Explain seasonal migrations. 4.3 Explain analysis of reproductive cycles	- Discuss assessment of territorial behaviors - Discuss seasonal migrations - Discuss analysis of reproductive cycles	Charts, Projector, Remote sensing, etc.	- Assess territorial behaviors - Analyze reproductive cycles	Guide student to; - Assess territorial behaviors - Analyze reproductive cycles	Migratory maps
General Objective 5.0 Know ecological adaptations of African mammals						
11-12	5.1 Explain extreme habitat survival traits. 5.2 Explain water/heat	- Discuss extreme habitat survival traits. - Discuss water/heat	Charts Projector National Parks	- Identify extreme habitat survival traits - Assess population	Guide student to; Identify extreme habitat survival	Animal Physiology Laboratory.

	retention. 5.3 Explain assessment of population pressures.	retention. • Discuss assessment of population pressures.	or Game Reserve.	pressures	traits • Assess population pressures	
General Objective 6. 0 Understand conservation, status and threat to African mammals						
13-15	6.1 Evaluate economic considerations to conservation. 6.2 Explain threats to African mammals. 6.3 Explain application of conservation policies.	• Discuss economic considerations to conservation • Discuss threats to African mammals • Discuss application of conservation policies	Charts Projector National parks or Game Reserve.	• Assess threats to African mammals. • Apply conservation policies.	Guide student to; • Assess threats to African mammals • Apply conservation policies	Animal protection laws and reserve system.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						

WILDLIFE ECOLOGY

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: WILDLIFE ECOLOGY	COURSE CODE: WEM 317	CONTACT HOURS: 4 HOUR/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with fundamental knowledge of wildlife ecology.		
GENERAL OBJECTIVES: On completion of this course, the diplomat should be able to: 1.0 Understand basic ecological concepts; 2.0 Know the structure and function of ecosystems; 3.0 Understand wildlife populations and population dynamics; 4.0 Know habitat and its importance to wildlife; 5.0 Understand human impacts on wildlife ecology.		

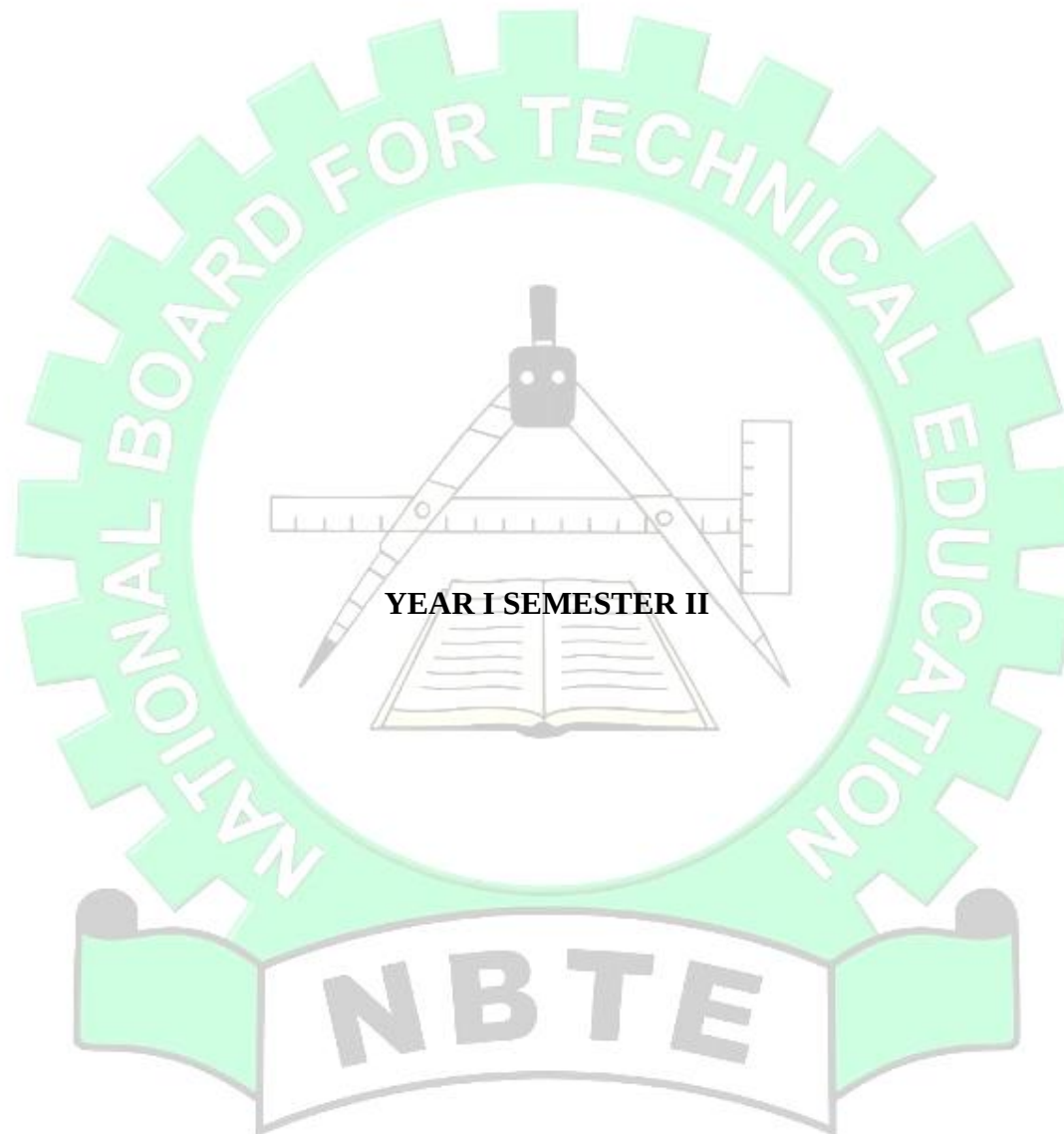


PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: WILDLIFE ECOLOGY				COURSE CODE: WEM 317		CONTACT HOURS:4 HOURS/WEEK
				CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with fundamental knowledge of wildlife ecology.						
GENERAL OBJECTIVE 1.0: Understand basic ecological concepts;						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain ecology and its branches. 1.2 Explain biotic and abiotic components of the environment. 1.3 Describe the concept of niche. 1.4 Explain food chains, food webs and energy flow. 1.5 Describe ecological succession.	• Discuss ecology and its branches. • Explain biotic and abiotic components of the environment. • Discuss the concept of niche. • Explain food chains, food webs and energy flow. • Discuss ecological succession.	Teaching tools, Ecological diagrams, Textbooks, Thermometers, Measuring tapes, etc.	• Identify biotic and abiotic components on the field. • Construct food chains and webs from field observations.	Guide students to: • Identify biotic and abiotic components on the field. • Construct food chains and webs from field observations.	Teaching tools, Ecological diagrams, Textbooks, Thermometers, Measuring tapes.
General Objective 2.0: Know the structure and function of ecosystems;						
4-6	2.1 Explain the major ecosystem types found in Nigeria. 2.2 Explain ecosystem	• Discuss the major ecosystem types found in Nigeria. • Discuss ecosystem	Teaching tools, Ecological diagrams, Textbooks,	• Visit a local ecosystem. • Trace nutrient cycling in a visited	Guide students to: • Visit and describe a local ecosystem • Trace nutrient cycling	Teaching tools, Ecological diagrams, Textbooks,

	services. 2.3 Explain the concept of biomass and productivity. 2.4 Explain nutrient cycling in ecosystems. 2.5 Explain the water cycle and its ecological significance to wildlife 2.6 Explain threats to ecosystem.	services. • Discuss the concept of biomass and productivity. • Discuss nutrient cycling in ecosystems. • Discuss the water cycle and its ecological significance to wildlife. • Discuss threats to ecosystem.	Thermometers, Measuring tapes, etc.	ecosystem.	in a visited ecosystem.	Thermometers, Measuring tapes.
General Objective 3.0: Understand wildlife populations and population dynamics						
7-9	3.1 Explain the following Wildlife terms: i. Population ii. Density iii. Natality iv. Morbidity v. Mortality vi. Age structure vii. Sex structure. 3.2 Explain carrying capacity and population regulation 3.3 Describe	• Explain the following Wildlife terms: – Population – Density – Natality – morbidity – Mortality – Age structure – Sex structure. • Discuss carrying capacity and population regulation. • Discuss	Teaching tools, Ecological diagrams, Textbooks, Thermometers, Measuring tapes, etc.	• Analyze Age and Sex structures data using a wildlife population as an example. • Carry out wildlife population estimation in the field.	Guide students to: • Analyze Age and Sex structures data using a wildlife population as an example. • Carry out wildlife population estimation in the field.	Teaching tools, Population graphs, Field census data, Camera trap, GPS, Drones, Binoculars, Measuring tape, Ranging polls.

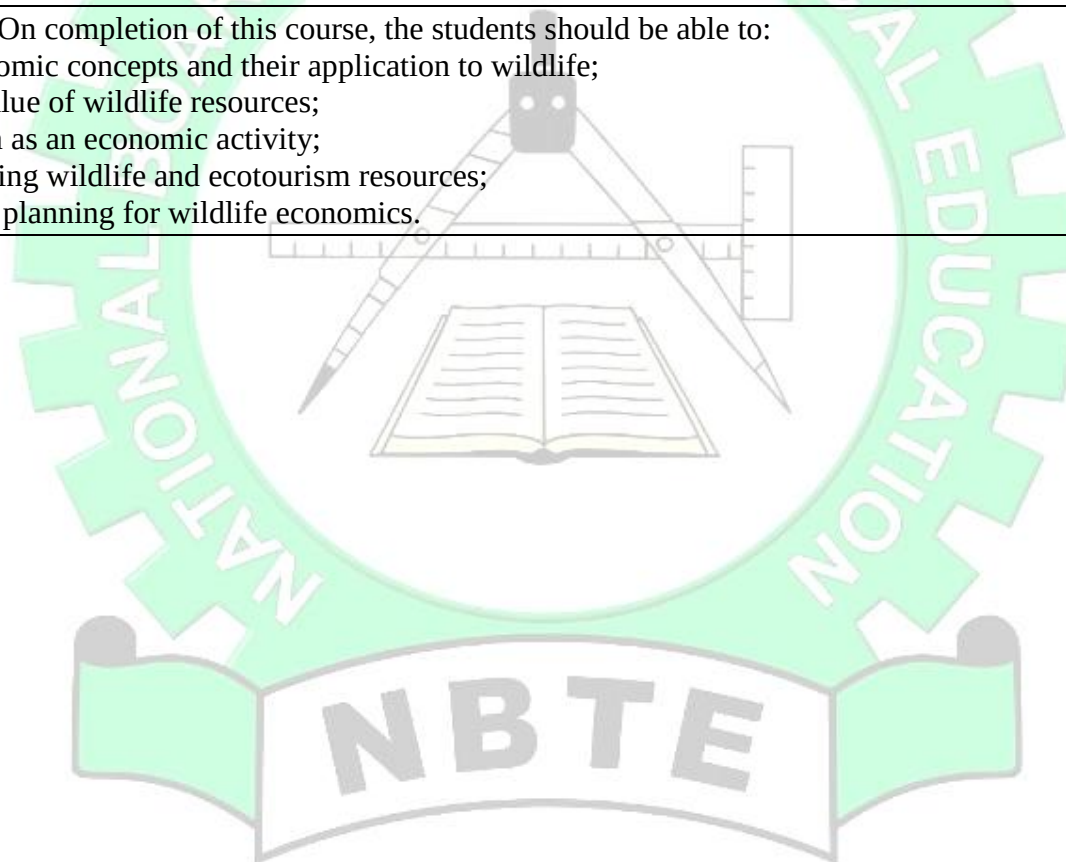
	population growth models 3.4 Explain the effects of density-dependent and density-independent factors 3.5 Describe methods of wildlife population estimation	population growth models. • Discuss the effects of density-dependent and density-independent factors affecting wildlife population. • Discuss methods of wildlife population inventory: • Direct and indirect methods.				
General Objective 4.0: Know habitat and its importance to wildlife;						
10-12	4.1 Explain wildlife habitat and its components: food, water, cover/shelter and space. 4.2 Explain habitat types. 4.3 Explain the concept of habitat suitability. 4.4 Explain methods of habitat assessment.	• Discuss wildlife habitat and its components: food, water, cover/shelter and space. • Discuss habitat types. • Discuss the concept of habitat suitability. • Discuss methods of habitat assessment. • Discuss habitat management	Teaching tools, Ecological diagrams, Textbooks, Thermometers, Measuring tapes, etc.	• Carry out habitat assessment at a designated site. • Develop a simple habitat management plan.	Guide students to: • Carry out habitat assessment at a designated site. • Develop a simple habitat management plan.	Habitat maps, Habitat assessment tools, GPS, Camera, Measuring tape, Thermometer, Rain gauge, Ranging poles, Quadrat.

	4.5 Explain habitat management principles.	principles.				
General Objective 5.0: Understand human impacts on wildlife ecology;						
13-15	5.1 Explain human activities that impact wildlife ecology. 5.2 Explain deforestation, urbanization and agricultural expansion effects on wildlife. 5.3 Explain pollution and its effects on wildlife. 5.4 Explain conservation strategies to mitigate human impacts on wildlife.	• Discuss human activities that impact wildlife ecology. • Discuss deforestation, urbanization and agricultural expansion effects on wildlife • Discuss pollution and its effects on wildlife. • Discuss conservation strategies to mitigate human impacts on wildlife.	Teaching tools, Ecological diagrams, Textbooks, Thermometers, Measuring tapes, etc.	• Identify human impacts on a visited habitat. • Propose conservation strategies for a degraded area.	Guide students to: • Identify human impacts on a visited habitat. • Propose conservation strategies for a degraded area.	Field notebooks, Degraded habitat site, Case study documents, Satellite images of degraded habitats, Documentary films.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						



WILDLIFE ECO-TOURISM ECONOMICS

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE ECO-TOURISM ECONOMICS	COURSE CODE: WEM 321	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1HOURS/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 2HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills on economics as applied to wildlife and eco-tourism management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand basic economic concepts and their application to wildlife; 2.0 Know the economic value of wildlife resources; 3.0 Understand ecotourism as an economic activity; 4.0 Know methods of valuing wildlife and ecotourism resources; 5.0 Understand policy and planning for wildlife economics.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE ECO-TOURISM ECONOMICS				COURSE CODE: WEM 321		CONTACT HOURS: 3HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: II				PRE-REQUISITE:		PRACTICAL: 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills on economics as applied to wildlife and eco-tourism management.						
GENERAL OBJECTIVE 1.0: Understand basic economic concepts and their application to wildlife;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain economics as it relates to wildlife management. 1.2 Explain supply and demand as it applies to wildlife resources. 1.3 Explain the concept of resources scarcity in wildlife context. 1.4 Explain externalities related to wildlife use and conservation.	• Discuss economics as it relates to wildlife management. • Discuss supply and demand as it applies to wildlife resources. • Explain the concept of resources scarcity in wildlife context. • Discuss externalities related to wildlife use and conservation.	Economic textbooks, Wildlife resource data, Teaching tools, Journals, etc.	• Analyze externalities of a local wildlife project.	• Guide students to analyze local wildlife project externalities.	Economic textbooks, Wildlife resource data, Teaching tools, Journals.
General Objective 2.0: Know the economic value of wildlife resources;						

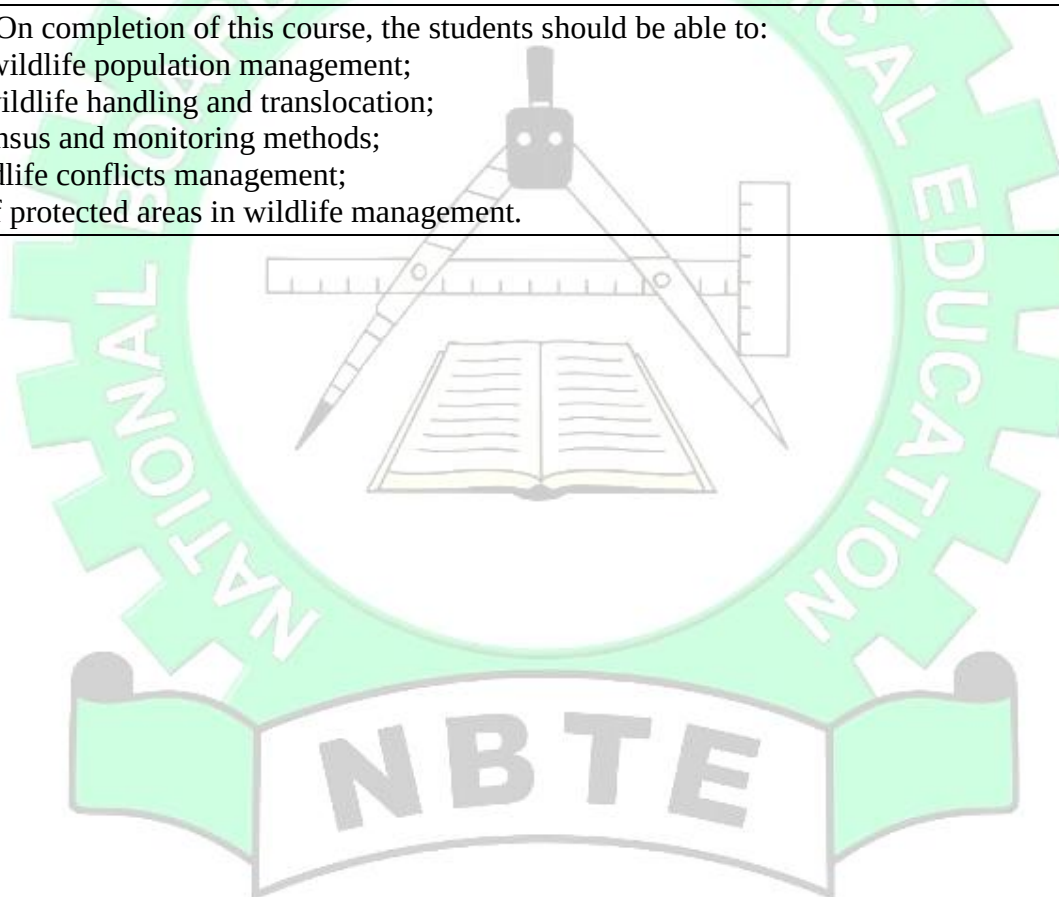
4-6	2.1 Explain consumptive and non-consumptive utilization wildlife resources. 2.2 Explain direct and indirect use of wildlife values with examples like: a Direct: i. Bush meat ii. Honey iii. Fish b Indirect: i. Wildlife pictures ii. Documentaries iii. Site seeing iv. Recreation 2.3 Explain the three non-use values of existence, option and bequest values. 2.4 Explain the Total Economic Values (TEV) framework for wildlife.	• Discuss consumptive and non-consumptive utilization wildlife resources. • Discuss direct and indirect use of wildlife values with examples like: • Direct: – Bush meat – Honey – Fish • Indirect: – Wildlife pictures – Documentaries – Site seeing – Recreation. • Discuss the three non-use values of existence, option and bequest values. • Discuss the Total Economic Values (TEV) framework for wildlife	Economic textbooks, Wildlife resource data, Teaching tools, Journals, etc.	• Apply TEV framework to value a local wildlife resource	• Guide students to apply TEV framework to value a local wildlife resource	Case study documents, Calculation tools, Wildlife valuation case studies, Teaching tools.
General Objective 3.0: Understand eco-tourism as an economic activity;						

7-9	3.1 Explain ecotourism and distinguish it from conventional tourism 3.2 Explain the economic benefits of eco-tourism to local communities 3.3 Explain the economic contributions of eco-tourism to national income 3.4 Explain the concept of community-based eco-tourism	• Discuss ecotourism and conventional tourism. • Discuss the economic benefits of eco-tourism to local communities, • Discuss the economic contributions of eco-tourism to national income. • Discuss the concept of community-based eco-tourism.	Economic textbooks, Wildlife resource data, Teaching tools, Journals, etc.	• Assess economic benefits of ecotourism to a local community.	• Guides students to assess economic benefits of ecotourism to a local community	Field assessment forms, Ecotourism site.
General Objective 4.0: Know methods of valuing wildlife and eco-tourism resources;						
10-12	4.1 Explain the travel cost method of wildlife valuation. 4.2 Explain the contingent valuation method. 4.3 Explain hedonic pricing method. 4.4 Explain the benefit transfer approach.	• Discuss the travel cost method of wildlife valuation. • Discuss the contingent valuation method. • Discuss hedonic pricing method. • Discuss the benefit transfer approach.	Economic textbooks, Wildlife resource data, Teaching tools, Journals, etc.	• Assess economic benefits of ecotourism to a local community	• Guides students to assess economic benefits of ecotourism to a local community	Vehicle Field assessment forms Ecotourism site
General Objective 5.0: Understand policy and planning for wildlife economics;						

13-15	5.1 Explain the role of government in wildlife economic policies 5.2 Explain national policies on wildlife and ecotourism in Nigeria 5.3 Explain economic instruments for wildlife conservation 5.4 Explain international frameworks affecting wildlife economics	• Discuss the role of government in wildlife economic policies. • Discuss national policies on wildlife and ecotourism in Nigeria. • Discuss economic instruments for wildlife conservation. • Discuss international frameworks affecting wildlife economic policies.	Economic textbooks, Wildlife resource data, Teaching tools, Journals, etc.	• Review a Nigerian wildlife policy document.	• Guide students to review and summarize Nigerian wildlife economic policies.	Policy documents CITES/CBD documents Teaching tools
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						

WILDLIFE MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE MANAGEMENT	COURSE CODE: WEM 322	CONTACT HOURS: 4HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills in wildlife management techniques.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand advanced wildlife population management; 2.0 Know techniques for wildlife handling and translocation; 3.0 Understand wildlife census and monitoring methods; 4.0 understand human-wildlife conflicts management; 5.0 Understand the roles of protected areas in wildlife management.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE MANAGEMENT			COURSE CODE:WEM 322		CONTACT HOURS: 4HOURS/WEEK	
COURSE TITLE: WILDLIFE MANAGEMENT			CREDIT UNIT: 4		THEORETICAL: 1HOURS/WEEK	
YEAR: I SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in wildlife management techniques.						
General Objective 1.0: Understand advanced wildlife population management;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain Maximum Sustained Yield (MSY) and its application. 1.2 Explain population manipulation techniques: cropping, translocation, supplemental feeding. 1.3 Explain management of endangered and threatened species. 1.4 Explain trophy hunting and its roles in population management.	- Discuss Maximum Sustained Yield (MSY) and its application. - Explain population manipulation techniques: cropping, translocation, supplemental feeding. - Discuss management of endangered and threatened species. - Discuss trophy hunting and its roles in population management.	Population data case study, population data sheet, GPS, Multimedia projector, Slides, Textbooks, Whiteboard, Marker, Camera traps, Drone, etc.	- Calculate MSY for a given wildlife population. - Develop a management plan for an endangered species.	Guide students to: - Calculate MSY for a given wildlife population. - Develop a management plan for an endangered species.	Population data case study, population data sheet, GPS, Camera traps, Management plan templates.
General Objective 2.0: Know the techniques in wildlife handling and translocation;						

4-6	2.1 Explain wildlife handling and translocation. 2.2 Explain equipment and techniques use in capturing wildlife. 2.3 Explain chemical immobilization of wildlife. 2.4 Describe procedures for tagging, marking and radio-telemetry. 2.5 Describe post-translocation monitoring and management.	• Discuss wildlife handling and translocation. • Discuss equipment and techniques use in capturing wildlife. • Discuss chemical immobilization of wildlife. • Discuss procedures for tagging, marking and radio-telemetry. • Discuss post-translocation monitoring and management.	Population data case study, population data sheet, GPS, Multimedia projector, Slides, Textbooks, Whiteboard, Marker, Camera traps, Drone, etc.	• Demonstrate wildlife capture techniques. • Practice tagging and marking on models of wildlife animals.	Guide students to: • Demonstrate wildlife capture techniques. • Practice tagging and marking on models of wildlife animals.	Capture equipment, Capture net, Box trap, live trap, Pit fall trap, Dart gun, Immobilization drugs, Tags, Markers, Transport crates, Holding cages, Animal carriers binoculars.
General Objective 3.0: Understand wildlife census and monitoring methods;						
7-9	3.1 Explain direct counting methods: Total count, sample count 3.2 Explain indirect counting methods: track counts, fecal droppings counts, nest count. 3.3 Explain aerial survey methods of	• Discuss direct counting methods: Total count, sample count. • Discuss indirect counting methods: track counts, fecal droppings counts, nest count. • Discuss aerial survey methods of counting	Population data case study, population data sheet, GPS, Multimedia projector, Slides, Textbooks, Whiteboard, Marker, Camera traps,	• Conduct a sample count on the field. • Identify wildlife tracks and estimate population using tracks and other indices.	Guide students to: • Conduct a sample count on the field. • Identify wildlife tracks and estimate population using tracks and other indices.	Census data, Tracks specimens, Drones, Aircraft, Aerial survey photographs, Camera traps, binoculars etc.

	counting wildlife 3.4 Explain mark-recapture methods 3.5 Explain monitoring protocols for wildlife populations	wildlife. • Discuss mark-recapture methods. • Discuss monitoring protocols for wildlife populations.	Drone, etc.			
General Objective 4.0: Understand human-wildlife conflicts management;						
10-12	4.1 Explain the concept of human-wildlife conflicts. 4.2 Explain crop raiding by wildlife. 4.3 Explain livestock depredation by wildlife. 4.4 Explain human-wildlife conflict and resolution strategies. 4.5 Explain methods of repelling and deterring wildlife from human settlements.	• Discuss the concept of human-wildlife conflicts. • Discuss crop raiding by wildlife. • Discuss livestock depredation by wildlife. • Discuss human-wildlife conflict and resolution strategies. • Discuss methods of repelling and deterring wildlife from human settlements.	Population data case study, population data sheet, GPS, Multimedia projector, Slides, Textbooks, Whiteboard, Marker, Camera traps, Drone, etc.	• Assess crop damage by wildlife in an agricultural area. • Demonstrate a wildlife deterrent method.	Guide students to: • Assess crop damage by wildlife in an agricultural area. • Demonstrate a wildlife deterrent method.	Case studies, Conflict resolution frameworks, Data collection tools, Questionnaire, Interview guide, GPS.
General Objective 5.0: Understand the role of protected areas in wildlife management;						
13-15	5.1 Explain protected areas and their categories (IUCN). 5.2 Explain the network of	• Discuss protected areas and their categories (IUCN). • Discuss the network of protected areas in	Population data case study, population data sheet, GPS, Multimedia	• Identify protected areas on a map of Nigeria. • Develop a	Guide students to: • Identify protected areas on a map of Nigeria. • Develop a simplified	IUCN category documents, Maps of Nigerian PAs,

	protected areas in Nigeria. 5.3 Explain management planning for protected areas. 5.4 Explain challenges and opportunities in protected area management in Nigeria.	Nigeria. • Discuss management planning for protected areas. • Discuss challenges and opportunities in protected area management in Nigeria	projector, Slides, Textbooks, Whiteboard, Marker, Camera traps, Drone, etc.	simplified management plan for a protected area.	management plan for a protected area.	Management plan.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						

WILDLIFE CONSERVATION LAW, POLICY AND GOVERNANCE

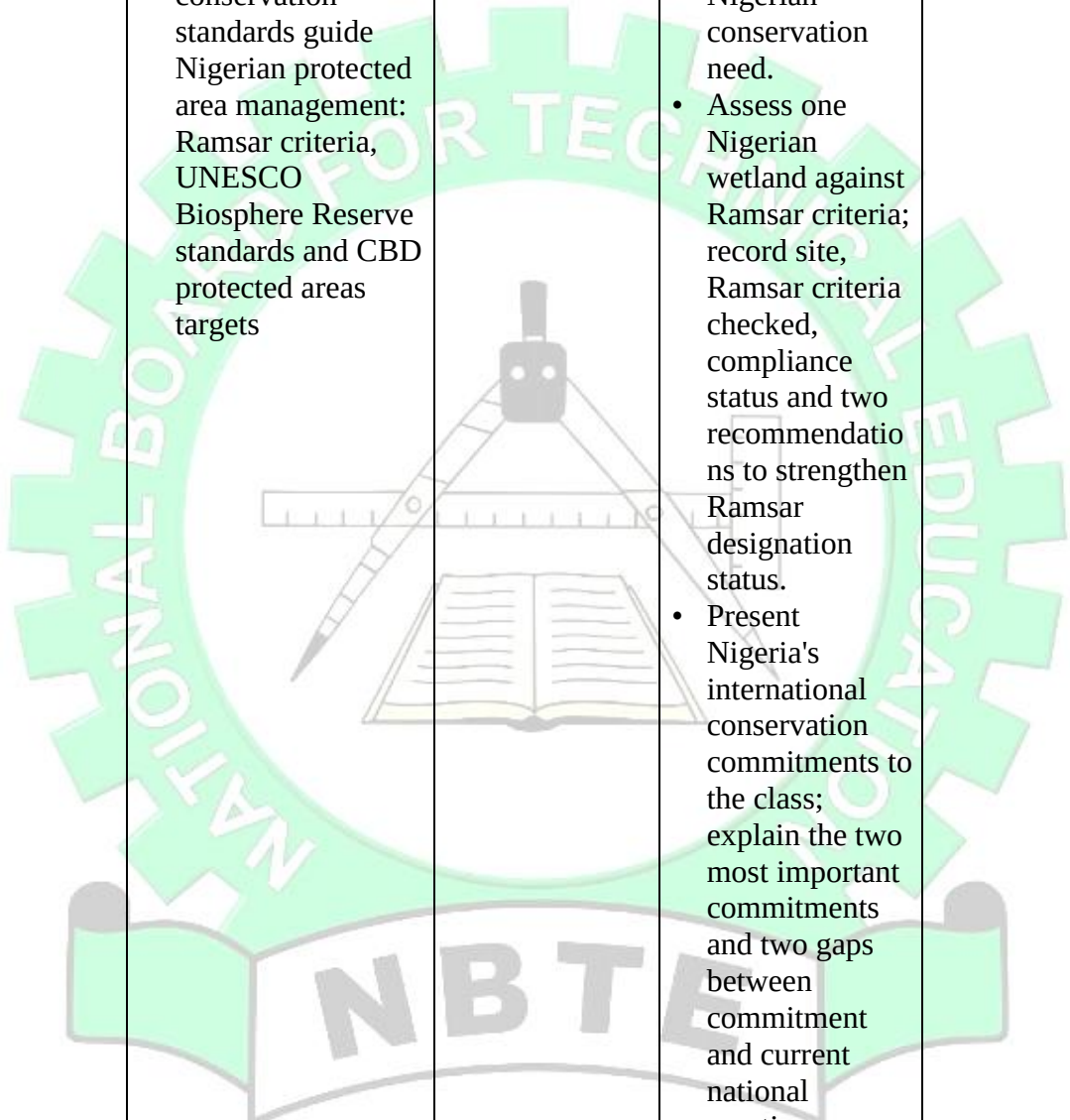
PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE CONSERVATION LAW, POLICY AND GOVERNANCE	COURSE CODE: WEM 323	CONTACT HOURS: 3 HOUR/WEEK
	CREDIT UNIT: 3	THEORETICAL:1 HOUR/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 2 HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills of wildlife conservation laws, national and international treaties, agreements, frameworks and governance systems for effective conservation and ecotourism management in Nigeria.		
GENERAL OBJECTIVES: On completion of this course, the student should be able to: 1.0 Understand Nigerian wildlife legislation and regulatory frameworks; 2.0 Understand international wildlife conservation conventions and agreements; 3.0 Apply wildlife law enforcement and anti-poaching governance; 4.0 Apply conservation policy analysis and advocacy skills; 5.0 Understand CITES and wildlife trade regulation in Nigeria; 6.0 Apply conservation governance assessment and reform planning.		

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE CONSERVATION LAW, POLICY AND GOVERNANCE				COURSE CODE: WEM 323		CONTACT HOURS: 3HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: II				PRE-REQUISITE:		PRACTICAL: 2HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills of wildlife conservation laws, national and international treaties, agreements, frameworks and governance systems for effective conservation and ecotourism management in Nigeria.						
GENERAL OBJECTIVE 1.0: Understand Nigerian wildlife legislation and regulatory frameworks;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1 – 2	1.1 Describe the major Nigerian wildlife laws and regulations: Endangered Species Act, National Parks Service Act, Forestry Act, state wildlife laws and other international treaties. 1.2 Explain the roles and mandates of wildlife regulatory agencies: NPPCA, state forestry and wildlife departments, NESREA and NEMA. 1.3 Describe wildlife permit systems in Nigeria: hunting licences, game licences, wildlife collection permits and export permits. 1.4 Explain the penalties and	- Discuss the major Nigerian wildlife laws and regulations: Endangered Species Act, National Parks Service Act, Forestry Act state wildlife laws and other international treaties. - Discuss the roles and mandates of wildlife regulatory agencies: NPPCA, state forestry and wildlife departments,	Endangered Species Act, National Parks Service Act, Nigerian wildlife legislation guide, Wildlife regulatory agency mandates guide, Wildlife permit system guide, Wildlife crime penalties guide, Nigerian wildlife legislation gap	- Analyse three key provisions of the Nigerian Endangered Species Act relevant to wildlife managers. - Record provision, implication for management and one enforcement challenge. - Map the wildlife regulatory agencies in	Guide students to: - Analyse three key provisions of the Nigerian Endangered Species Act relevant to wildlife managers; record provision, implication for management and one enforcement challenge. - Map the wildlife regulatory agencies in Nigeria; record agency, mandate, jurisdictional level, key enforcement power and one coordination challenge with other agencies. - Research the wildlife	Endangered Species Act, National Parks Service Act, Nigerian wildlife legislation documents, Wildlife regulatory agency mapping template, Wildlife permit requirement research guide, Wildlife legislation gap analysis

	enforcement mechanisms for wildlife crimes in Nigeria. 1.5 Describe how gaps in Nigerian wildlife legislation create challenges for effective conservation and illegal wildlife trade prevention.	NESREA and NEMA. • Discuss wildlife permit systems in Nigeria: hunting licenses, game licenses, wildlife collection permits and export permits. • Discuss the penalties and enforcement mechanisms for wildlife crimes in Nigeria. • Discuss how gaps in Nigerian wildlife legislation create challenges for effective conservation and illegal wildlife trade prevention.	analysis, Multimedia projector, Whiteboard, Marker, Textbooks, etc.	Nigeria • Record agency, mandate, jurisdictional level, key enforcement power and one coordination challenge with other agencies. • Research the wildlife permit requirements for one wildlife management activity • Record permit type, issuing authority, application process, conditions and penalty for violation • Identify two gaps in Nigerian wildlife legislation that enable illegal wildlife trade; • Record each gap, how it is	permit requirements for one wildlife management activity; record permit type, issuing authority, application process, conditions and penalty for violation. • Identify two gaps in Nigerian wildlife legislation that enable illegal wildlife trade; record each gap, how it is exploited and one specific legislative amendment to close the gap. • Present the wildlife regulatory agency map to the class; explain two coordination challenges and recommend one institutional reform to improve regulatory effectiveness.	template, Multimedia projector, PPE, Smartphones, Field notebooks.
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				exploited and one specific legislative amendment to close the gap. • Present the wildlife regulatory agency map to the class • Explain two coordination challenges and recommend one institutional reform to improve regulatory effectiveness		
General Objective 2.0: Understand international wildlife conservation conventions and agreements;						
3 – 4	2.1 Describe the major international wildlife conservation conventions: CBD, Ramsar Convention, Bonn Convention, CMS and the Kunming-Montreal Global Biodiversity Framework. 2.2 Explain Nigeria's obligations under	• Discuss the major international wildlife conservation conventions: CBD, Ramsar Convention, Bonn Convention, CMS and the Kunming-Montreal Global Biodiversity	Endangered Species Act, National Parks Service Act, Nigerian wildlife legislation guide, Wildlife regulatory agency	• Research Nigeria's CBD National Biodiversity Strategy and Action Plan • Record biodiversity targets, implementation progress, key	Guide students to: • Research CBD NBSAP research; review records. • Provide international obligation mapping template; guide preparation; review accuracy. • Guide funding opportunity research;	CBD NBSAP documents, International conservation convention guides, Ramsar criteria guide, International conservation funding

	international biodiversity and conservation agreements and current compliance status. 2.3 Describe regional wildlife conservation frameworks: ECOWAS wildlife protocol, African Convention on Nature and Natural Resources and trans boundary conservation agreements. 2.4 Explain how international conservation funding mechanisms — GEF, GBFF, GCF — support Nigerian wildlife conservation. 2.5 Explain how international conservation standards guide Nigerian protected area management: Ramsar criteria, UNESCO Biosphere Reserve standards and CBD protected areas targets.	Framework. • Explain Nigeria's obligations under international biodiversity and conservation agreements and current compliance status • Discuss regional wildlife conservation frameworks: ECOWAS wildlife protocol, African Convention on Nature and Natural Resources and trans boundary conservation agreements. • Explain how international conservation funding mechanisms — GEF, GBFF, GCF — support Nigerian wildlife conservation. • Discuss how international	mandates guide, Wildlife permit system guide, Wildlife crime penalties guide, Nigerian wildlife legislation gap analysis, Multimedia projector, Whiteboard, Marker, Textbooks, etc.	challenges and two priority actions needed. • Map Nigeria's international conservation obligations relevant to one national park • Record each convention, specific obligations, current compliance status and one improvement needed • Identify one international conservation funding opportunity for one Nigerian wildlife programmed • Record funder, fund, eligible activities, application process and match to	review match to Nigerian need. • Guide Ramsar criteria assessment; review accuracy. • Facilitate presentations; give structured feedback.	research guide, Multimedia projector, PPE, Smartphones, field notebooks.
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		conservation standards guide Nigerian protected area management: Ramsar criteria, UNESCO Biosphere Reserve standards and CBD protected areas targets		Nigerian conservation need. - Assess one Nigerian wetland against Ramsar criteria; record site, Ramsar criteria checked, compliance status and two recommendations to strengthen Ramsar designation status. - Present Nigeria's international conservation commitments to the class; explain the two most important commitments and two gaps between commitment and current national practice	
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General Objective 3.0: Apply wildlife law enforcement and anti-poaching governance;						
5 – 6	3.1 Describe the ranger law enforcement system in Nigeria: ranger authority, patrol protocols, evidence collection and prosecution referral. 3.2 Explain how to design an anti-poaching patrol strategy: patrol zones, patrol frequency, intelligence-led operations and SMART patrol monitoring. 3.3 Describe wildlife crime investigation procedures: crime scene management, evidence preservation and witness statements. 3.4 Explain how to use technology in wildlife law enforcement: SMART, PAWS, camera traps, drone surveillance and informant networks. 3.5 Describe how community ranger programmes and conservancy scouts strengthen wildlife law enforcement at local level. 3.6 Explain wildlife forensic techniques and	• Discuss the ranger law enforcement system in Nigeria: ranger authority, patrol protocols, evidence collection and prosecution referral. • Discuss how to design an anti-poaching patrol strategy: patrol zones, patrol frequency, intelligence-led operations and SMART patrol monitoring. • Discuss wildlife crime investigation procedures: crime scene management, evidence preservation and witness statements. • Discuss how to use technology in wildlife law enforcement: SMART, PAWS, camera traps, drone	Endangered Species Act, National Parks Service Act, Nigerian wildlife legislation guide, Wildlife regulatory agency mandates guide, Wildlife permit system guide, Wildlife crime penalties guide, Nigerian wildlife legislation gap analysis, Multimedia projector, Whiteboard, Marker, Textbooks, etc.	• Design an anti-poaching patrol strategy for one protected area • Record patrol zones, frequency, team composition, intelligence sources, equipment and SMART data collection plan. • Demonstrate wildlife crime scene management procedure • Record crime scene assessment steps, evidence types collected, preservation method and chain of custody documentation. • Prepare a	Guide students to; • Design an anti-poaching patrol strategy for one protected area; record patrol zones, frequency, team composition, intelligence sources, equipment and SMART data collection plan. • Demonstrate wildlife crime scene management procedure; record crime scene assessment steps, evidence types collected, preservation method and chain of custody documentation • Prepare a ranger patrol report for one simulated patrol; record patrol route, distance covered, threats detected, wildlife observed and recommended management response. • Develop a community ranger programme for one support zone community, record	Anti-poaching patrol strategy template, Crime scene management guide, Ranger patrol report template, community ranger programme Design guide, SMART patrol Dataset, Computers, Multimedia projector, PPE, Smartphones, Field notebooks, GPS, Digital camera.

	intelligence management.	surveillance and informant networks. • Discuss how community ranger programmes and conservancy scouts strengthen wildlife law enforcement at local level. • Explain wildlife forensic techniques and intelligence management.		ranger patrol report for one simulated patrol • Record patrol route, distance covered, threats detected, wildlife observed and recommended management response. • Develop a community ranger programme for one support zone community, record ranger roles, training requirements, patrol areas, equipment and benefit package. • Analyse SMART patrol data from one quarter	ranger roles, training requirements, patrol areas, equipment and benefit package. • Analyse SMART patrol data from one quarter; record patrol coverage, top threats detected, species detections and three management recommendations based on the data.	
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				Record patrol coverage, top threats detected, species detections and three management recommendations based on the data.		
General Objective 4.0: Apply conservation policy analysis and advocacy skills;						
7 – 8	4.1 Describe conservation policy analysis: policy content analysis, stakeholder analysis, political economy analysis and policy option assessment. 4.2 Explain how to prepare a conservation policy brief for government decision-makers on one Nigerian wildlife management issue. 4.3 Describe how to design and implement a conservation advocacy campaign targeting policy change. 4.4 Explain how to use	- Discuss conservation policy analysis: policy content analysis, stakeholder analysis, political economy analysis and policy option assessment. - Discuss how to prepare a conservation policy brief for government decision-makers on one Nigerian wildlife management issue. - Discuss how to	Endangered Species Act, National Parks Service Act, Nigerian wildlife legislation guide, Wildlife regulatory agency mandates guide, Wildlife permit system guide, Wildlife crime penalties guide, Nigerian wildlife legislation gap	- Conduct a policy analysis of one Nigerian wildlife conservation issue. - Record problem, current policy, stakeholders, policy gaps, two options and recommended option with rationale. - Prepare a two-page conservation policy brief on	Guide students to; - Conduct a policy analysis of one Nigerian wildlife conservation issue; record problem, current policy, stakeholders, policy gaps, two options and recommended option with rationale. - Prepare a two-page conservation policy brief on one Nigerian wildlife management issue; record problem, evidence, policy recommendation and expected outcome.	Conservation policy analysis framework template, Conservation policy brief template, Advocacy campaign design guide, Conservation evidence compilation guide, Computers, GPS, Multimedia projector, PPE,

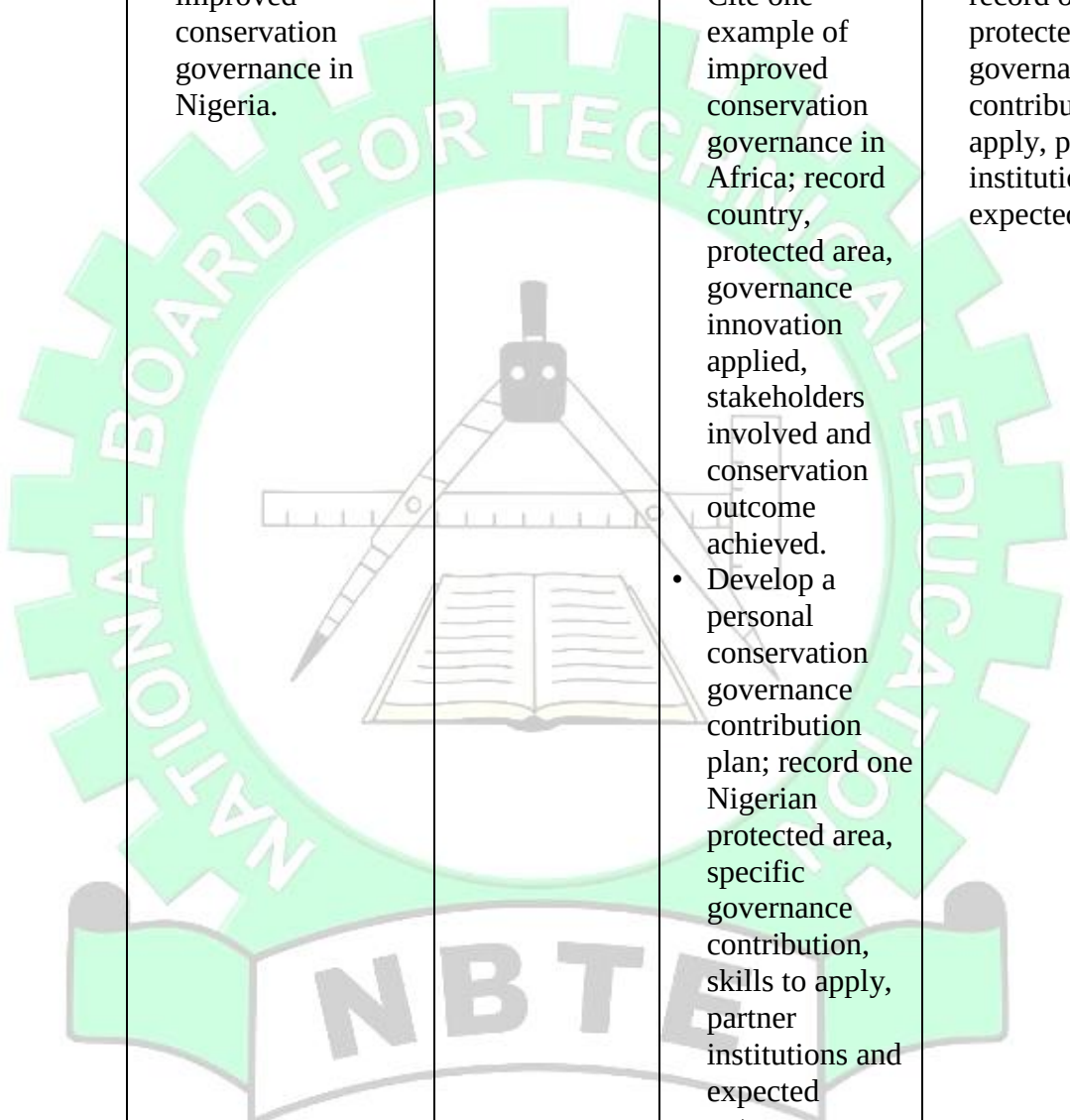
	scientific evidence, traditional knowledge and community data to support conservation policy advocacy. 4.5 Describe how wildlife conservation organizations engage government, media and the public to advance conservation policy in Nigeria.	design and implement a conservation advocacy campaign targeting policy change. • Explain how to use scientific evidence, traditional knowledge and community data to support conservation policy advocacy. • Discuss how wildlife conservation organizations engage government, media and the public to advance conservation policy in Nigeria.	analysis, Multimedia projector, Whiteboard, Marker, Textbooks, etc.	one Nigerian wildlife management issue. • Record problem, evidence, policy recommendation and expected outcome. • Design a conservation advocacy campaign for one Nigerian wildlife policy issue; record issue, target decision-maker, key message, strategy, channel and three-month action plan. • Compile three types of evidence to support one conservation policy recommendation.	• Design a conservation advocacy campaign for one Nigerian wildlife policy issue; record issue, target decision-maker, key message, strategy, channel and three-month action plan. • Compile three types of evidence to support one conservation policy recommendation; record each evidence type, source, key finding and how it supports the recommendation. • Present the conservation policy brief as a mock briefing to a government official; respond to three questions and record feedback for brief improvement.	Smartphones, Field notebook, Digital camera.
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				- Record each evidence type, source, key finding and how it supports the recommendation. - Present the conservation policy brief as a mock briefing to a government official.		
General Objective 5.0: Understand CITES and wildlife trade regulation in Nigeria;						
9 – 10	5.1 Explain CITES: its purpose, Appendix I, II and III species listings, permit requirements and how it operates in Nigeria. 5.2 Explain how CITES permits are issued and checked in Nigeria: CITES Management Authority, Scientific Authority and other law enforcement agencies. 5.3 Describe the illegal wildlife trade in Nigeria: major traded species, trafficking routes, criminal networks and	- Explain CITES: its purpose, Appendix I, II and III species listings, permit requirements and how it operates in Nigeria. - Discuss how CITES permits are issued and checked in Nigeria: CITES Management Authority, Scientific Authority and other law enforcement agencies. - Explain the illegal	CITES guide, Nigerian CITES management authority guide, Nigerian illegal wildlife trade information, Nigeria's illegal wildlife trade response guide, Ecotourism and illegal wildlife trade reduction guide, Projector, Whiteboard, Marker, etc.	- Classify ten Nigerian wildlife species by CITES Appendix; record species, Appendix classification, reason for listing and trade permit requirement for each. - Research the CITES permit process for exporting one	Guide students to; - Classify ten Nigerian wildlife species by CITES Appendix; record species, Appendix classification, reason for listing and trade permit requirement for each. - Research the CITES permit process for exporting one Nigerian wildlife product; record product, management authority, permit type, required	CITES appendix species list, Nigerian CITES management authority guide, Illegal wildlife trade route information, Demand reduction communication guide, Ecotourism and illegal trade reduction

	scale of trade. 5.4 Explain how Nigeria is addressing illegal wildlife trade, traffic, wildlife justice commission, law enforcement operations and demand reduction. 5.5 Describe how ecotourism and sustainable wildlife use can reduce pressure on illegally traded Nigerian wildlife species.	wildlife trade in Nigeria: major traded species, trafficking routes, criminal networks and scale of trade. • Discuss how Nigeria is addressing illegal wildlife trade, traffic, wildlife justice commission, law enforcement operations and demand reduction. • Discuss how ecotourism and sustainable wildlife use can reduce pressure on illegally traded Nigerian wildlife species.		Nigerian wildlife product; record product, management authority, permit type, required documentation and inspection procedure. • Identify three major illegal wildlife trade routes affecting Nigeria; record species traded, trafficking route, destination market and one law enforcement intervention. • Prepare a demand reduction communication message for one illegally traded Nigerian wildlife species;	documentation and inspection procedure. • Identify three major illegal wildlife trade routes affecting Nigeria; record species traded, trafficking route, destination market and one law enforcement intervention. • Prepare a demand reduction communication message for one illegally traded Nigerian wildlife species; record species, target consumer group, key message and communication channel • Assess how ecotourism can reduce pressure on one illegally traded Nigerian wildlife species; record species, ecotourism opportunity, income benefit and expected	template, Computers, Digital camera, GPS, Multimedia projector, PPE, Smartphones, field notebooks.
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				record species, target consumer group, key message and communication channel. Assess how ecotourism can reduce pressure on one illegally traded Nigerian wildlife species; record species, ecotourism opportunity, income benefit and expected demand reduction.	demand reduction.	
General Objective 6.0: Apply conservation governance assessment and reform planning;						
11 – 15	6.1 Describe conservation governance assessment frameworks: IUCN governance quality criteria, METT governance component and conservation governance scorecard. 6.2 Explain how to assess the governance quality of one	Discuss conservation governance assessment frameworks: IUCN governance quality criteria, METT governance component and conservation	Conservation governance assessment frameworks, IUCN governance quality criteria, Conservation governance assessment tool,	Assess the governance quality of one Nigerian protected area using a structured tool; record scores for legitimacy, transparency,	Guide students to: Assess the governance quality of one Nigerian protected area using a structured tool; record scores for legitimacy, transparency, accountability, participation and fairness dimensions.	Conservation governance assessment tool, Nigerian protected area governance information, Conservation governance

	Nigerian protected area using a structured governance assessment tool. 6.3 Describe common Nigerian conservation governance failures: corruption, exclusion of indigenous peoples, weak accountability and poor coordination. 6.4 Explain how to develop a governance reform plan for one Nigerian protected area addressing key governance gaps. 6.5 Describe how HND Wildlife and Ecotourism graduates can contribute to improved conservation governance in Nigeria.	governance scorecard. • Discuss how to assess the governance quality of one Nigerian protected area using a structured governance assessment tool. • Explain common Nigerian conservation governance failures: corruption, exclusion of indigenous peoples, weak accountability and poor coordination. • Discuss how to develop a governance reform plan for one Nigerian protected area addressing key governance gaps. • Discuss how HND Wildlife and Ecotourism graduates can contribute to	Nigerian governance failures guide, conservation governance reform plan template, Computers, digital camera, GPS, Projector, Whiteboard, Marker, etc.	accountability, participation and fairness dimensions. • Identify three governance failures in one Nigerian protected area; record each failure, cause, conservation consequence and one governance reform recommendation. • Develop a governance reform plan for one Nigerian protected area; record priority governance gaps, reform actions, responsible institution, timeline and monitoring indicator.	• Identify three governance failures in one Nigerian protected area; record each failure, cause, conservation consequence and one governance reform recommendation. • Develop a governance reform plan for one Nigerian protected area; record priority governance gaps, reform actions, responsible institution, timeline and monitoring indicator. • Cite one example of improved conservation governance in Africa; record country, protected area, governance innovation applied, stakeholders involved and conservation outcome achieved. • Develop a personal conservation governance contribution plan;	reform plan template, African conservation governance research guide, Personal governance contribution plan template, Multimedia projector, Computers, Digital camera, GPS, PPE, Smartphones, Field notebooks.
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		improved conservation governance in Nigeria.		• Cite one example of improved conservation governance in Africa; record country, protected area, governance innovation applied, stakeholders involved and conservation outcome achieved. • Develop a personal conservation governance contribution plan; record one Nigerian protected area, specific governance contribution, skills to apply, partner institutions and expected outcome	record one Nigerian protected area, specific governance contribution, skills to apply, partner institutions and expected outcome	
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COURSE ASSESSMENT:

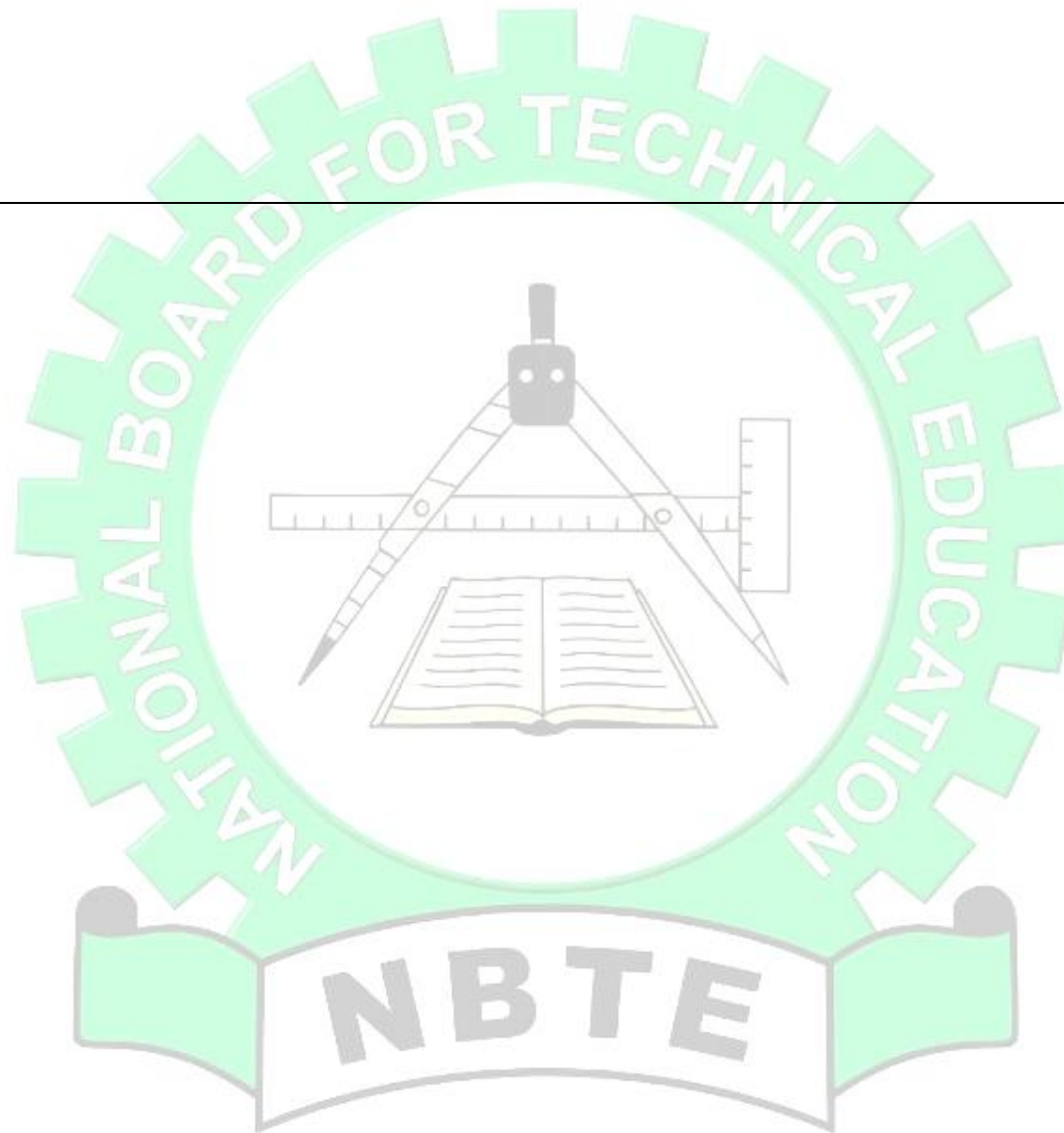
Course Work: 10%

Test/Assignments: 10%

Practical: 40%

Examination: 40%

Total: 100%



CLIMATE CHANGE IMPACT ON WILDLIFE CONSERVATION

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: CLIMATE CHANGE IMPACT ON WILDLIFE CONSERVATION	COURSE CODE: WEM 324	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 2HOURS/WEEK
GOAL: This course is designed to provide students with knowledge and skills on the impact of climate change on wildlife habitats, migration patterns and phrenological changes.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the concepts of climate change; 2.0 Understand the impact of climate change on wildlife habitats; 3.0 Understand the impact of climate change on wildlife migration patterns; 4.0 Know impact of climate change on phonological changes on wildlife; 5.0 understand climate change mitigating measures.		

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: CLIMATE CHANGE IMPACT ON WILDLIFE CONSERVATION			COURSE CODE: WEM 324		CONTACT HOURS: 3HOURS/WEEK	
			CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK	
YEAR: I SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 2HOUR/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with knowledge and skills on the impact of climate change on wildlife habitats, migration patterns and phonological changes.						
GENERAL OBJECTIVE 1.0: Understand the concepts of climate change;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain the concepts of climate change. 1.2 Explain the drivers of climate change. 1.3 Explain climate change processes. 1.4 Explain agents of climate change 1.5 Explain mitigation and adaptation strategies for wildlife conservation under climate change.	• Discuss the concepts of climate change. • Discuss climate change processes. • State the agents of climate change. • Discuss mitigation and adaptation strategies for wildlife conservation under climate change.	Charts, Projector, Multimedia presentations, Textbooks, etc.			
General Objective 2.0: Understand the impact of climate change on wildlife habitats						

4-8	2.1 Explain the impact of climate change on wildlife habitats. 2.2 Explain the effects of increased carbon emissions on wildlife habitats. 2.3 Explain climate impacts on aquatic wildlife habitats.	• Explain wildlife habitats. • Explain the effects of increased carbon emissions on wildlife habitats. • Explain climate impacts on aquatic wildlife habitats.	Charts, Computer, Projector, Conservation plans, Policy documents, GIS tools, etc.	• Assess climate-induced changes in terrestrial wildlife habitats. • Analyze climate impacts on aquatic wildlife habitats.	Guide student to: • Assess climate-induced changes in terrestrial wildlife habitats. • Analyze climate impacts on aquatic wildlife habitats.	Conservation plans, Policy documents, GIS tools, Charts, computer, Multimedia projector.
General Objective 3.0: Understand the impact of climate change on wildlife migration patterns						
9-12	3.1 Explain wildlife migration concept. 3.2 Explain wildlife migration drivers. 3.3 Explain climate change impacts on wildlife migration patterns.	• Explain wildlife migration concept. • Explain wildlife migration drivers • Explain climate change impacts on wildlife migration patterns.	Charts, Projector, Computers, Research papers, Whiteboard, Maker, etc.	• Evaluate climate change impacts on wildlife migration patterns.	• Guide students to evaluate climate change impacts on wildlife migration patterns.	Computers, Research papers, Tracking datasets, Video clips, Wildlife documentaries, Migration maps, GPS tracking data.
General Objective 4.0: Know impact of climate change on phenological changes on wildlife						
12 – 13	4.1 Explain the concept of phenology. 4.2 Explain importance of	• Explain the concept of phenology. • Explain importance of phenology in wildlife conservation.	Safety charts, Projector, Marker, Whiteboard, etc.	• Assess climate-induced phenological changes in wildlife species.	Guide students to: • Assess climate-induced phenological changes in wildlife species.	Field equipment, GPS, Weather instruments,

	phenology in wildlife conservation. 4.3 Explain assessment of climate-induced phenological changes in wildlife species. 4.4 Explain the impacts of phonological mismatches on biodiversity.	• Explain assessment of climate-induced phonological changes in wildlife species. • Explain the impacts of phrenological mismatches on biodiversity.		• Investigate the impacts of phonological mismatches on biodiversity.	• Investigate the impacts of phonological mismatches on biodiversity.	Data sheets.
General Objective 5.0: understand climate change mitigating measures						
14-15	5.1 Explain climate change mitigation 5.2 Explain Afforestation and reforestation. 5.3 Explain forest conservation. 5.4 Explain carbon capture and storage. 5.5 Explain sustainable transportation. 5.6 Explain renewable energy development.	• Discuss climate change mitigation • Discuss afforestation and reforestation. • Describe forest conservation. • Explain carbon capture and storage. • Discuss sustainable transportation. • Discuss renewable energy development.	Safety charts, Whiteboard, Projector, Marker, etc.	• Evaluate climate change mitigating factors.	• Guide students to evaluate climate change mitigating factors.	Field equipment, GPS, Weather instruments, Data sheets.

COURSE ASSESSMENT:

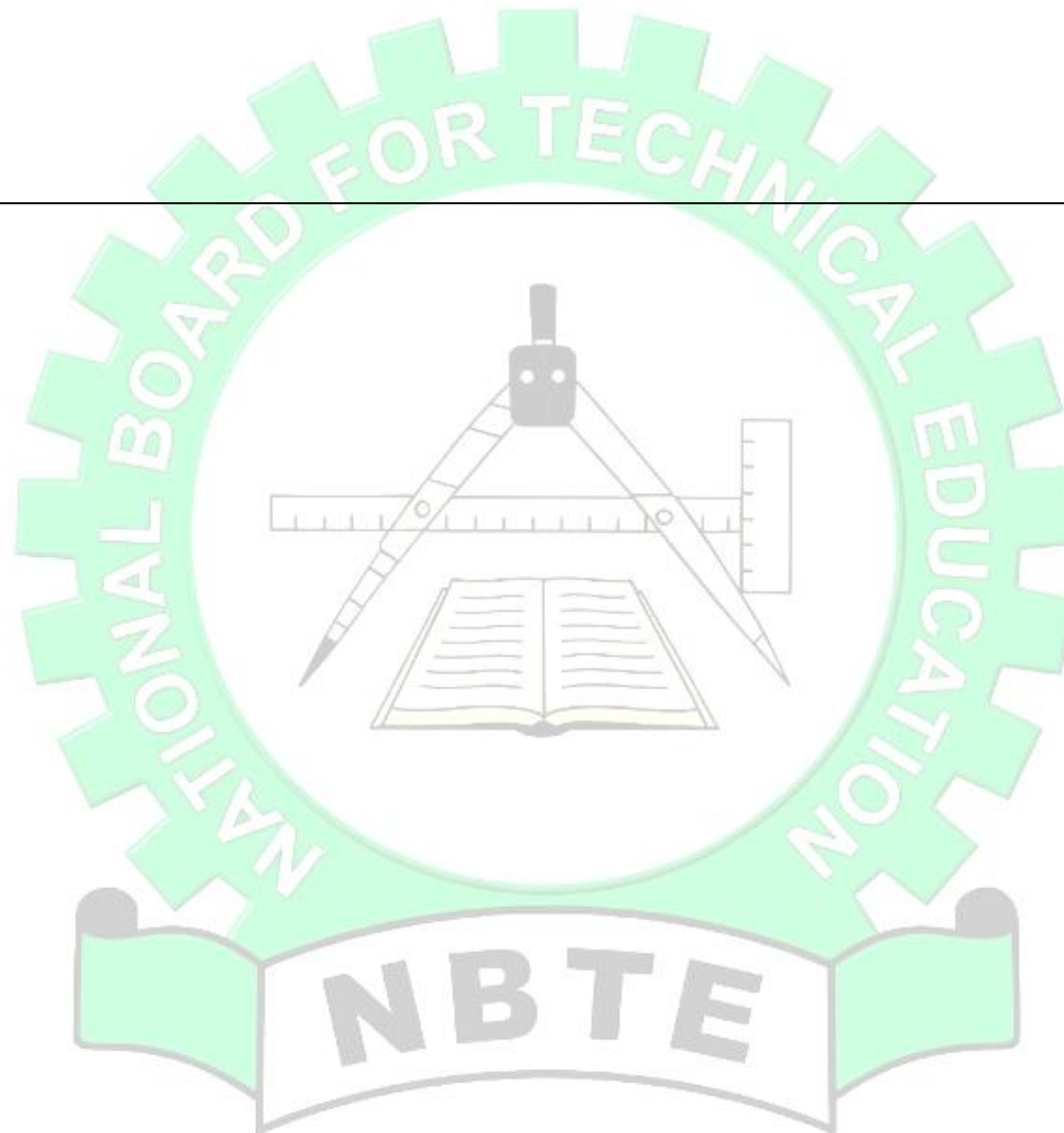
Course Work: 10%

Test/Assignments: 10%

Practical: 40%

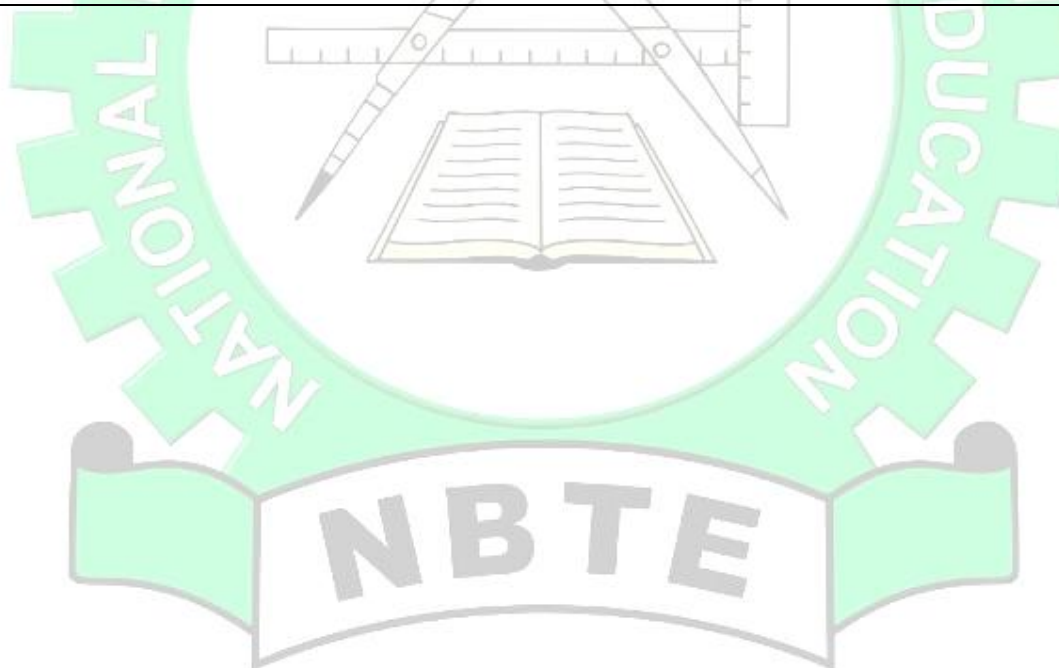
Examination: 40%

Total: 100%



ADVANCED ORNITHOLOGY

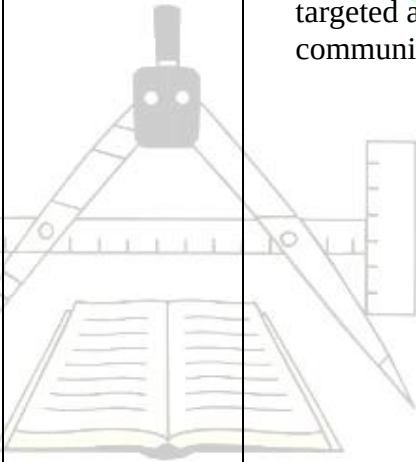
PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: ADVANCED ORNITHOLOGY	COURSE CODE: WEM 325	CONTACT HOURS: 4 HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: 1 SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to provide student with knowledge and skills in ornithology		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand advanced avian systematic, global taxonomies, and evolutionary history; 2.0 Comprehend the mechanics of avian flight and complex physiological adaptations; 3.0 Understand specialized avian field research techniques and population monitoring; 4.0 Understand avian behavioral ecology, vocalization, and migration dynamics; 5.0 Apply modern management and conservation frameworks to avian habitats and threatened species.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: ADVANCED ORNITHOLOGY			COURSE CODE: WEM 325		CONTACT HOURS: 4HOURS/WEEK	
			CREDIT UNIT: 4		THEORETICAL: 1HOURS/WEEK	
YEAR: I SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide student with knowledge and skills in ornithology						
GENERAL OBJECTIVE 1.0: Understand advanced avian systematic, global taxonomies, and evolutionary history.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Explain the concept of avian systematic, global taxonomies, and evolutionary history. 1.2 Explain the therapeutic and phylogenetic origins of birds from theropod dinosaurs. 1.3 Compare modern avian taxonomies and systematic classification systems.	• Discus concept of avian systematic, global taxonomies, and evolutionary history. • Explain the therapeutic and phylogenetic origins of birds from theropod dinosaurs. • Describe modern avian taxonomies and systematic classification systems.	Taxonomic keys, Computers with internet access, Whiteboard, markers, Fossil casts, Avian skeletons, Multimedia projector, etc.			
General Objective 2.0: Comprehend the mechanics of avian flight and complex physiological adaptations						
3-6	2.1 Explain mechanics	• Describe mechanics	Avian skeletons,	• Analyse the	Guide student to;	Fresh/preserved

	of avian flight. 2.2 Explain avian complex physiological adaptations. 2.3 Explain analysis of the aerodynamic principles governing different forms of avian flight. 2.4 Explain the anatomical and physiological efficiency of the respiratory and circulatory systems.	of avian flight - Explain avian complex physiological adaptations - Discuss analysis of the aerodynamic principles governing different forms of avian flight. - Explain the anatomical and physiological efficiency of the respiratory and circulatory systems.	Multimedia projector, Whiteboard, Marker, Slides, etc.	aerodynamic principles governing different forms of avian flight. Detail the anatomical and physiological efficiency of the respiratory and circulatory systems.	- Analyse the aerodynamic principles governing different forms of avian flight. - Detail the anatomical and physiological efficiency of the respiratory and circulatory systems.	bird carcasses, Digital weighing balances, Calipers, Dissection kits, Dissecting trays, Safety gloves, Hand lenses.
General Objective 3.0: Understand specialized avian field research techniques and population monitoring						
7-10	3.1 Explain avian field research techniques. 3.2 Explain avian population monitoring. 3.3 Explain design of standardized population monitoring protocols. 3.4 Explain application of safe capture,	- Discuss avian field research techniques. - Explain avian population monitoring - Explain design of standardized population monitoring protocols. - Explain application of safe capture, handling, and	Charts, Multimedia projector, Slides, Whiteboard, Marker, Maps, etc.	- Design standardized population monitoring protocols. - Apply safe capture, handling, and marking methods for field research. - Utilize digital tools and databases for citizen science mapping.	Guide student to; - Design standardized population monitoring protocols. - Apply safe capture, handling, and marking methods for field research. - Utilize digital	Binoculars, Rangefinders, Data sheets, Clipboards, GPS receivers, Mist nets, Poles, Bird ringing, pliers. Aluminum/cell uloid bands, Bird bags,

	handling, and marking methods for field research. 3.5 Explain utilization of digital tools and databases for citizen science mapping.	marking methods for field research. • Discuss utilization of digital tools and databases for citizen science mapping.			tools and databases for citizen science mapping.	Internet modems.
General Objective 4.0: Understand avian behavioral ecology, vocalization, and migration dynamics						
11 - 13	4.1 Explain avian behavioral ecology 4.2 Explain avian vocalization 4.3 Explain avian migration dynamics 4.4 Differentiate avian vocalizations and interpret acoustic structures. 4.5 Explain analysis of the mechanisms, energetics, and navigation vectors of avian migration 4.6 Explain avian mating systems and reproductive strategies.	• Explain avian behavioral ecology • Explain avian vocalization • Explain avian migration dynamics • Differentiate avian vocalizations and interpret acoustic structures • Explain analysis of the mechanisms, energetics, and navigation vectors of avian migration • Explain avian mating systems and reproductive strategies.	Charts Whiteboard, Marker, Multimedia projector, Maps, etc.	• Analyse the mechanisms, energetics, and navigation vectors of avian migration. • Evaluate avian mating systems and reproductive strategies.	Guide student to; • Analyse the mechanisms, energetics, and navigation vectors of avian migration. • Evaluate avian mating systems and reproductive strategies.	Digital audio recorders, Parabolic/directional microphones, Raven Lite software, Computers, GIS software, (QGIS/ArcGIS) satellite, Tracking sample files, Vernier calipers, Measuring tapes, Nest identification manuals.
General Objective 5.0: Apply modern management and conservation frameworks to avian habitats and threatened species.						
14-15	5.1 Explain avian habitats modern	• Explain avian habitats modern	Charts, Multimedia	• Assess anthropogenic threats impacting	Guide student to: • Assess	Threat logging templates,

	management and conservation frameworks. 5.2 Explain the concept of avian threatened species. 5.3 Explain assessment of anthropogenic threats impacting global and regional bird populations. 5.4 Explain implementation of international wildlife treaties and prioritization criteria. 5.5 Explain formulation of habitat restoration plans for targeted avian communities.	management and conservation frameworks • Discuss the concept of avian threatened species • Explain assessment of anthropogenic threats impacting global and regional bird populations. • Discuss implementation of international wildlife treaties and prioritization criteria. • Discuss formulation of habitat restoration plans for targeted avian communities.	projector, Whiteboard, Marker, Maps, etc. 	global and regional bird populations. • Implement international wildlife treaties and prioritization criteria. • Formulate habitat restoration plans for targeted avian communities.	anthropogenic threats impacting global and regional bird populations. • Implement international wildlife treaties and prioritization criteria. • Formulate habitat restoration plans for targeted avian communities.	Cameras, Hazard rating matrices, IUCN Red List manuals, Local threatened species documentation, Policy files, Timber boards, Hand saws, Hammers, Nails, Drills, PPE.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						

CONSERVATION FINANCE, GREEN ECONOMY AND CARBON MARKET

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT		
COURSE TITLE: CONSERVATION FINANCE, GREEN ECONOMY AND CARBON MARKET	COURSE CODE: WEM 326	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORY: 1 HOUR/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE: NIL	PRACTICAL: 2 HOURS/WEEK
GOAL: This course is designed to equip students with the knowledge and skills required to finance wildlife conservation, support green ecotourism, and explore carbon market opportunities for sustainable natural resource management		
GENERAL INSTRUCTIONAL OBJECTIVES: On completion of this course, students should be able to: 1.0 Understand the concept of conservation finance, green economy, and carbon market systems in wildlife ecotourism and management; 2.0 Know the major conservation finance instruments used in wildlife protection, ecotourism development and biodiversity conservation; 3.0 Appreciate the role of green economy in promoting sustainable tourism, wildlife conservation, community livelihoods, and environmental protection; 4.0 Know basic carbon market concepts in forest conservation, habitat restoration, agroforestry, renewable energy, and protected area management; 5.0 Know green investment opportunities in ecotourism enterprises, wildlife reserves, community conservancies, and nature-based tourism projects; 6.0 Understand simple conservation finance proposals for biodiversity protection, carbon-credit projects, ecotourism facilities, and community-based conservation initiatives; 7.0 Understand conservation finance and carbon market initiatives for sustainability, biodiversity impact, community benefit, financial viability, and ethical compliance.		

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: CONSERVATION FINANCE, GREEN ECONOMY AND CARBON MARKET			COURSE CODE: WEM 326		CONTACT HOURS: 3 HOURS/WEEK	
			CREDIT UNIT: 3		THEORY: 1 HOUR/WEEK	
YEAR: I SEMESTER: II			PRE-REQUISITE: NIL		PRACTICAL: 2 HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills required to finance wildlife conservation, support green ecotourism, and explore carbon market opportunities for sustainable natural resource management						
General Objective 1.0: Understand the concept of conservation finance, green economy, and carbon market systems in wildlife ecotourism and management						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher's Activities	Resources	Specific Learning Outcome	Teacher's Activities	Resources
1-2	1.1 Define conservation finance in wildlife ecotourism and management. 1.2 Explain the scope of green economy in natural resource management. 1.3 Describe carbon market systems and their relevance to conservation. 1.4 Identify key principles guiding conservation	• Introduce conservation finance using protected-area and ecotourism examples. • Illustrate green economy concepts with wildlife and tourism cases. • Explain carbon market systems using simple carbon-credit examples. • Guide students to identify principles of conservation finance and carbon markets.	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Identify conservation finance examples in protected-area settings. • Classify green economy and carbon market opportunities. • Map stakeholders involved in conservation finance systems. • Prepare a concept chart linking conservation, finance, and carbon markets. • Present a brief summary on conservation finance opportunities.	Guide students to; • Identify conservation finance examples from case materials. • Demonstrate classification of green economy and carbon market opportunities. • Supervise stakeholder mapping for conservation finance systems. • Provide templates for concept-chart preparation. • Moderate student	Templates, Checklists, Worksheets, Cards, Case lets, Reports, Profiles, Laptop, Projector.

	finance and carbon markets. 1.5 Explain the relationship among biodiversity conservation, green investment, and carbon finance.	• Lead discussion on links among biodiversity, green investment, and carbon finance.			presentations and provide feedback.	
General Objective 2.0: Know the major conservation finance instruments used in wildlife protection, ecotourism development and biodiversity conservation						
3-4	2.1 Identify major conservation finance instruments. 2.2 Describe grants, trust funds, user fees, and ecotourism levies. 2.3 Explain payment for ecosystem services and biodiversity offsets. 2.4 Describe carbon credits, green bonds, and public-private partnerships. 2.5 Compare conservation finance instruments	• Display examples of conservation finance instruments used in wildlife protection. • Explain grants, trust funds, user fees, and ecotourism levies. • Illustrate payment for ecosystem services and biodiversity offsets with case examples. • Discuss carbon credits, green bonds, and public-private partnerships. • Guide students to compare finance instruments for different conservation needs.	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Identify finance instruments from conservation case studies. • Prepare a conservation finance instrument matrix. • Match finance instruments with wildlife protection activities. • Select suitable instruments for ecotourism development cases. • Present a finance-instrument suitability summary.	Guide student to; • Provide conservation finance case studies for review. • Demonstrate preparation of a finance instrument matrix. • Match instruments with conservation activities. • Select instruments for ecotourism development cases. • Review summaries and correct unsuitable selections.	Caselets, Reports, Profiles, Policy briefs, Matrices, Templates, Checklists, Scorecards, Laptop, Projector.

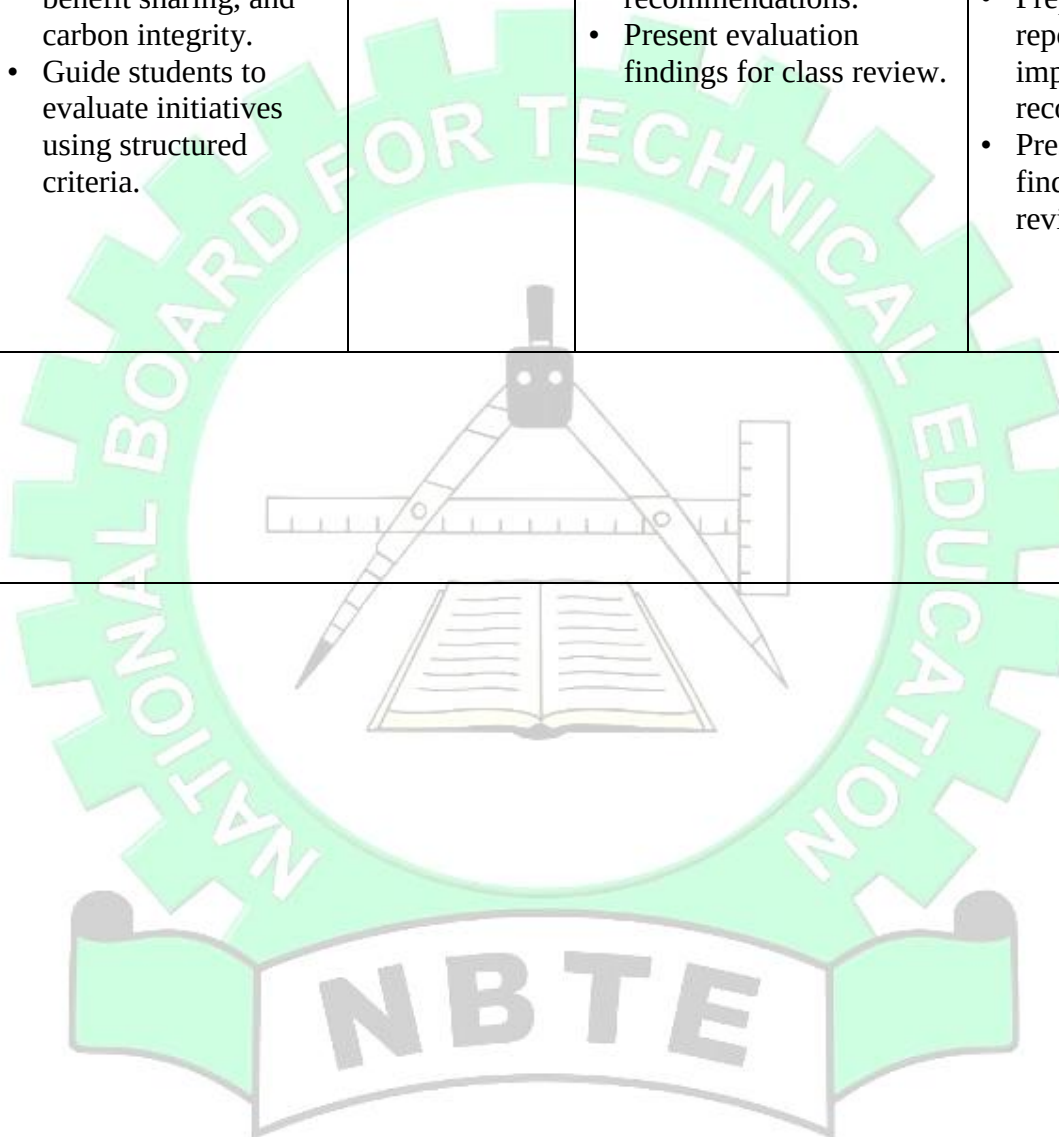
	according to purpose and suitability.					
General Objective 3.0: Appreciate the role of green economy in promoting sustainable tourism, wildlife conservation, community livelihoods, and environmental protection						
5-6	3.1 Explain the concept of green economy in wildlife ecotourism. 3.2 Describe green economy practices in sustainable tourism. 3.3 Explain the contribution of green economy to wildlife conservation. 3.4 Analyze the role of green economy in community livelihood improvement. 3.5 Assess the environmental benefits of green economy approaches.	• Explain green economy using ecotourism and conservation examples. • Illustrate sustainable tourism practices that support environmental protection. • Guide students to examine how green economy supports wildlife conservation. • Lead discussion on community livelihood benefits from green enterprises. • Use case examples to assess environmental benefits of green economy.	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Identify green economy practices in ecotourism sites. • Record community livelihood benefits from green tourism activities. • Prepare a green economy benefits chart. • Assess selected tourism practices for environmental protection. • Present findings on green economy contributions to conservation.	Guide students to; • Identify green economy practices from field or case examples. • Supervise recording of community livelihood benefits. • Demonstrate preparation of green economy benefits charts. • Provide checklists for environmental protection assessment. • Moderate presentations on green economy and conservation findings.	Clipboards, Checklists, Charts, Posters, Templates, Cards, Smartphones, Camera, Projector.
General Objective 4.0: Know basic carbon market concepts in forest conservation, habitat restoration, agroforestry, renewable energy, and protected area management						

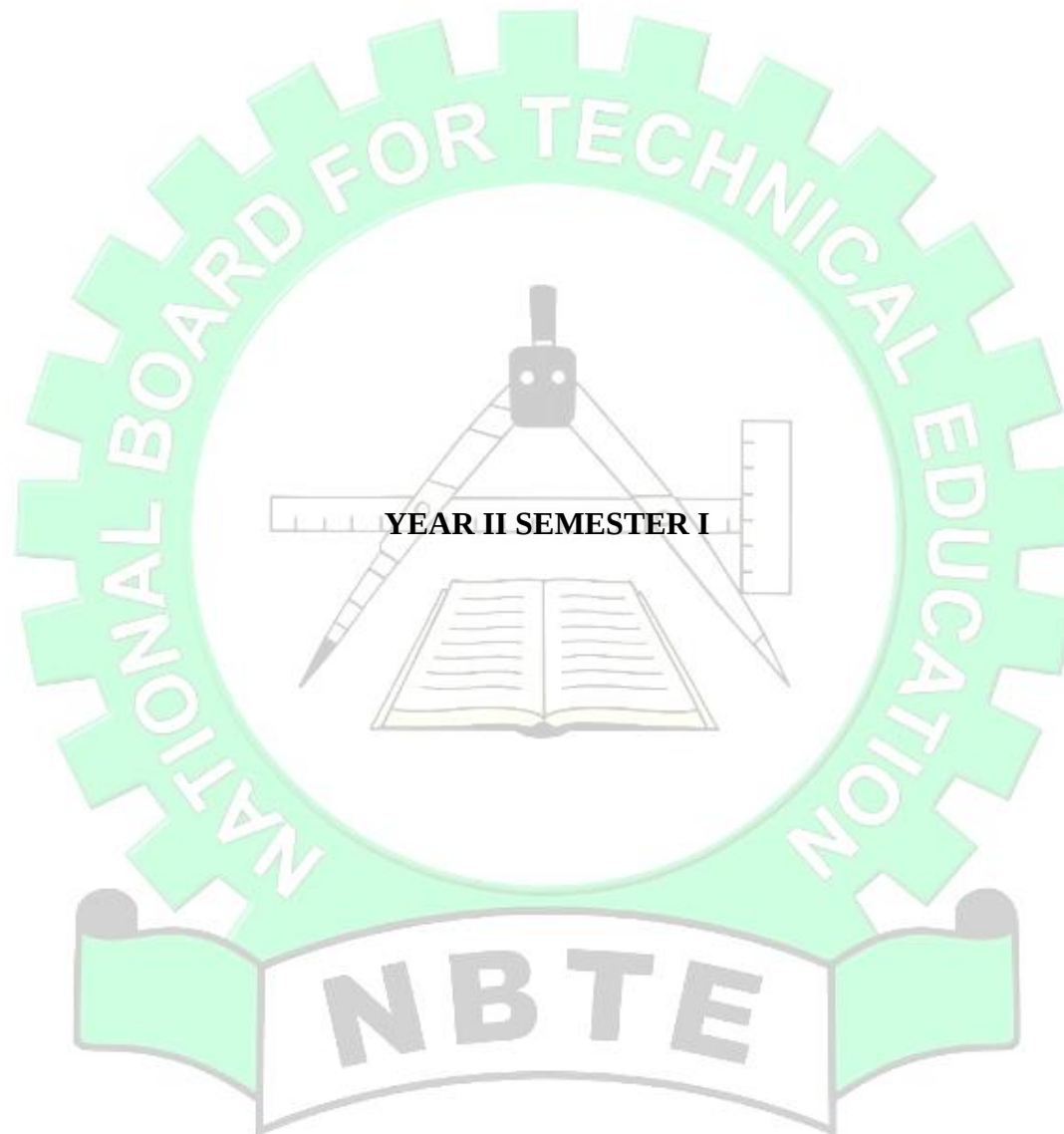
7-8	4.1 Define carbon credit, carbon offset, and carbon sequestration. 4.2 Explain carbon market concepts relevant to conservation projects. 4.3 Describe additionality, permanence, leakage, and verification. 4.4 Relate carbon market concepts to forests, habitats, and agroforestry. 4.5 Explain the role of renewable energy in reducing conservation-related emissions.	• Explain carbon credit, offset, and sequestration using simple examples. • Illustrate carbon market concepts with forest and habitat restoration cases. • Clarify additionality, permanence, leakage, and verification. • Guide students to relate carbon concepts to agroforestry and protected areas. • Discuss renewable energy as a carbon-reduction strategy in conservation operations.	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Identify possible carbon project activities in conservation areas. • List data required for a basic carbon-credit project. • Prepare a simple carbon project activity chain. • Use a worksheet to estimate basic carbon project benefits. • Present carbon market applications for protected area management.	Guide students to: • Identify carbon project activities from selected cases. • Demonstrate listing of data needed for carbon-credit planning. • Supervise preparation of carbon project activity chains. • Coach students on simple worksheet-based carbon benefit estimation. • Review presentations on carbon market applications.	Worksheets, Calculators, MRV forms, Checklists, Forest maps, Climate data, Activity sheets, Laptops, Spreadsheets, Projector.
General Objective 5.0: Know green investment opportunities in ecotourism enterprises, wildlife reserves, community conservancies, and nature-based tourism projects						
9-10	5.1 Identify green investment opportunities in wildlife ecotourism. 5.2 Explain investment	• Display examples of green investments in ecotourism and wildlife reserves. • Explain investment factors such as cost,	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts,	• Conduct a simple green investment opportunity scan. • Compare selected ecotourism and conservancy investment	Guide student to; • Conduct a simple green investment opportunity scan. • Compare selected ecotourism and	Templates, SWOT sheets, Checklists, Scorecards, Calculators, Cost sheets,

	factors affecting ecotourism enterprises. 5.3 Analyze risks and benefits of investing in wildlife reserves. 5.4 Describe green investment opportunities in community conservancies. 5.5 Assess nature-based tourism projects for financial and environmental value.	market demand, risk, and returns. • Guide students to analyze risks and benefits of wildlife reserve investments. • Discuss community conservancies as green investment platforms. • Lead appraisal of nature-based tourism projects using simple criteria.	Flowcharts, Posters, Laptop, Projector, Internet, etc.	options. • Prepare a basic SWOT analysis for a nature-based project. • Estimate simple costs and benefits for a green enterprise idea. • Prepare a green investment profile for class review.	conservancy investment options. • Prepare a basic SWOT analysis for a nature-based project. • Estimate simple costs and benefits for a green enterprise idea. • Prepare a green investment profile for class review.	Budget forms, Laptop, Spreadsheet, Projector.
General Objective 6.0: Understand simple conservation finance proposals for biodiversity protection, carbon-credit projects, ecotourism facilities, and community-based conservation initiatives						
11-13	6.1 Describe the components of a conservation finance proposal. 6.2 Explain proposal objectives, activities, budgets, and expected outputs. 6.3 Describe indicators for biodiversity	• Explain components of conservation finance proposals using samples. • Illustrate proposal objectives, activities, budgets, and expected outputs. • Guide students to identify biodiversity and community benefit	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Draft a simple conservation finance proposal. • Prepare a basic budget for a conservation project. • Develop indicators for biodiversity and community benefits. • Include carbon-credit or ecotourism components in a proposal.	Guide students to: • Draft a simple conservation finance proposal. • Prepare a basic budget for a conservation project. • Develop indicators for biodiversity and community benefits. • Include carbon-credit	Templates, Logframes, Budgets, Indicators, Laptops, Checklists, Internet, Projector, Spreadsheet.

	protection and community benefits. 6.4 Explain carbon-credit and ecotourism components in project proposals. 6.5 Assess proposal quality using relevance, feasibility, and sustainability criteria.	indicators. • Discuss carbon-credit and ecotourism facility proposal components. • Lead review of proposal quality using relevance and feasibility criteria.		• Present the proposal for peer and teacher review. • Revise the proposal using feedback.	or ecotourism components in a proposal. • Present the proposal for peer and teacher review. • Revise the proposal using feedback.	
General Objective 7.0: Understand conservation finance and carbon market initiatives for sustainability, biodiversity impact, community benefit, financial viability, and ethical compliance						
14-15	7.1 Identify evaluation criteria for conservation finance initiatives. 7.2 Explain sustainability, biodiversity impact, and community benefit indicators. 7.3 Describe financial viability measures for conservation projects. 7.4 Explain ethical	• Explain evaluation criteria for conservation finance and carbon market initiatives. • Illustrate sustainability, biodiversity impact, and community benefit indicators. • Discuss financial viability measures for green economy projects. • Clarify ethical issues such as transparency,	Textbooks, Handouts, Slides, Manuals, Finance charts, Carbon charts, Flowcharts, Posters, Laptop, Projector, Internet, etc.	• Analyse a sample conservation finance project using a scorecard. • Assess biodiversity impact and community benefits of selected initiatives. • Check financial viability using simple project information. • Identify ethical compliance issues in a carbon market case. • Prepare an evaluation report with improvement	Guide students to: • Analyse a sample conservation finance project using a scorecard. • Assess biodiversity impact and community benefits of selected initiatives. • Check financial viability using simple project information. • Identify ethical compliance issues in a carbon market case.	Scorecards, Checklists, Indicators, Rubrics, Caselets, Reports, Profiles, Budgets, Laptop, Spreadsheet, Projector.

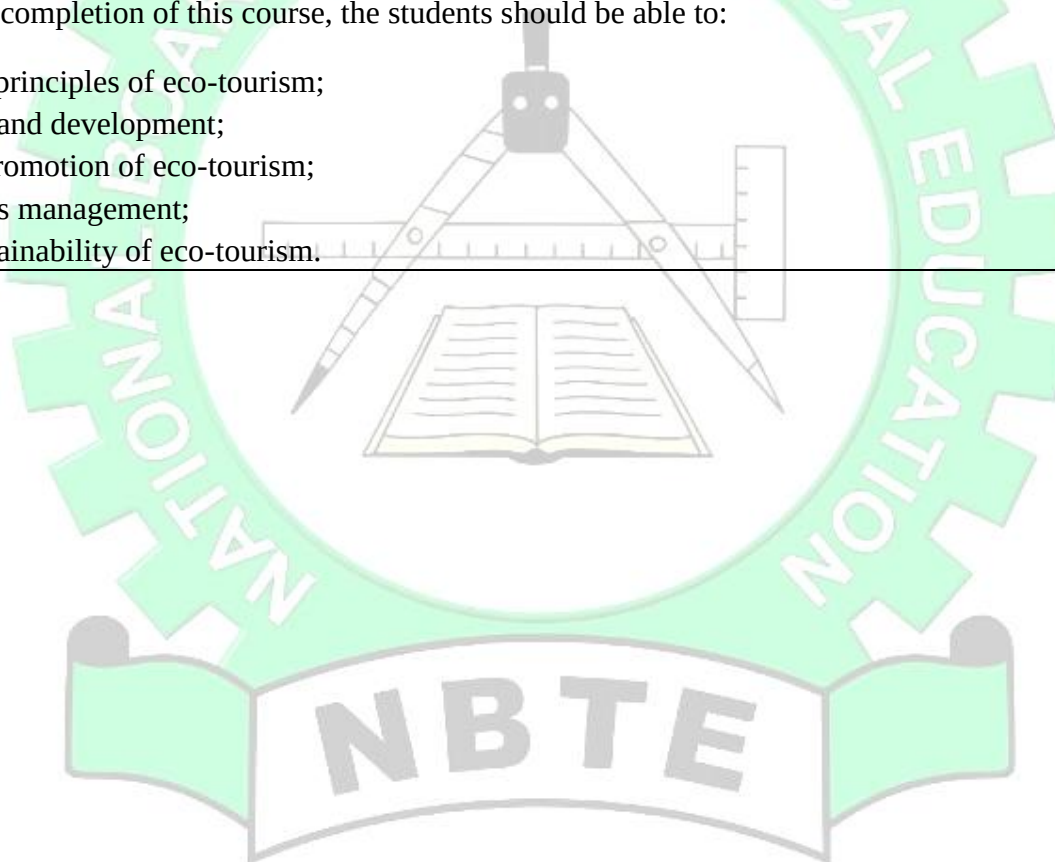
	compliance issues in carbon market and conservation finance. 7.5 Evaluate selected initiatives using conservation and finance criteria.	benefit sharing, and carbon integrity. • Guide students to evaluate initiatives using structured criteria.		recommendations. • Present evaluation findings for class review.	• Prepare an evaluation report with improvement recommendations. • Present evaluation findings for class review.	
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical: 40% Examination: 40% Total: 100%						





ECO-TOURISM MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT ANAGEMENT		
COURSE TITLE: ECO-TOURISM MANAGEMENT	COURSE CODE: : WEM 411	CONTACT HOURS: 4HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills in eco-tourism management. WILDLIFE AND ECO-TOURISM MANAGEMENT		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the concept and principles of eco-tourism; 2.0 Know eco-tourism planning and development; 3.0 Understand marketing and promotion of eco-tourism; 4.0 Know eco-tourism operations management; 5.0 Understand impacts and sustainability of eco-tourism.		



PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE AND ECOTOURISM MANAGEMENT						
COURSE TITLE: ECO-TOURISM MANAGEMENT			COURSE CODE: : WEM 411		CONTACT HOURS: 4HOURS/WEEK	
			CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in eco-tourism management.						
GENERAL OBJECTIVE 1.0: Understand the concept and principles of eco-tourism						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific learning outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Define eco-tourism and distinguish it from mass tourism. 1.2 Describe the principles and characteristics of eco-tourism. 1.3 Explain the historical development of eco-tourism. 1.4 Describe the global and Nigerian eco-tourism industry.	• Discuss eco-tourism and distinguish it from mass tourism • Discuss the principles and characteristics of eco-tourism • Discuss the historical development of eco-tourism • Discuss the global and Nigerian eco-tourism industry	Eco-tourism statistics, Documentary films, Teaching tools, Whiteboard, Marker, etc.	• Research on a Nigerian eco-tourism destination	• Guide students to research and present on a Nigerian eco-tourism destination	Library resources, Internet access, Presentation materials.
General Objective 2.0: Know eco-tourism planning and development						
3-5	2.1 Describe the eco-tourism planning process. 2.1 Explain visitor carrying	• Discuss the eco-tourism planning process.	Planning documents, Carrying	• Calculate visitor carrying capacity for a site.	Guide students to: • Calculate visitor	Site data. Calculation tools,

	capacity and its management. 2.2 Describe infrastructure development for eco-tourism. 2.3 Explain community participation in eco-tourism development.	• Discuss visitor carrying capacity and its management. • Discuss infrastructure development for eco-tourism. • Discuss community participation in eco-tourism development.	capacity guides, Teaching tools, Whiteboard, Marker, etc.	• Design a community participation plan.	carrying capacity for a site. • Design a community participation plan.	Planning templates.
General Objective 3.0: Understand marketing and promotion of eco-tourism						
6-8	3.1 Explain the eco-tourism market and tourist profiles. 3.2 Explain marketing strategies for eco-tourism. 3.3 Explain branding and promotion of eco-tourism destinations. 3.4 Explain the role of digital media in eco-tourism marketing.	• Discuss the eco-tourism market and tourist profiles. • Discuss marketing strategies for eco-tourism. • Discuss branding and promotion of eco-tourism destinations. • Discuss the role of digital media in eco-tourism marketing.	Marketing case studies, Digital media examples, Teaching tools, etc.	• Design a brochure for an eco-tourism site. • Create a social media post for an eco-tourism destination.	Guide students to: • Design a brochure for an eco-tourism site. • Create a social media post for an eco-tourism destination.	Design materials, Computers, Internet.
General Objective 4.0: Know eco-tourism operations management						
9-11	4.1 Describe eco-tourism product design. 4.2 Explain visitor management techniques. 4.3 Describe guiding and	• Discuss eco-tourism product design. • Discuss visitor management techniques. • Discuss guiding and	Product design templates, Interpretation guides,	• Conduct a mock guided tour with interpretation. • Develop a safety protocol for an eco-	Guide students to: • Conduct a mock guided tour with interpretation. • Develop a safety	Tour guides, Safety materials, Eco-tourism.

	interpretation services. 4.4 Explain quality management in eco-tourism operations. 4.5 Describe health and safety management for eco-tourists.	interpretation services. • Discuss quality management in eco-tourism operations. • Discuss health and safety management for eco-tourists.	Safety protocols, Whiteboard, Marker, etc.	tourism activity.	protocol for an eco-tourism activity.	
General Objective 5.0: Understand impacts and sustainability of eco-tourism						
12-15	5.1 Describe positive and negative impacts of eco-tourism. 5.2 Explain environmental impact assessment for eco-tourism. 5.3 Describe indicators of sustainable eco-tourism. 5.4 Explain certification schemes for eco-tourism sustainability.	• Discuss positive and negative impacts of eco-tourism. • Discuss environmental impact assessment for eco-tourism. • Discuss indicators of sustainable eco-tourism. • Discuss certification schemes for eco-tourism sustainability.	Impact assessment documents. Certification scheme guides, Whiteboard, Marker, Teaching tools, etc.	• Assess impacts of eco-tourism at a visited site. • Conduct a mini EIA for an eco-tourism project.	Guide students to: • Assess impacts of eco-tourism at a visited site. • Conduct a mini EIA for an eco-tourism project.	Impact assessment forms, Eco-tourism sites.
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical: 40% Examination: 40% Total: 100%						

PARK PLANNING, DEVELOPMENT AND MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: PARK PLANNING, DEVELOPMENT AND MANAGEMENT	COURSE CODE: WEM 412	CONTACT HOURS: 4 HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: I SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with the knowledge and skills in national park planning, design, infrastructure development and management for effective conservation and ecotourism delivery.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand protected area systems and park governance frameworks in Nigeria; 2.0 Understand Park Development Procedure; 3.0 Known Park zoning, boundary demarcation and land use planning; 4.0 Know Park Management Planning on departmental Management; 5.0 Apply Park management planning and adaptive management; 6.0 Understand visitor management and interpretation planning in parks.		

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: PARK PLANNING,DEVELOPMENT AND MANAGEMENT			COURSE CODE: WEM 412		CONTACT HOURS:4 HOURS/WEEK	
			CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: To equip students with the knowledge and practical skills in national park planning, design, infrastructure development and management for effective conservation and ecotourism delivery.						
GENERAL OBJECTIVE 1.0: Understand protected area systems and park governance frameworks in Nigeria;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain the type of parks in Nigeria. 1.2 Explain the park planning process. 1.3 Explain stakeholder identification and participation in park planning. 1.4 Explain International Union for Conservation of Natural Resources 1.5 (IUCN) protected area categories and how Nigerian parks, reserves and sanctuaries are classified. 1.6 Explain the legal and	- Discuss Park types and planning process. - Discuss stakeholder identification and participation in park planning. - Discuss IUCN protected area categories with Nigerian park, reserve and sanctuary examples for each. - Explain Nigerian legal and institutional framework with NPPCA, state department and community conservancy mandate	IUCN protected area categories guide, Nigerian protected area legal framework, Nigerian national parks and game reserves map, Decentralized governance guide, International biodiversity frameworks guide,	- Map all Nigerian national parks and game reserves; record name, state, area, ecosystem type, flagship species and IUCN category for each - Research the governance structure of one Nigerian national park; record managing institution, governing legislation, community involvement mechanism and one governance challenge - Compare IUCN category II and category VI protected	Guide students to: - Map all Nigerian national parks and game reserves; record name, state, area, ecosystem type, flagship species and IUCN category for each - Research the governance structure of one Nigerian national park; record managing institution, governing legislation, community	Nigerian national parks and game reserves map and data, IUCN protected area categories guide, protected area governance research guide, International biodiversity framework guide, Projector, PPE, Field notebooks.

	institutional framework for protected areas management in Nigeria: NPPCA, state forestry and wildlife departments and community conservancies. 1.7 Explain the major national parks and game reserves in Nigeria: locations, ecosystems, flagship species and management challenges. 1.8 Explain how decentralized and community-based governance models are being applied in Nigerian protected area management. 1.9 Explain International frameworks influencing Nigerian protected area governance: CBD, Ramsar, CITES and the Kunming-Montreal Global	examples. • Describe major Nigerian national parks with location, ecosystem, flagship species and challenge data. • Explain decentralized and community governance models with Nigerian protected area example. • Explain international frameworks with Nigerian protected area governance implication examples.	Projector, etc.	areas using two Nigerian examples; record management objectives, allowed activities, community role and conservation effectiveness • Identify two international frameworks that apply to one Nigerian wetland or forest protected area • Record framework, provisions applicable, Nigeria's obligations and one compliance gap • Present the Nigerian protected area system map to the class • Identify two governance strengths and two governance gaps requiring improvement	involvement mechanism and one governance challenge • Compare IUCN category II and category VI protected areas using two Nigerian examples; record management objectives, allowed activities, community role and conservation effectiveness • Identify two international frameworks that apply to one Nigerian wetland or forest protected area; record framework, provisions applicable, Nigeria's obligations and one compliance gap • Present the Nigerian protected area system map to	
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	Biodiversity Framework				the class; explain two governance strengths and two governance gaps requiring improvement	
General Objective 2.0: Understand Park Development Procedure;						
4-6	2.1 Explain site assessment and selection for park development. 2.2 Explain the procedure for establishing a new park. 2.3 Explain the role of environment impact assessment in park development. 2.4 Explain funding mechanism for park development.	• Explain site assessment and selection for park development. • Discuss the procedure for establishing a new park • Discuss the role of environment impact assessment in park development. • Discuss funding mechanism for park development.	Wildlife monitoring tools, Teaching tool, Computer, Whiteboard, Marker, etc.	• Conduct a stakeholders' meetings. • Review a place of park legislation. • Conduct a visit to proposed site for establishing the park.	Guide students to: • Conduct a stakeholders' meetings. • Review a place of park legislation. • Conduct a visit to proposed site for establishing the park	Drones, GPS, Cameras, Wildlife monitoring tools, Park documents, Teaching tool, Computer.
General Objective 3.0: Known Park zoning, boundary demarcation and land use planning						
7-8	3.1 Explain Park zoning principles: core zones, buffer zones, transition zones and multiple-use zones and their management 3.2 Explain how to design a park and zoning plan: criteria for zone	• Discuss Park zoning principles: core zones, buffer zones, transition zones and multiple-use zones and their management • Discuss how to design a park and zoning plan: criteria	Park zoning principles guide, Park zoning plan design guide, Boundary demarcation methods guide,	• Design a zoning plan for a hypothetical 500 km² national park; sketch zone layout, record zone type, size, permitted activities and management objectives for each zone. • Conduct a GPS	Guide students to: • Design a zoning plan for a hypothetical 500 km² national park; sketch zone layout, record zone type, size, permitted activities and	Park zoning design guide, GPS devices, Park boundary mapping software or sketch materials, Human-wildlife

	designation, boundary setting and land use regulations. 3.3 Explain boundary demarcation methods: physical beacons, GPS boundary surveys and GIS boundary mapping. 3.4 Explain how to manage human-wildlife conflict at park boundaries. 3.5 Discuss buffer zone management, deterrent measures and community compensation. 3.6 Explain how to develop a park management plan integrating conservation, ecotourism, community use and research zones	for zone designation, boundary setting and land use regulations. • Discuss boundary demarcation methods: physical beacons, GPS boundary surveys and GIS boundary mapping. • Discuss how to manage human-wildlife conflict at park boundaries. • Discuss buffer zone management, deterrent measures and community compensation. • Discuss how to develop a park management plan integrating conservation, ecotourism, community use and research zones	Human-wildlife conflict management guide, Park land use plan template, Projector, GPS, Park management plan, etc.	boundary survey of one local conservation area or college grounds • Record waypoints, calculate perimeter and produce a simple boundary map. • Identify three human-wildlife conflict hotspots at one Nigerian park boundary • Record species involved, conflict type, frequency, community impact and one deterrent measure recommended. • Prepare a park land use plan for one local conservation area • Record each land use zone, location, size, permitted uses, restricted activities and management rules. • Present the zoning plan and land use plan to the class; explain zone rationale, boundary management challenges and two human-wildlife conflict solutions.	management objectives for each zone. • Conduct a GPS boundary survey of one local conservation area or college grounds; record waypoints, calculate perimeter and produce a simple boundary map. • Identify three human-wildlife conflict hotspots at one Nigerian park boundary; record species involved, conflict type, frequency, community impact and one deterrent measure recommended. • Prepare a park land use plan for one local conservation area; record each land use zone, location,	conflict guide, Park land use plan template, Projector, Smartphones, PPE, Field notebooks.
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					size, permitted uses, restricted activities and management rules. • Present the zoning plan and land use plan to the class; explain zone rationale, boundary management challenges and two human-wildlife conflict solutions.	
General Objective 4.0: Know Park management planning and adaptive management						
10-11	4.1 Explain the components of a park management plan: situation analysis, vision, objectives, management strategies, work programme and budget 4.2 Explain how to conduct a protected area management effectiveness evaluation using the METT or RAPPAM framework	• Discuss the components of a park management plan: situation analysis, vision, objectives, management strategies, work programme and budget. • Explain how to conduct a protected area management effectiveness evaluation using the METT or RAPPAM framework.	Park management plan template, METT or RAPPAM evaluation framework, Adaptive management guide, Park operational work plan template, Multi-stakeholder	• Prepare the situation analysis section of a park management plan for one Nigerian protected area; record biophysical, socioeconomic, governance and threat information • Apply the METT framework to assess the management effectiveness of one local or Nigerian national park • Record scores for all	Guide students to: • Prepare the situation analysis section of a park management plan for one Nigerian protected area; record biophysical, socioeconomic, governance and threat information. • Apply the METT framework to assess the management effectiveness of	Park management plan template, METT evaluation framework, Adaptive management cycle template, Park operational work plan template, Multi-stakeholder partnership

	4.3 Describe adaptive management in park management and management cycles, learning from monitoring and strategy adjustment 4.4 Explain how to develop a park operational work plan with activity schedules, staff assignments and performance targets 4.5 Describe how to build multi-stakeholder partnerships for park management: government, communities, NGOs and private sector	• Discuss adaptive management in park management and management cycles, learning from monitoring and strategy adjustment. • Discuss how to develop a park operational work plan with activity schedules, staff assignments and performance targets. • Discuss how to build multi-stakeholder partnerships for park management: government, communities, NGOs and private sector.	partnership guide, Projector, etc.	elements, calculate overall score and identify three priority gaps • Develop an adaptive management cycle for one park management challenge • Record ,management question, current practice, monitoring method, learning mechanism and strategy adjustment trigger. • Prepare a one-year operational work plan for one park management unit • Record activities, responsible staff, timeline, resources and performance targets for each quarter • Design a multi-stakeholder partnership structure for one Nigerian park; record partner, role, contribution,	one local or Nigerian national park; record scores for all elements, calculate overall score and identify three priority gaps. • Develop an adaptive management cycle for one park management challenge; record management question, current practice, monitoring method, learning mechanism and strategy adjustment trigger. • Prepare a one-year operational work plan for one park management unit; record activities, responsible staff, timeline, resources and performance targets for each quarter. • Design a multi-	design guide, Projector, PPE, Field notebooks.
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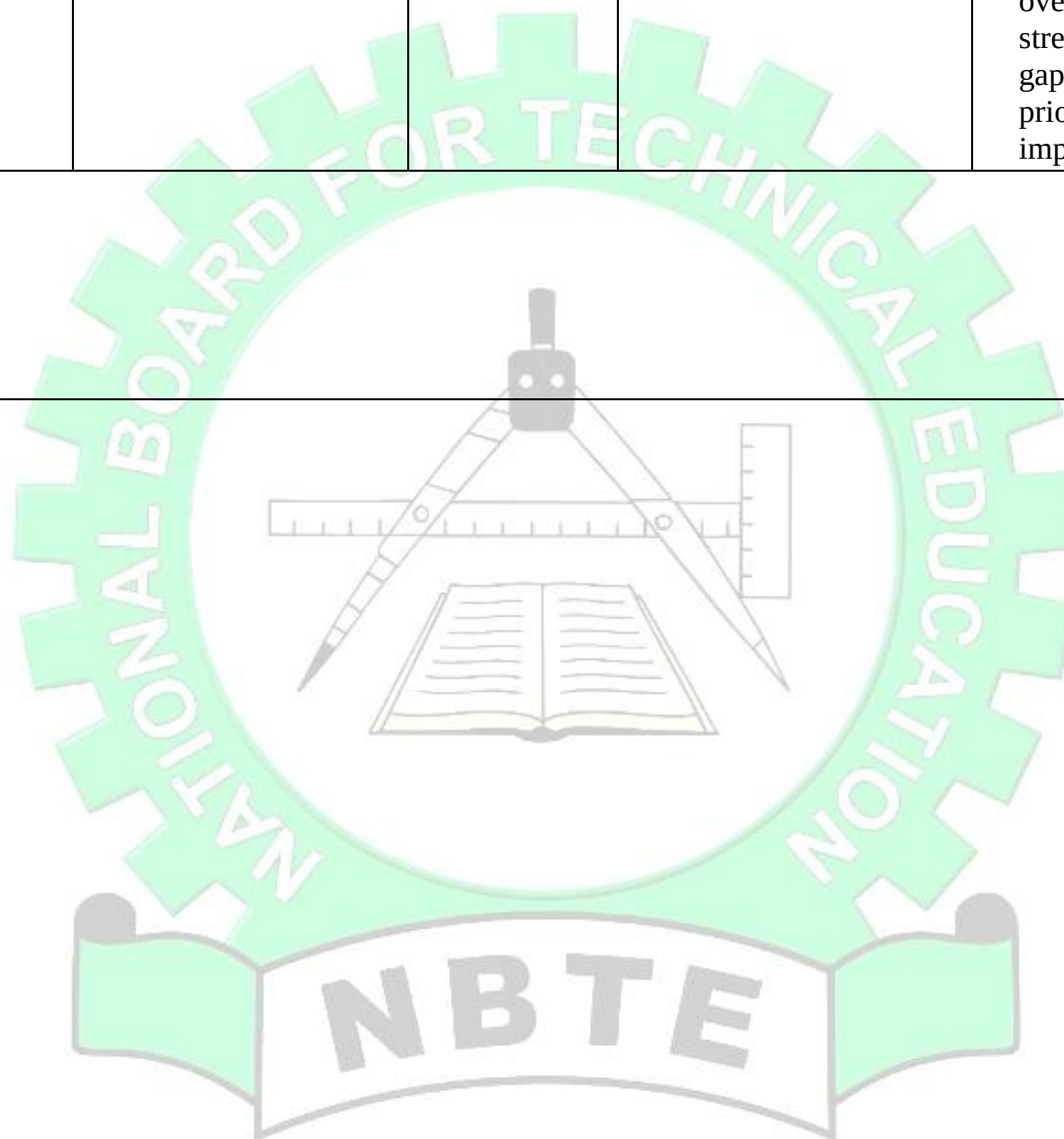
				governance mechanism and expected partnership outcome	stakeholder partnership structure for one Nigerian park; record partner, role, contribution, governance mechanism and expected partnership outcome.	
General Objective 5.0: Understand visitor management and interpretation planning in parks;						
12-13	5.1 Explain visitor management principles: carrying capacity, visitor impact management, Limits of Acceptable Change and visitor experience quality 5.2 Discuss how to assess and manage visitor impacts on wildlife and habitats in national parks and ecotourism sites 5.3 Describe how to design visitor experience programmes: guided game drives, bird	• Explain visitor management principles: carrying capacity, visitor impact management, Limits of Acceptable Change and visitor experience quality. • Discuss how to assess and manage visitor impacts on wildlife and habitats in national parks and ecotourism sites. • Explain how to design visitor experience programmes: guided game drives, bird	Visitor management principles guide, Visitor impact assessment tool, Visitor experience programme design guide, Interpretation planning guide, Visitor management and interpretation plan template, Projector, etc.	• Assess visitor impacts at one local conservation or ecotourism site • Record visitor activities, physical impacts observed, wildlife disturbance evidence and two impact reduction recommendations. • Design a two-hour guided bird watching tour for one local wildlife area • Record route, species to be highlighted, interpretation stops, key messages and safety	Guide students to: • Assess visitor impacts at one local conservation or ecotourism site; record visitor activities, physical impacts observed, wildlife disturbance evidence and two impact reduction recommendations. • Design a two-hour guided bird watching tour for one local wildlife area; record route, species to be	Visitor impact assessment tool, bird watching tour design guide, interpretation trail design guide, carrying capacity assessment worksheet, visitor management and interpretation plan template, projector, PPE, smartphones, field notebooks.

	watching, walking safaris and cultural heritage tours 5.4 Explain interpretation planning principles: thematic interpretation, Freeman Tilden's principles and effective nature communication for different audiences 5.5 Explain how to develop a visitor management and interpretation plan for one ecotourism site	watching, walking safaris and cultural heritage tours. • Discuss interpretation planning principles: thematic interpretation, Freeman Tilden's principles and effective nature communication for different audiences. • Discuss how to develop a visitor management and interpretation plan for one ecotourism site.		briefing. • Design a visitor interpretation trail with four stations for one local nature area • Record each station location, theme, key message, interpretation method and supporting materials. • Assess the carrying capacity of one ecotourism site for visitor use • Record site area, wildlife sensitivity, current visitor numbers, impacts and recommended maximum daily visitor number. • Develop a visitor management and interpretation plan for one ecotourism site • Record visitor experience objectives, activity schedule, interpretation themes, impact monitoring and staff roles.	highlighted, interpretation stops, key messages and safety briefing. • Design a visitor interpretation trail with four stations for one local nature area; record each station location, theme, key message, interpretation method and supporting materials. • Assess the carrying capacity of one ecotourism site for visitor use; record site area, wildlife sensitivity, current visitor numbers, impacts and recommended maximum daily visitor number. • Develop a visitor management and interpretation plan	
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					for one ecotourism site; record visitor experience objectives, activity schedule, interpretation themes, impact monitoring and staff roles	
General Objective 6.0: Know Park monitoring, evaluation and management effectiveness assessment;						
14 – 15	6.1 Explain Park monitoring frameworks: ecological monitoring, socioeconomic monitoring, threat monitoring and governance monitoring. 6.2 Explain how to design an integrated park monitoring programme with indicators, methods, frequency and data management. 6.3 Describe how to use patrol data, camera trap records and community reports for ranger-based	- Explain Park monitoring frameworks: ecological monitoring, socioeconomic monitoring, threat monitoring and governance monitoring. - Discuss how to design an integrated park monitoring programme with indicators, methods, frequency and data management. - Discuss how to use patrol data, camera trap records and community reports	Park monitoring framework guide, Integrated monitoring programme design Template, SMART patrol and ranger-based monitoring guide, Park monitoring data analysis guide, Park management effectiveness	- Design an integrated park monitoring programme for one local or Nigerian protected area - Record ecological, threat, governance and socioeconomic indicators with methods, frequency and responsible staff. - Analyse provided SMART patrol data for one protected area - Record patrol coverage, threat incidents, species detections and two management responses recommended - Interpret camera trap	Guide students to: - Design an integrated park monitoring programme for one local or Nigerian protected area; record ecological, threat, governance and socioeconomic indicators with methods, frequency and responsible staff. - Analyse provided SMART patrol data for one protected area; record patrol coverage, threat	Park monitoring programme design template, SMART patrol dataset, Camera trap data for analysis, Park monitoring summary report Template, METT framework, Projector, PPE, Field notebooks.

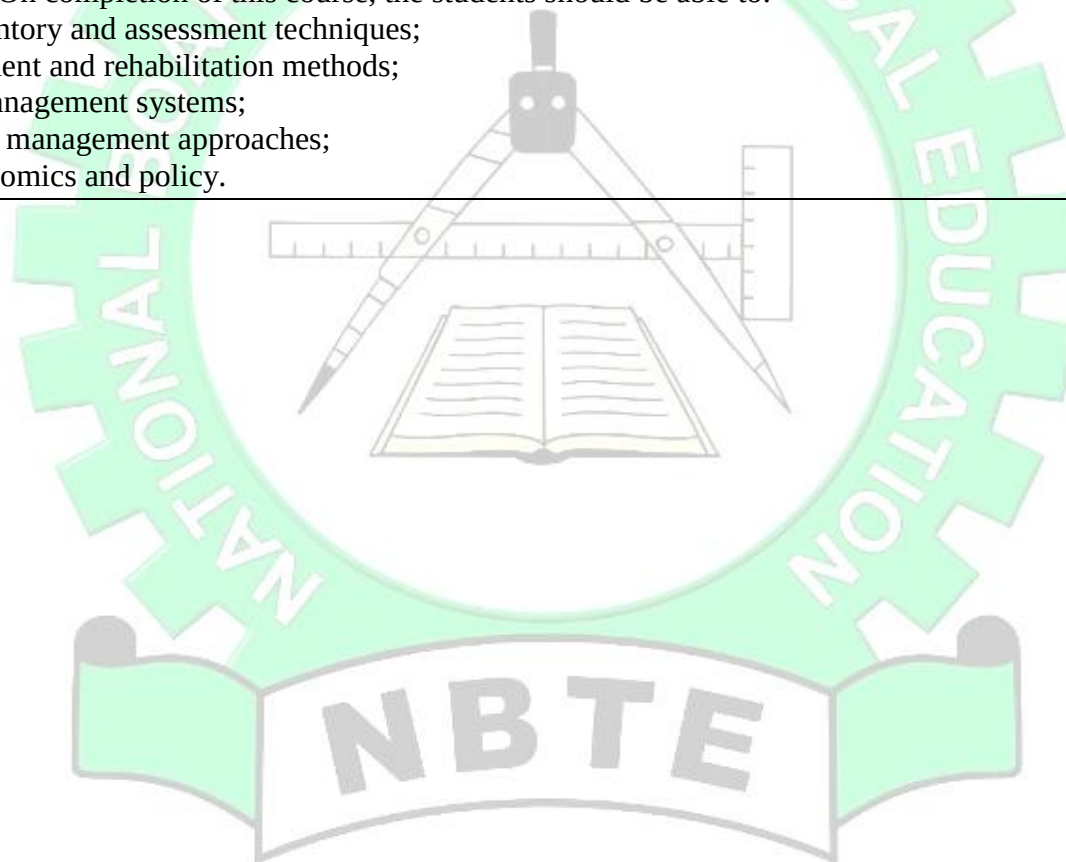
	monitoring in Nigerian parks. 6.4 Explain how to analyse and interpret park monitoring data to assess trends and trigger management responses. 6.5 Describe how to prepare a park management effectiveness report for park managers, government and international conservation bodies.	for ranger-based monitoring in Nigerian parks. • Discuss how to analyse and interpret park monitoring data to assess trends and trigger management responses. • Discuss how to prepare a park management effectiveness report for park managers, government and international conservation bodies.	report template, projector, etc.	data from one protected area • Record species detected, relative abundance index, temporal activity patterns and one conservation implication. • Prepare a park monitoring summary report for one quarter • Record indicator measurements, trends, key threats detected and three management actions taken in response. • Assess the management effectiveness of one Nigerian national park using METT • Record overall score, strengths, critical gaps and a prioritized improvement plan.	incidents, species detections and two management responses recommended. • Interpret camera trap data from one protected area; record species detected, relative abundance index, temporal activity patterns and one conservation implication. • Prepare a park monitoring summary report for one quarter; record indicator measurements, trends, key threats detected and three management actions taken in response. • Assess the management effectiveness of one Nigerian national park using METT; record	
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					overall score, strengths, critical gaps and a prioritized improvement plan.	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						



RANGE MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: RANGE MANAGEMENT	COURSE CODE: WEM 413	CONTACT HOURS: 3HOUR/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 2HOUR/WEEK
GOAL: This course is designed to equip students with knowledge and skills in range management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand range inventory and assessment techniques; 2.0 Know range improvement and rehabilitation methods; 3.0 Understand grazing management systems; 4.0 Know integrated range management approaches; 5.0 Understand range economics and policy.		

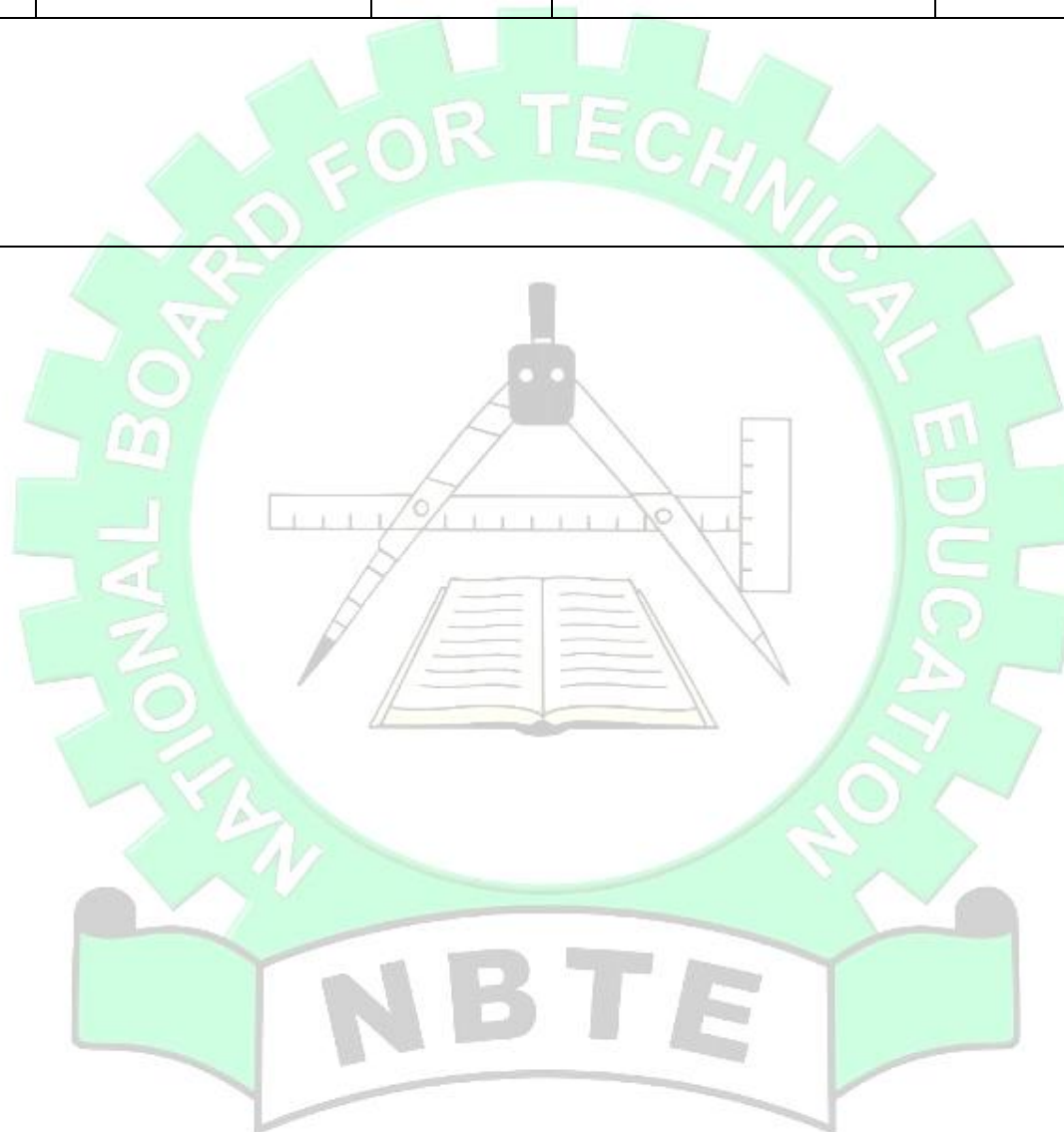


PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: RANGE MANAGEMENT		COURSE CODE: WEM 413			CONTACT HOURS: 3HOUR/WEEK	
		CREDIT UNIT: 3			THEORETICAL: 1HOUR/WEEK	
YEAR: II SEMESTER: I		PRE-REQUISITE:			PRACTICAL: 2HOUR/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in range management.						
GENERAL OBJECTIVE 1.0:						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain range inventory techniques. 1.2 Explain vegetation mapping and classification methods. 1.3 Explain range condition assessment procedures. 1.4 Explain the use of remote sensing in range assessment.	• Discuss range inventory techniques. • Discuss vegetation mapping and classification methods. • Discuss range condition assessment procedures. • Discuss the use of remote sensing in range assessment	Vegetation maps, Remote sensing images, Measuring tape, Quadrats, GPS, Drone, ETC.	• Carry out vegetation mapping in the field. • Assess range condition at a designated site.	Guide students to: • Carry out vegetation mapping in the field. • Assess range condition at a designated site.	Vegetation maps, Remote sensing images, Quadrants, Field guides, GPS, Field notebooks, Drone.
General Objective 2.0: Know range improvement and rehabilitation methods						
4-6	2.1 Explain methods of rangeland rehabilitation. 2.2 Explain	• Discuss methods of rangeland rehabilitation. • Discuss Revegetation	Seeding equipment, Native plant seeds,	• Practice seeding and transplanting on a degraded site.	Guide students to: • Practice seeding and transplanting on a degraded site.	Seeding equipment, Native seeds, Herbicides,

	Revegetation techniques: seeding, transplanting. 2.3 Explain control of invasive plant species on rangelands. 2.4 Explain mechanical treatment of rangelands.	techniques: seeding, transplanting. • Discuss control of invasive plant species on rangelands. • Discuss mechanical treatment of rangelands.	Herbicides, Teaching tools, Whiteboard, Marker, etc.	• Identify and control invasive plants on a rangeland.	• Identify and control invasive plants on a rangeland. • Control invasive plant	Degraded rangeland site.
General Objective 3.0: Understand grazing management systems						
7-9	3.1 Explain grazing management systems: continuous, rotational, deferred. 3.2 Explain determination of stocking rate and carrying capacity. 3.3 Explain monitoring of rangeland under different grazing systems. 3.4 Explain integration of livestock and wildlife in grazing management.	• Discuss grazing management systems: continuous, rotational, deferred. • Discuss determination of stocking rate and carrying capacity. • Discuss monitoring of rangeland under different grazing systems. • Discuss integration of livestock and wildlife in grazing management.	Grazing system models, Stocking rate data, Teaching tools, Salt/mineral lick, Ear tag, Eater development equipment, Pasture improvement equipment, Whiteboard, Marker, etc.	• Evaluate a grazing system on a visited ranch. • Calculate stocking rate for a rangeland	Guide students to: • Evaluate a grazing system on a visited ranch. • Calculate stocking rate for a rangeland.	Grazing system models Stocking rate data, Teaching tools Salt/mineral lick, Ear tag, Fencing equipment, Water development equipment, Pasture improvement equipment.
General Objective 4.0: Know integrated range management approaches						

10-12	4.1 Explain integrated range for livestock and wildlife management. 4.2 Explain Agroforestry on rangelands. 4.3 Explain watershed management on rangelands. 4.4 Explain community-based range management.	• Discuss integrated range for livestock and wildlife management. • Discuss Agroforestry on rangelands. • Discuss watershed management on rangelands. • Discuss community-based range management.	Integrated management plans, Agroforestry models, Teaching tools, Whiteboard, Marker, Textbooks, etc.	• Design an agroforestry system for a rangeland. • Develop a community-based range management plan.	Guide students: • Design an agroforestry system for a rangeland. • Develop a community-based range management plan	Integrated management plans, Agroforestry models, Teaching tools.
General Objective 5.0: Understand range economics and policy						
13-15	5.1 Explain the economic importance of rangelands in Nigeria. 5.2 Explain cost-benefit analysis of range management practices. 5.3 Explain national policies on rangeland management. 5.4 Explain international conventions affecting	• Discuss the economic importance of rangelands in Nigeria. • Discuss cost-benefit analysis of range management practices. • Discuss national policies on rangeland management. • Discuss international conventions affecting rangelands.	Policy documents, Economic data, Cost-benefit tools, Whiteboard, Marker, Textbooks, etc.	• Conduct cost-benefit analysis of a range management practice. • Review a national rangeland policy	Guide students to: • Conduct cost-benefit analysis of a range management practice. • Review a national rangeland policy	Economic data, Policy documents, Calculators, Cost-benefit tools.

	rangelands.					
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						



ETHNOZOOLOGY

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: ETHNOZOOLOGY	COURSE CODE: WEM 414	CONTACT HOURS: 4HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOURS/WEEK
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skill of the relationships between humans and animals in cultural and traditional contexts.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the concept and scope of ethno-zoology; 2.0 Know traditional knowledge systems related to wildlife; 3.0 Understand the uses of animals in traditional medicine; 4.0 Know cultural practices related to wildlife; 5.0 Understand the conservation value of ethno-zoological knowledge.		

PROGRAMME: NATIONAL HIGHER DIPLOMA[HND] WILDLIFE ECOTOURISM AND MANAGEMENT;						
COURSE TITLE: ETHNOZOOLOGY				COURSE CODE: WEM 414		CONTACT HOURS: 4HOURS/WEEK
				CREDIT UNIT: 4		THEORETICAL: 1HOURS/WEEK
YEAR: II SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skill of the relationships between humans and animals in cultural and traditional contexts.						
GENERAL OBJECTIVE 1.0: Understand the concept and scope of ethno-zoology;						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain ethno-zoology and its relationship with other disciplines. 1.2 Describe the historical development of ethno-zoology. 1.3 Explain the methods used in ethno-zoological research. 1.4 Explain the importance of ethno-zoology in wildlife management.	• Discuss ethno-zoology and its relationship with other disciplines. • Discuss the historical development of ethno-zoology. • Discuss the methods used in ethno-zoological research. • Discuss the importance of ethno-zoology in wildlife management.	Ethno-zoology texts, Case studies, Teaching tools, Digital camera, Video camera, Audio recorder, GPS, Binoculars, Data storage device, Computers, Printers, etc.	• Conduct an ethno-zoological interview in a local community	Guide students to: • Conduct an ethno-zoological interview in a local community.	Ethno-zoology texts, Case studies, Teaching tools, Digital camera, Video camera, Audio recorder, GPS, Binoculars, Data storage device, Computers, Printers.
General Objective 2.0: Know traditional knowledge systems related to wildlife						

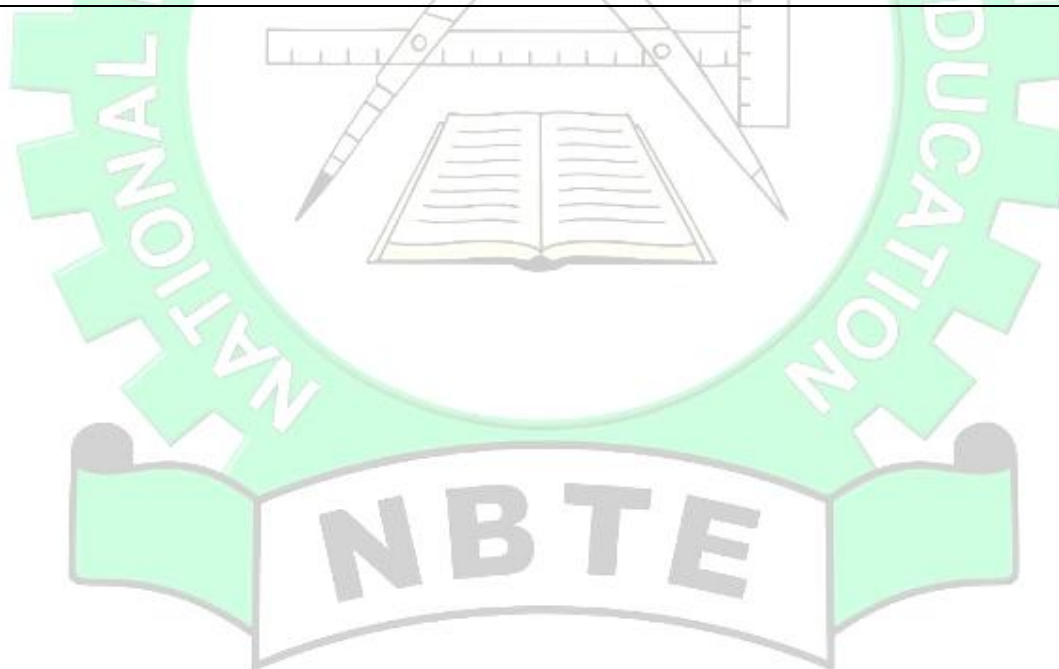
4-6	2.1 Explain traditional ecological knowledge (TEK) related to wildlife. 2.2 Explain how communities classify and name animals (folk taxonomy). 2.3 Explain indigenous practices for wildlife management. 2.4 Explain documentation and preservation of TEK.	• Discuss traditional ecological knowledge (TEK) related to wildlife, • Discuss how communities classify and name animals (folk taxonomy). • Discuss indigenous practices for wildlife management. • Discuss documentation and preservation of TEK.	TEK documentation examples, Folk taxonomy guides, Teaching tools, Textbooks, Whiteboard, Marker, etc.	• Document folk taxonomy of wildlife in a community • Identify indigenous wildlife management practices.	Guide students to: • Document folk taxonomy of wildlife in a community. • Identify indigenous wildlife management practices.	TEK documentation examples, Folk taxonomy guides, Teaching tools.
General Objective 3.0: Understand the uses of animals in traditional medicine						
7-9	3.1 Explain wildlife species used in traditional medicine in Nigeria. 3.2 Explain the parts of animals	• Discuss wildlife species used in traditional medicine in Nigeria. • Discuss the parts of animals used and their medicinal applications. • Discuss the implications of medicinal wildlife	Traditional medicine literature, Wildlife species data, Teaching tools, Whiteboard, Marker, etc.	• Survey medicinal wildlife use in a local market and herbalist. • Assess conservation implications of medicinal wildlife use.	Guide students to: • Survey medicinal wildlife use in a local market and herbalist • Assess conservation implications of medicinal wildlife use.	Traditional medicine literature, Wildlife species data, Teaching tools, Natural

	used and their medicinal applications. 3.3 Explain the implications of medicinal wildlife use on conservation. 3.4 Explain the potential for integrating traditional medicine and conservation.	use on conservation. Discuss the potential for integrating traditional medicine and conservation.	Natural history Museum specimen			history Museum specimen
General Objective 4.0: Know cultural practices related to wildlife						
10-12	4.1 Explain cultural significance of wildlife in Nigerian traditions. 4.2 Explain taboos and totems related to wildlife. 4.3 Explain wildlife in ceremonial practices. 4.4 Explain how cultural practices can	- Discuss cultural significance of wildlife in Nigerian traditions. - Discuss taboos and totems related to wildlife. - Discuss wildlife in ceremonial practices. - Discuss how cultural practices can promote or hinder conservation.	Cultural studies literature, Case studies, Teaching tools, Journals, Whiteboard, Marker, etc.	- Document wildlife taboos and totems in a community. - Analyze cultural practices affecting wildlife conservation	Guide students to: - Document wildlife taboos and totems in a community. - Analyze cultural practices affecting wildlife conservation.	Cultural studies literature, Case studies, Teaching tools, Journals, Traditional priest.

	promote or hinder conservation					
General Objective 5.0: Understand the conservation value of ethno-zoological knowledge						
13-15	5.1 Explain how ethno-zoological knowledge supports biodiversity conservation. 5.2 Explain the integration of TEK into wildlife management plans. 5.3 Explain intellectual property rights related to TEK. 5.4 Explain the future of ethno-zoology in conservation.	• Discuss how ethno-zoological knowledge supports biodiversity conservation. • Discuss the integration of TEK into wildlife management plans. • Discuss intellectual property rights related to TEK • Discuss the future of ethno-zoology in conservation.	Conservation management plans, Intellectual property (IP) texts, Teaching tools, Marker, Whiteboard, etc.	• Integrate TEK into a wildlife management plan. • Discuss intellectual property rights in a community session. • Centre visual content to	Guide students to: • Integrate TEK into a wildlife management plan. • Discuss intellectual property rights in a community session.	Management plan templates, Community data, IP rights documents.
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40% Total: 100%						

WILDLIFE ENTERPRISE AND GAME FARMING

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE ENTERPRISE AND GAME FARMING	COURSE CODE: WEM 415	CONTACT HOURS: 4 HOUR/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1 HOUR/WEEK
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL: 3 HOURS/WEEK
GOAL: This course is designed to provide students with the knowledge and skills on the establishment and management of wildlife enterprise and game farming and their impact on wildlife conservation.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand principles of wildlife enterprise development and game farming; 2.0 Understand establishment and management of wildlife – based enterprise; 3.0 Know the sustainable utilization of wildlife resources; 4.0 Understand entrepreneurship skills for income generation while promoting wildlife conservation.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE ENTERPRISE AND GAME FARMING				COURSE CODE: WEM 415		CONTACT HOURS: 4HOUR/WEEK
				CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: I				PRE-REQUISITE:		PRACTICAL: 3HOUR/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to provide students with the knowledge and skills on the establishment and management of wildlife enterprise and game farming and their impact on wildlife conservation.						
GENERAL OBJECTIVE 1.0: Understand principles of wildlife enterprise development and game farming;						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain wildlife enterprise and game farming concepts. 1.2 Explain the importance of wildlife enterprise and game farming to conservation and livelihoods. 1.3 Explain wildlife enterprises and game farming systems. 1.4 Explain environmental and conservation impacts of game farming.	• Discuss wildlife enterprise and game farming concepts • Discuss the importance of wildlife enterprise and game farming to conservation and livelihoods. • Discuss classes of wildlife enterprises and game farming systems. • State environmental and conservation impacts of game farming.	Charts, Projector, Multimedia presentations, Textbooks, Pictures, Videos, Case studies, etc.	• Identify the concepts of wildlife enterprise and game farming. • Identify the importance of wildlife enterprise and game farming to conservation and rural livelihoods. • Identify the opportunities in wildlife enterprises and game farming systems.	Guide students to: • Identify the concepts of wildlife enterprise and game farming. • Identify the importance of wildlife enterprise and game farming to conservation and rural livelihoods. • Identify the opportunities in wildlife enterprises and game farming systems.	Charts, Projector, Multimedia presentations, Textbooks, Pictures, Video clips, Case studies.

General Objective 2.0: Understand establishment and management of wildlife – based enterprises;						
4-8	2.1 Explain wildlife habitats. 2.2 Explain legal requirements for wildlife enterprises. 2.3 Explain site selection and farm planning. 2.4 Explain game species suitable for farming. 2.5 Explain habitat development and enclosure design. 2.6 Explain feeding and nutrition of game animals. 2.7 Explain breeding and reproduction management. 2.8 Explain health management and disease control. 2.9 Explain climate-induced changes in terrestrial wildlife habitats. 2.10 Explain climate impacts on aquatic wildlife habitats.	• Discuss wildlife habitats • Discuss legal requirements for wildlife enterprises. • Discuss site selection and farm planning • Discuss game species suitable for farming • Discuss habitat development and enclosure design. • Discuss feeding and nutrition of game animals • Discuss breeding and reproduction management • Discuss health management and disease control. • Discuss climate-induced changes in terrestrial wildlife habitats. • Discuss climate impacts on aquatic wildlife habitats.	Charts, Projector, Conservation plans, Policy documents, GIS tools, Relevant laws and policy documents, Whiteboard, Marker, etc.	• Identify game species suitable for farming. • Select site for farm • Design farm enclosure • Construct farm enclosure • Assess climate-induced changes in terrestrial wildlife habitats. • Analyze climate impacts on aquatic wildlife habitats.	Guide students to: • Identify game species suitable for farming. • Select site for farm • Design farm enclosure • Construct farm enclosure • Assess climate-induced changes in terrestrial wildlife habitats. • Analyze climate impacts on aquatic wildlife habitats.	Conservation plans, Policy documents, GIS tools, Species identification guides, Fencing materials, Diagrams, Maps, GPS, Farm plans, Breeding records, Manuals, Veterinary kits, Specimens, Food samples.
General Objective 3.0: Know the sustainable utilization of wildlife resources						

9-12	3.1 Explain the concept of sustainable utilization of wildlife resources. 3.2 Explain wildlife resources. 3.3 Explain wildlife product processing 3.4 Explain value addition concept to wildlife product.	• Discuss the concept sustainable utilization of wildlife resources. • Discuss wildlife resources. • Discuss wildlife product processing. • Discuss value addition concept to wildlife product	Charts, Projector, Whiteboard, Marker, Textbooks, etc.	• Identify wildlife resources. • Process wildlife product. • Carry out value addition to wildlife product.	Guide student to: • Identify wildlife resources. • Process wildlife product. • Carry out value addition to wildlife product	Computers, Research papers, Tracking datasets, Video clips, Wildlife documentaries, Migration maps, GPS tracking data,
General Objective 4.0: Apply entrepreneurship skills for income generation while promoting wildlife conservation						
13- 15	4.1 Explain the concept of entrepreneurship as it applies to wildlife conservation. 4.2 Explain ecotourism opportunities in game farming. 4.3 Explain preparation of a complete wildlife enterprise business plan. 4.4 Explain enterprise budgeting and financial analysis.	• Discuss the concept of entrepreneurship as it applies to wildlife conservation • Discuss ecotourism opportunities in game farming. • Discuss preparation of a complete wildlife enterprise business plan • Discuss enterprise budgeting and financial analysis.	Safety charts, Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.	• Identify ecotourism opportunities in game farming. • Prepare a complete wildlife enterprise business plan • Conduct enterprise budgeting and financial analysis.	Guide students to; • Identify ecotourism opportunities in game farming. • Prepare a complete wildlife enterprise business plan • Conduct enterprise budgeting and financial analysis.	Budget templates, Calculator, Video clips, Case studies.

COURSE ASSESSMENT:

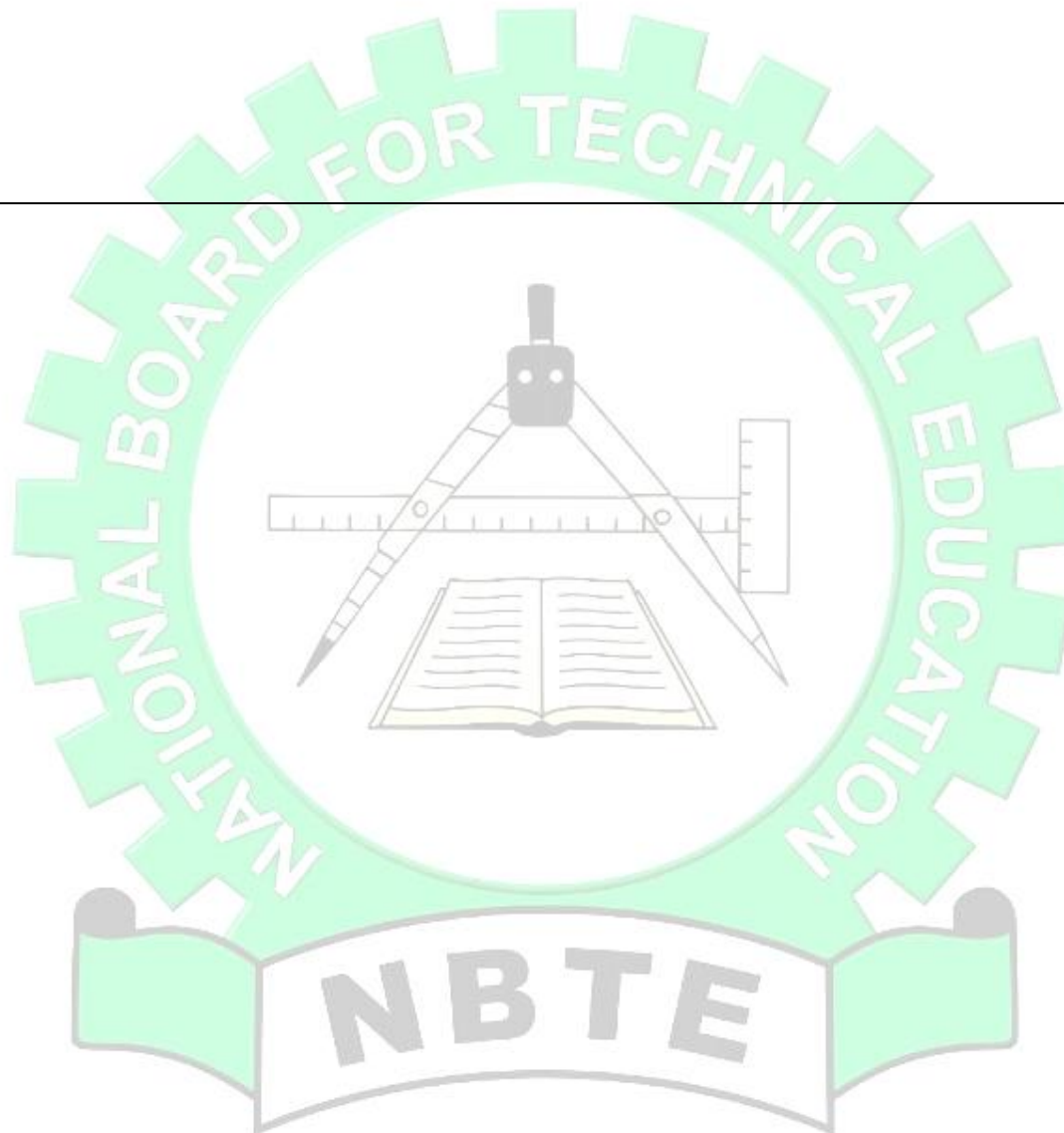
Course Work: 10%

Test/Assignments: 10%

Practical: 40%

Examination: 40%

Total: 100%



WILDLIFE DOMESTICATION AND MULTIPLICATION I

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE DOMESTICATION AND MULTIPLICATION I	COURSE CODE: WEM 416	CONTACT HOURS: 2HOUR/WEEK
	CREDIT UNIT: 2	THEORETICAL: 2HOUR/WEEK
YEAR: II SEMESTER: I	PRE-REQUISITE:	PRACTICAL:
GOAL: This course is designed to acquaint students with knowledge of wildlife domestication and multiplication		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the concept of domestication; 2.0 Understand the techniques for domestication of wild animals; 3.0 Know the care and treatment of a disease domesticated and wild animal; 4.0 Understand the concepts of Apiculture; 5.0 Know the construction of a bee hive; 6.0 Know how to crop and harvest honey.		

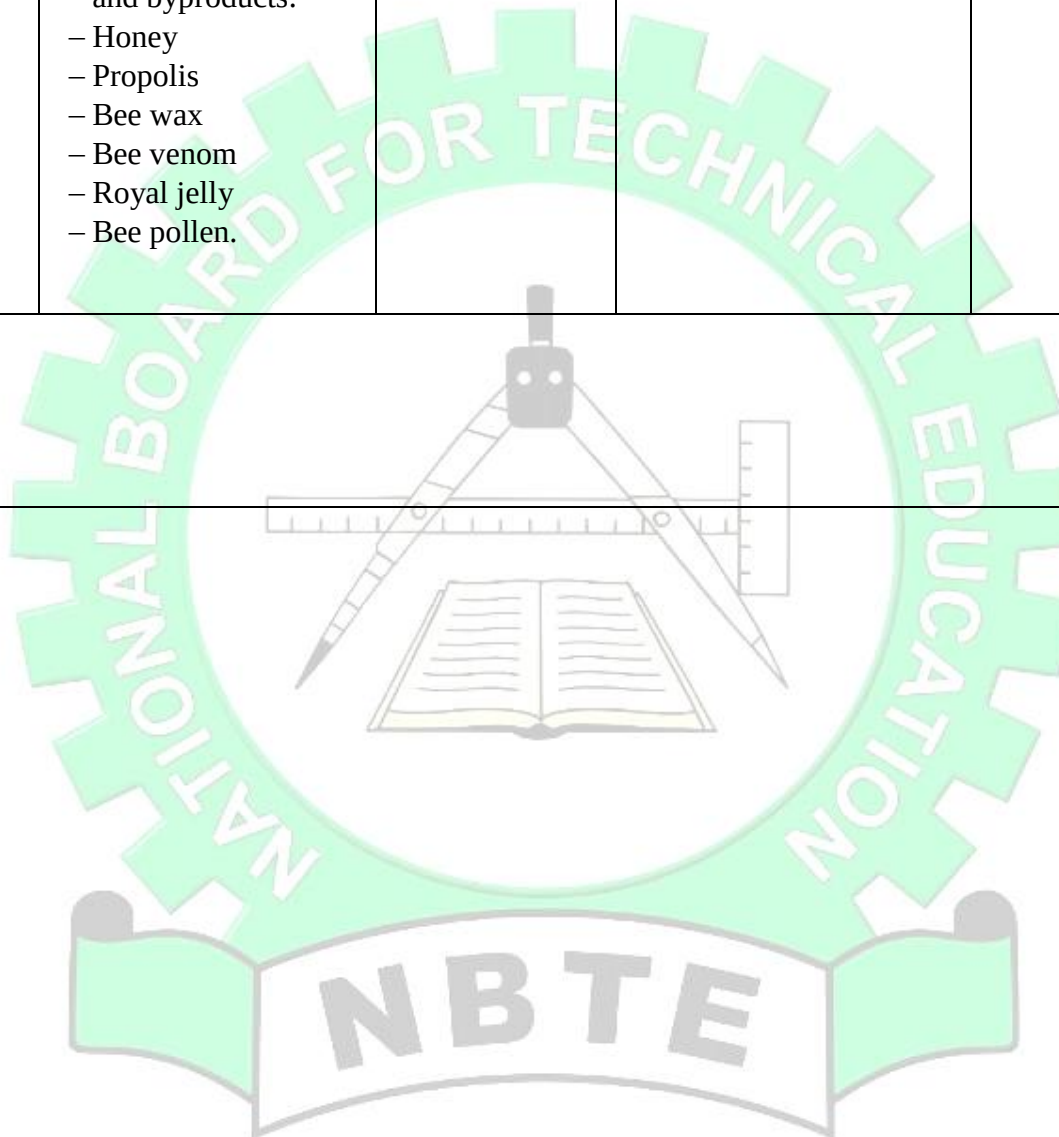
PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE DOMESTICATION AND MULTIPLICATION I			COURSE CODE: WEM 416		CONTACT HOURS: 2HOUR/WEEK	
			CREDIT UNIT: 2		THEORETICAL: 2HOUR/WEEK	
YEAR: II SEMESTER: I			PRE-REQUISITE:		PRACTICAL:	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to acquaint students with knowledge of wildlife domestication and multiplication						
GENERAL OBJECTIVE 1.0: Understand the concept of domestication;						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Explain Domestication. 1.2 Explain the history of domestication of animals: zebra, eland, crocodile, Pheasants and other Birds. 1.3 Explain Domestication of wild animals in Nigeria: Bees, Guinea fowl, Grass cutter, Crocodile, Cane rat, Duiker spp. (Red flanked Duiker etc.) 1.4 Explain the reasons for domestication of wild animals: food,	• Discuss Domestication • Discuss the history of domestication of animals: zebra, eland, crocodile, Pheasants and other Birds • Discuss Domestication of wild animals in Nigeria: Bees, Guinea fowl, Grass cutter, Crocodile, Cane rat, Duiker spp. (Red flanked Duiker etc.) • Discuss the reasons for domestication of wild animals: food,	Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.			

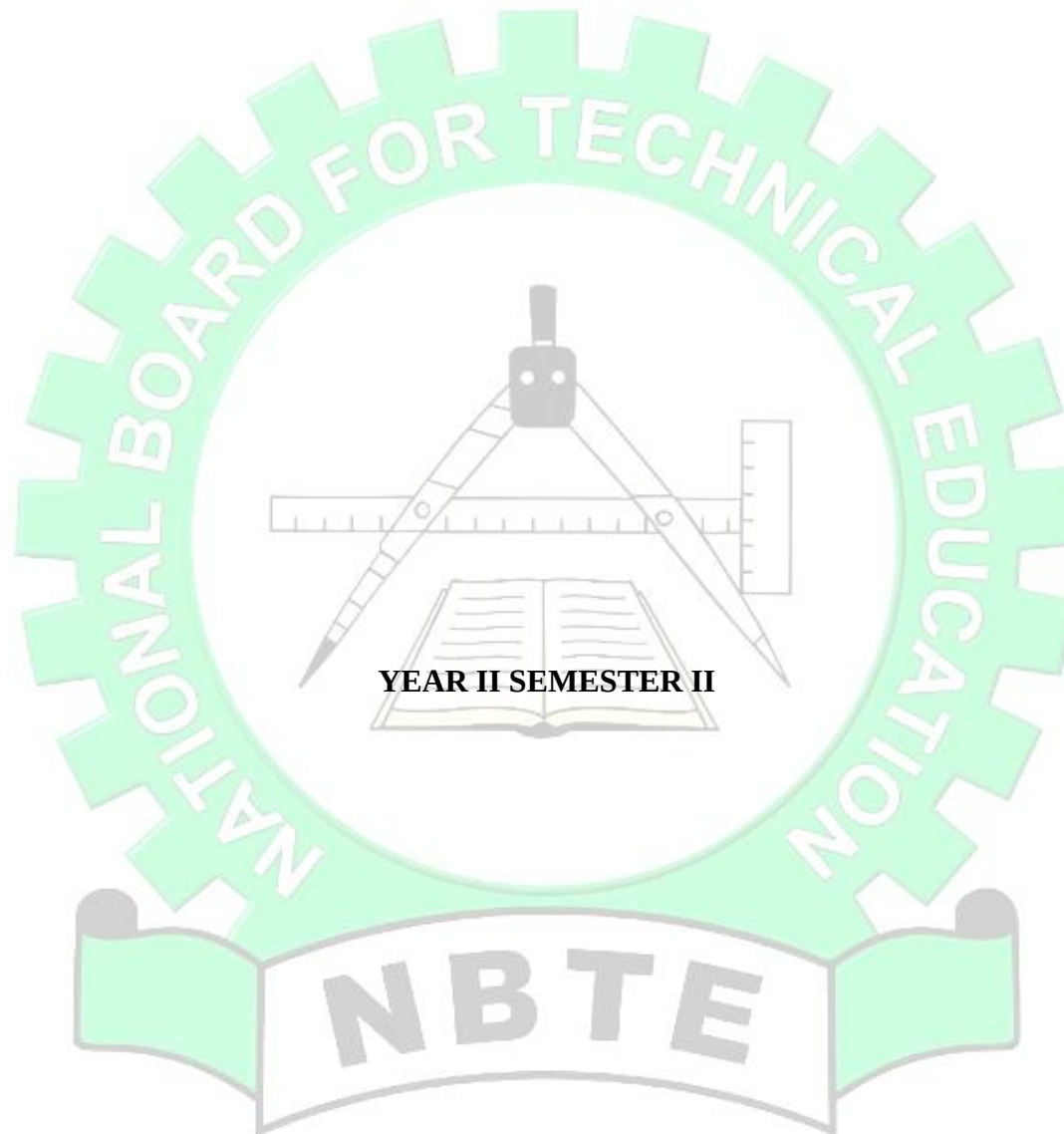
	pets, breeding, aesthetic purposes.	pets, breeding, aesthetic purposes				
General Objective 2.0: Understand the techniques for domestication of wild animals						
2-5	2.1 Explain the economic values of domesticating wild animals: prolific nature, protein value, employment, byproducts, foreign earnings. 2.2 Explain factors governing acceptability of wild animals for domestication: growth rate, religion and taboos. 2.3 Explain effects of geographical/clinical displacement of wild animals. 2.4 Explain various capture techniques for wild animals. 2.5 Explain capture trials of wild animals. 2.6 Explain measurement, observation and	• Discuss the economic values of domesticating wild animals: prolific nature, protein value, employment, byproducts, foreign earnings. • Discuss factors governing acceptability of wild animals for domestication: growth rate, religion and taboos. • Discuss effects of geographical/clinical displacement of wild animals. • Discuss various capture techniques for wild animals. • Discuss capture trials of wild animals. • Discuss measurement, observation and description of animal	Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.			

	description of animal dimensions and forms. 2.7 Explain construction of cages for different animals: Bees, Birds, Rodents, Primates, Reptiles. 2.8 Explain food ration formulation procedure. 2.9 Explain Formular using in food ration formation for wild animals.	dimensions and forms. • Discuss construction of cages for different animals: Bees, Birds, Rodents, Primates, Reptiles. • Discuss food ration formulation procedure. • Discuss Formular using in food ration formation for wild animals.				
General Objective 3.0: Know the care and treatment of a disease domesticated and wild animal						
6-8	3.1 Explain quarantine. 3.2 Explain modern quarantine facilities. 3.3 Explain the state of various symptoms of ill-health in wild animals. 3.4 Explain the management of a sick animal, prescribe and administer drugs. 3.5 Explain through post-mortem	• Discuss quarantine • Discuss modern quarantine facilities. • Discuss the state of various symptoms of ill-health in wild animals. • Discuss the management of a sick animal, prescribe and administer drugs. • Discuss through	Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.			

	examination.	post-mortem examination.				
General Objective 4.0: Understand the concepts of Apiculture						
9-12	4.1 Explain the castes of honey bees: Queen, Drone, Workers. 4.2 Explain the role of each caste in the colony. 4.3 Explain beekeeping equipment. 4.4 Explain the Establishment and maintenance a bee apiary.	• Discuss the castes of honey bees: Queen, Drone, Workers. • Discuss the role of each caste in the colony. • Discuss beekeeping equipment. • Discuss the Establishment and maintenance a bee apiary.	Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.			
General Objective 5.0: Know how to detect suitable bee habitat						
13-15	5.1 Explain factors that determine suitable bee habitat 5.2 Explain the types of bee hives and describe their methods of construction: log hive, top-bar hive, Lang troth hive 5.3 Explain site selection criteria for an apiary 5.4 Explain construction of a bee hive.	• Discuss factors that determine suitable bee habitat. • Discuss the types of bee hives and describe their methods of construction: log hive, top-bar hive, Lang troth hive. • Discuss site selection criteria for an apiary. • Discuss construction of a bee hive. • Discuss bee products	Projector, Computers, Maker board, Journals, Record keeping, Marker, Textbooks, etc.			

	5.5 Explain bee products and byproducts: i. Honey ii. Propolis iii. Bee wax iv. Bee venom v. Royal jelly vi. Bee pollen.	and byproducts: – Honey – Propolis – Bee wax – Bee venom – Royal jelly – Bee pollen.				
COURSE ASSESSMENT: Course Work: 20% Test/Assignments: 20% Examination: 60% Total: 100%						





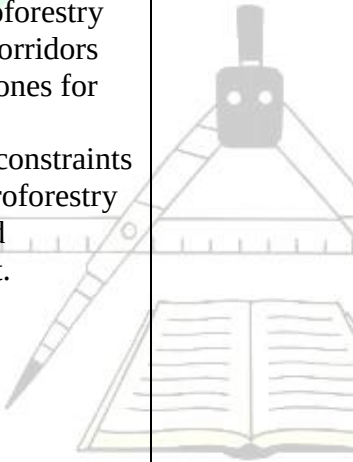
INTEGRATED FORESTRY SYSTEMS, OPERATION TECHNIQUES AND WILDLIFE CONSERVATION

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: INTEGRATED FORESTRY SYSTEMS, OPERATION TECHNIQUES AND WILDLIFE CONSERVATION	COURSE CODE: WEM 421	CONTACT HOURS: 4 HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1 HOURS/WEEK
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3 HOURS/WEEK
GOAL: This course is designed to equip students with the knowledge and skills to assess, manage and sustainably utilize forest resources while promoting wildlife conservation and ecosystem sustainability.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the principles and practices of sustainable forest resource management and wildlife conservation; 2.0 Know forest inventory and resource assessment for management and planning purposes; 3.0 Know sustainable harvesting techniques for timber and non-timber forest products; 4.0 Understand the ecological and socio-economic importance of agroforestry systems in wildlife conservation; 5.0 Know the effects of forest resource utilization on wildlife habitats and biodiversity; 6.0 Understand integrated forest management plans that balance resources use with conservation objectives; 7.0 Know sustainable forest resources utilization practices that enhance biodiversity conservation and community livelihoods.		

PROGRAMME: NATIONAL HIGHER DIPLOMA[HND] WILDLIFE ECOTOURISM AND MANAGEMENT;						
COURSE TITLE: INTEGRATED FORESTRY SYSTEMS, OPERATION TECHNIQUES AND WILDLIFE CONSERVATION				COURSE CODE: WEM 421		CONTACT HOURS: 4 HOURS/WEEK
				CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: II				PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills to assess, manage and sustainably utilize forest resources while promoting wildlife conservation and ecosystem sustainability.						
GENERAL OBJECTIVE 1.0: Understand the principles and practices of sustainable forest resource management and wildlife conservation						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Explain the concept of sustainable forest resource management. 1.2 Describe the principles of wildlife conservation. 1.3 Distinguish timber resources from non-timber forest resources. 1.4 Explain the relationship between forest resources and wildlife conservation. 1.5 Explain the importance of ecosystem	• Discuss the concept of sustainable forest resource management. • Explain the principles of wildlife conservation. • Discuss timber resources from non-timber forest resources. • Discuss the relationship between forest resources and wildlife conservation. • Explain the importance of ecosystem sustainability in forest management.	Lecture notes, Handouts, Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc.	• Identify forest resources and wildlife values in selected sites. • Categorize resources into timber non-timber habitat and wildlife components. • Record examples of sustainable and unsustainable resource use. • Sketch relationships between forest resources and wildlife habitats. • Prepare field notes on	Guide students to: • Identify forest resources and wildlife values in selected sites. • Categorize resources into timber non-timber habitat and wildlife components. • Record examples of sustainable and unsustainable resource use. • Sketch relationships between forest resources and wildlife habitats.	Forest maps, Markers, Boots, First aid.

	sustainability in forest management.			ecosystem sustainability indicators. • Present observations on forest resource and wildlife conservation links.	• Prepare field notes on ecosystem sustainability indicators. • Present observations on forest resource and wildlife conservation links.	
General Objective 2.0: Know forest inventory and resource assessment for management and planning purposes.						
3-4	2.1 Explain the purpose of forest inventory in resource management. 2.2 Describe basic forest resource assessment methods. 2.3 Differentiate qualitative and quantitative inventory data. 2.4 Explain the relevance of inventory information to management planning. 2.5 Explain the quality of resource assessment data for decision-making.	• Discuss the purpose of forest inventory in resource management. • Explain basic forest resource assessment methods. • Explain qualitative and quantitative inventory data. • Discuss the relevance of inventory information to management planning. • Explain the quality of resource assessment data for decision-making.	Lecture notes, Handouts, Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc.	• Establish simple sample plots or transects in a selected forest area. • Identify tree species and selected non-timber forest resources. • Measure tree diameter height and spacing using basic tools. • Record forest resource data in inventory sheets. • Use GPS or mobile tools to mark field locations. • Prepare a simple resource assessment summary.	Guide students to: • Establish simple sample plots or transects in a selected forest area. • Identify tree species and selected non-timber forest resources. • Measure tree diameter height and spacing using basic tools. • Record forest resource data in inventory sheets. • Use GPS or mobile tools to mark field locations. • Prepare a simple resource assessment summary.	Diameter tape, Measuring tape, GPS device, Compass, Inventory sheets, Checklists, Field notebooks, Boots, Gloves.

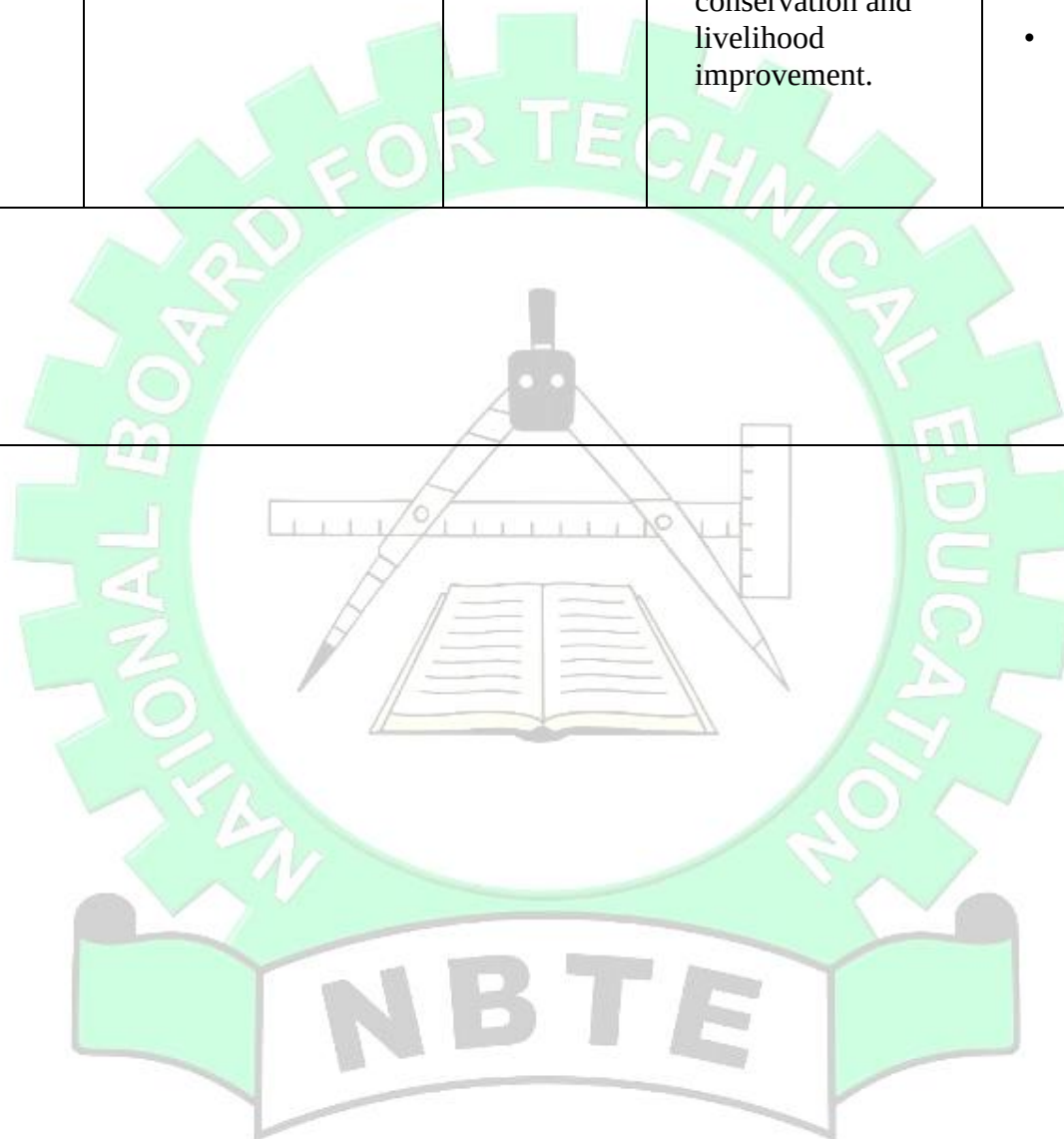
General Objective 3.0: Know sustainable harvesting techniques for timber and non-timber forest products.						
5-6	3.1 Explain sustainable harvesting in forest resource management. 3.2 Describe harvesting guidelines for timber and non-timber products. 3.3 Explain selective harvesting and destructive extraction practices. 3.4 Explain the effects of harvesting methods on regeneration and habitats. 3.5 Explain harvesting practices using sustainability and conservation criteria.	• Explain sustainable harvesting in forest resource management. • Discuss harvesting guidelines for timber and non-timber products. • Discuss selective harvesting and destructive extraction practices. • Explain the effects of harvesting methods on regeneration and habitats. • Discuss harvesting practices using sustainability and conservation criteria.	Lecture notes, Handouts, Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc.	• Mark harvestable and non-harvestable forest resources during field exercises. • Demonstrate low-impact harvesting procedures using safe methods. • Collect selected non-timber forest products using sustainable techniques. • Record harvesting impacts on regeneration and habitat conditions. • Apply safety procedures during harvesting demonstrations. • Prepare a harvesting sustainability checklist.	Guide students to: • Mark harvestable and non-harvestable forest resources during field exercises. • Demonstrate low-impact harvesting procedures using safe methods. • Collect selected non-timber forest products using sustainable techniques. • Record harvesting impacts on regeneration and habitat conditions. • Apply safety procedures during harvesting demonstrations. • Prepare a harvesting sustainability checklist.	Measuring tape, Flagging tape, Pruning knife, Sample bags, Checklists, Recording sheets, Gloves, Boots.
General Objective 4.0: Understand the ecological and socio-economic importance of agroforestry systems in wildlife conservation.						
7-8	4.1 Explain agroforestry systems and their	• Explain agroforestry systems and their	Lecture notes, Handouts,	• Identify agroforestry practices in selected	Guide students to: • Identify agroforestry	Measuring tape,

	conservation functions. 4.2 Describe ecological benefits of agroforestry for wildlife habitats. 4.3 Explain socio-economic benefits of agroforestry for rural households. 4.4 Explain agroforestry systems as corridors and buffer zones for wildlife. 4.5 Explain the constraints affecting agroforestry adoption and management.	conservation functions. • Explain ecological benefits of agroforestry for wildlife habitats. • Discuss the socio-economic benefits of agroforestry for rural households. • Explain agroforestry systems as corridors and buffer zones for wildlife. • Discuss the constraints affecting agroforestry adoption and management.	Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc. 	farm or forest-edge communities. • Map tree crop and livestock arrangements in agroforestry systems. • Record wildlife-friendly features in agroforestry fields. • Assess socio-economic benefits reported by farmers or community members. • Prepare an agroforestry conservation profile. • Present field observations on agroforestry and wildlife conservation.	practices in selected farm or forest-edge communities. • Map tree crop and livestock arrangements in agroforestry systems. • Record wildlife-friendly features in agroforestry fields. • Assess socio-economic benefits reported by farmers or community members. • Prepare an agroforestry conservation profile. • Present field observations on agroforestry and wildlife conservation.	Sketch sheets, Pencils, Markers, Camera, GPS device.
General Objective 5.0: Know the effects of forest resource utilization on wildlife habitats and biodiversity.						
9-10	5.1 Describe forest resources utilization activities affecting biodiversity. 5.2 Explain habitat disturbance caused	• Explain forest resources utilization activities affecting biodiversity. • Explain habitat disturbance caused by	Lecture notes, Handouts, Charts, Projector, Slides, Internet,	• Observe signs of forest disturbance in selected field locations. • Record habitat changes linked to	Guide students to: • Observe signs of forest disturbance in selected field locations. • Record habitat	

	by unsustainable resources use. 5.3 Explain the effects of logging farming grazing and fire on wildlife habitats. 5.4 Explain biodiversity indicators affected by resources utilization. 5.5 Explain mitigation measures for reducing habitat and biodiversity loss.	unsustainable resources use. • Discuss the effects of logging farming grazing and fire on wildlife habitats. • Discuss biodiversity indicators affected by resources utilization. • Discuss mitigation measures for reducing habitat and biodiversity loss.	Diagrams, Whiteboard, Marker, etc.	resources utilization. • Assess biodiversity indicators using a simple checklist. • Identify visible threats to wildlife habitat and forest cover. • Prepare a field impact assessment summary.	changes linked to resources utilization. • Assess biodiversity indicators using a simple checklist. • Identify visible threats to wildlife habitat and forest cover. • Prepare a field impact assessment summary.	
General Objective 6.0: Understand integrated forest management plans that balance resources use with conservation objectives.						
11-12	6.1 Explain the components of integrated forest management plans. 6.2 Describe planning objectives for resources use and conservation. 6.3 Explain stakeholder roles in integrated forest management practices. 6.4 Differentiate between trade-offs and resources utilization. 6.5 Describe planning criteria for integrated	• Discuss the components of integrated forest management plans. • Explain planning objectives for resources use and conservation. • Discuss stakeholder roles in integrated forest management practices. • Discuss trade-offs and resources utilization. • Explain planning criteria for integrated forest management practices.	Lecture notes, Handouts, Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc.	• Collect field information required for an integrated management plan. • Prepare a simple forest resource-use map. • Consult selected stakeholders on resource use and conservation priorities. • Draft management objectives for a selected protected area. • Develop a simple	Guide students to • Collect field information required for an integrated management plan. • Prepare a simple forest resource-use map. • Consult selected stakeholders on resources use and conservation priorities. • Draft management objectives for a selected protected area.	Templates, Maps, Checklists, Registers, Notebooks, Pens, Clipboards, Laptop, Smartphone.

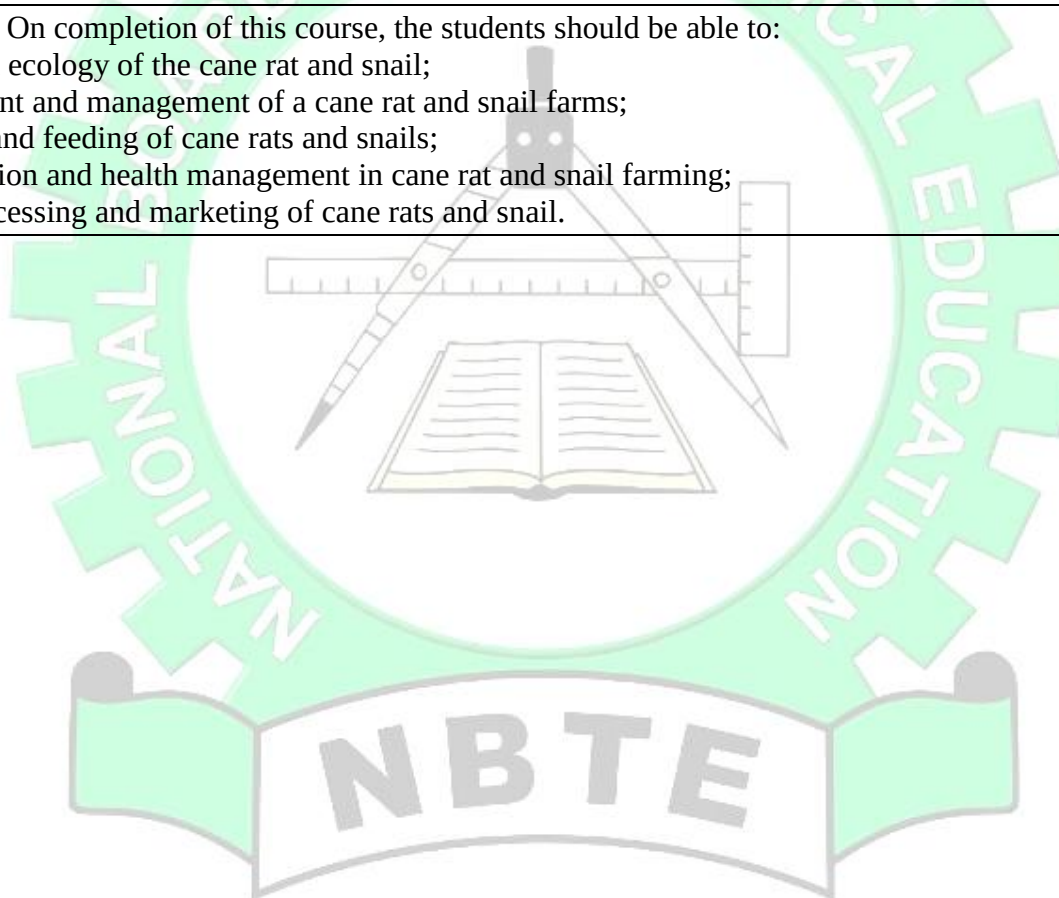
	forest management practices.			integrated forest management plan. • Present the plan for peer or instructor review.	• Develop a simple integrated forest management plan. • Present the plan for peer or instructor review.	
General Objective 7.0: Know sustainable forest resources utilization practices that enhance biodiversity conservation and community livelihoods.						
13-15	7.1 Explain sustainable utilization practices that support biodiversity conservation. 7.2 Describe the relationship between forest resources and community livelihoods. 7.3 Explain extension strategies for promoting sustainable forest resource use. 7.4 Describe community participation in sustainable forest and wildlife management. 7.5 Explain strategies for improving sustainable utilization and livelihood	• Discuss sustainable utilization practices that support biodiversity conservation. • Discuss the relationship between forest resources and community livelihoods. • Explain extension strategies for promoting sustainable forest resource use. • Discuss community participation in sustainable forest and wildlife management. • Explain strategies for improving sustainable utilization and livelihood benefits.	Lecture notes, Handouts, Charts, Projector, Slides, Internet, Diagrams, Whiteboard, Marker, etc.	• Prepare awareness messages on sustainable forest resource utilization. • Demonstrate selected sustainable resource-use practices to community groups. • Develop simple extension materials for biodiversity conservation. • Collect community feedback on sustainable forest-use practices. • Evaluate field relevance of recommended sustainable utilization practices. • Produce a practical report on	Guide Students to: • Prepare awareness messages on sustainable forest resource utilization. • Demonstrate selected sustainable resource-use practices to community groups. • Develop simple extension materials for biodiversity conservation. • Collect community feedback on sustainable forest-use practices. • Evaluate field relevance of recommended sustainable utilization	Posters, Feedback forms, Checklists, Templates.

	benefits.			conservation and livelihood improvement.	practices. Produce a practical report on conservation and livelihood improvement.	
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical 40% Examination 40% Total: 100%						



WILDLIFE DOMESTICATION AND MULTIPLICATION II

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE DOMESTICATION AND MULTIPLICATION II	COURSE CODE: WEM 422	CONTACT HOURS: 4 HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and modern skills in wildlife domestication and multiplication.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know the biology and ecology of the cane rat and snail; 2.0 Know the establishment and management of a cane rat and snail farms; 3.0 Understand nutrition and feeding of cane rats and snails; 4.0 Know disease prevention and health management in cane rat and snail farming; 5.0 Know harvesting, processing and marketing of cane rats and snail.		



PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE DOMESTICATION AND MULTIPLICATION II			COURSE CODE: WEM 422		CONTACT HOURS: 4HOURS/WEEK	
			CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK	
YEAR: II SEMESTER: II			PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and modern skills in wildlife domestication and multiplication						
GENERAL OBJECTIVE 1.0: Know the biology and ecology of the cane rat and snail;						
	THEORETICAL CONTENT			PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Explain the cane rat and snail taxonomically. 1.2 Explain the morphology and anatomy of the cane rat and snail. 1.3 Explain the life cycle and reproductive biology of the cane rat and snail. 1.4 Explain the natural habitat and ecological requirements of cane rats and snail.	• Discuss cane rat and snail specimens for classification. • Discuss the anatomy of cane rat and snail using diagrams. • Discuss life cycle and reproductive rates of cane rat and snail.	Anatomical diagrams, Textbooks, Whiteboard, Marker, Multimedia projector, etc.	• Identify cane rat and snail and differentiate from them other domestic animals. • Examine cane rat and snail anatomy from specimens.	Guide students to; • Identify the species of cane rat and snail. • Supervise specimens examination.	Cane rat specimens, Snail specimens, Magnifying lenses, Identification guides.
General Objective 2.0: Know the establishment and management of a cane rat and snail farms						
4-6	2.1 Explain site	• Discuss designs of	Anatomical	• Construct a	Guide students to:	Construction

	selection and farm layout for cane rat and snail productions. 2.2 Explain design and construction of cane rat pens and snail housing units. 2.3 Explain stocking density and management of breeding stock of cane rat and snail 2.4 Explain environmental management requirements for cane rat and snail farming.	cane rat pens and snail housing units. • Discuss site selection and farm layout for cane rat and snail. • Discuss pen and housing unit constructions.	diagrams, Textbooks, Whiteboard, Marker, Multimedia projector, etc.	simple cane rat pen • Construct a simple snail housing unit • Stock cane rats and snail and manage breeding	• Construct a simple cane rat pen • Construct a simple snail housing unit • Stock cane rats and snail and manage breeding	materials, Tools, Cane rat pens, Snail housing unit, Breeding stock.
General Objective 3.0: Understand nutrition and feeding of cane rats and snails						
7-9	3.1 Explain the natural diet of cane rats and snails 3.2 Explain formulation of feed rations for cane rats and snails 3.3 Explain feeding management in a cane rat and snail farms.	• Discuss cane rat and snail nutrition. • Discuss feed formulation for cane rats and snails. • Discuss feeding management and water requirements for cane rat and snails.	Anatomical diagrams, Textbooks, Whiteboard, Marker, Multimedia projector, etc.	• Formulate a feed ration for cane rats and snails of different age categories. • Feed cane rats and snails and • Record daily intake of food.	Guide student to: • Formulate a feed ration for cane rats and snails of different age categories. • Feed cane rats and snails and record daily intake of food.	Feed ingredients, Weighing balance, Feeding trough, Water trough, Feeding records.

	3.4 Explain water requirements of cane rats and snails.					
General Objective 4.0: Know disease prevention and health management in cane rat and snail farming						
10-12	4.1 Explain common diseases and parasites of cane rats and snails. 4.2 Explain signs of diseases and ill-health in cane rats and snails. 4.3 Explain prevention, treatment and control measures for cane rats and snails 4.4 Explain biosecurity measures in cane rat and snail farming enterprises.	• Discuss cane rat and snail diseases. • Show specimens or photographs of diseased animals. • Discuss prevention and treatment protocols.	Anatomical diagrams, Textbooks, Whiteboard, Marker, Multimedia projector, etc.	• Identify disease signs in cane rats and snails • Apply preventive measures in the cane rat and snail farms.	Guide students to: • Identify disease signs in cane rats and snails • Apply preventive measures in the cane rat and snail farms.	Cane rat specimens, Protective gear, Veterinary drugs, Gloves.
General Objective 5.0: Know harvesting, processing and marketing of cane rats and snails						
13-15	5.1 Explain harvesting methods and timing for cane rats and snails 5.2 Explain post-harvest handling	• Discuss harvesting and processing methods for cane rats and snails. • Discuss slaughter and processing of	Anatomical diagrams, Textbooks, Whiteboard, Marker, Multimedia	• Slaughter and process a cane rat meat. • Process snail meat. • Analyze costs and revenue of cane rat	Guide students to: • Slaughter and process a cane rat meat. • Process snail meat. • Analyze costs and revenue of cane rat and snail	Processing equipment, Weighing balance, Economic analysis tools.

	and slaughter procedures for cane rat. 5.3 Explain post-harvest handling procedures for snail. 5.4 Explain processing methods: fresh, smoked, dried. 5.5 Explain marketing channels and economic analysis of cane rat and snail farming.	cane rats. • Discuss processing of snails • Discuss marketing channels and profitability of cane rats and snails.	projector, etc.	and snail productions.	productions.	
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical 40% Examination 40% Total: 100%						

BIODIVERSITY MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: BIODIVERSITY MANAGEMENT	COURSE CODE: WEM 423	CONTACT HOURS: 4HOURS/WEEK
	CREDIT UNIT: 4	THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 3HOURS/WEEK
GOAL: This course is designed to equip students with the knowledge and skills to conserve, protect, and manage biodiversity.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the concepts of biodiversity; 2.0 Know the ecological relationships between forest ecosystems and wildlife populations; 3.0 Know major threats to biodiversity and mitigation measures; 4.0 Apply biodiversity assessment and monitoring techniques in an ecosystem; 5.0 Understand strategies for forest protection and sustainable wildlife management; 6.0 Understand community participation and stakeholder engagement in biodiversity conservation initiatives; 7.0 Know conservation plans for the protection of biodiversity.		

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: BIODIVERSITY MANAGEMENT				COURSE CODE:WEM 423		CONTACT HOURS: 4HOURS/WEEK
				CREDIT UNIT: 4		THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: II				PRE-REQUISITE:		PRACTICAL: 3HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with the knowledge and skills to conserve, protect, and manage biodiversity.						
GENERAL OBJECTIVE 1.0 Understand the concepts of forest biodiversity.						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-2	1.1 Explain biodiversity and types of biodiversity. 1.2 Explain the importance of biodiversity. 1.3 Explain levels of biodiversity in forest ecosystem. 1.4 Explain conservation from preservation in wildlife management.	• Discuss biodiversity and types of biodiversity. • Explain the importance of biodiversity. • Discuss levels of biodiversity in forest ecosystem. • Discuss conservation from preservation in wildlife management.	Instructional resources, Biodiversity Textbooks, Conservation manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc.	• Identify forest biodiversity components during field observation. • Record examples of plant and animal species in selected habitats. • Locate forest areas requiring ecosystem protection. • Differentiate conserved sites from degraded sites during fieldwork. • Prepare field notes on biodiversity values for conservation and ecotourism. • Present observed	Guide students to: • Identify forest biodiversity components during field observation. • Record examples of plant and animal species in selected habitats. • Locate forest areas requiring ecosystem protection. • Differentiate conserved sites from degraded sites during fieldwork. • Prepare field notes on biodiversity values for conservation and ecotourism.	Conservation manuals, Biodiversity database, Charts, Diagrams, Species posters, Projector, Slides, Camera, Camera traps, Binoculars, Boots, First aid.

				biodiversity components to the class.	• Present observed biodiversity components to the class.	
General Objective 2.0: Know the ecological relationships between forest ecosystems and wildlife populations.						
3-4	2.1 Explain major ecosystem components. 2.2 Explain wildlife habitat requirements in ecosystems. 2.3 Interpret food chains and food webs in ecosystem. 2.4 Explain ecological interactions between plants and wildlife. 2.5 Explain how habitat changes affect wildlife populations.	• Discuss major ecosystem components. • Explain wildlife habitat requirements in ecosystems. • Discuss food chains and food webs in ecosystem. • Discuss ecological interactions between plants and wildlife. • Discuss how habitat changes affect wildlife populations.	Instructional resources, Biodiversity Textbooks, Conservation manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	• Identify habitat features supporting wildlife populations. • Observe feeding and shelter relationships in field sites. • Map simple food chains from selected forest species. • Record signs of wildlife presence in forest habitats. • Compare habitat conditions across selected field locations. • Prepare a field summary on ecosystem-wildlife relationships.	Guide students to: • Identify wildlife habitat features. • Demonstrate observation of feeding and shelter relationships. • Prepare simple food-chain maps. • Record wildlife signs accurately. • Review field summaries on ecosystem-wildlife relationships.	Field resources, Field notebooks, Pencils, Clipboards, Observation sheets, Mapping resources, Maps, Compass, GPS device, Safety resources, Boots, Gloves, etc.
General Objective 3.0: Know major threats to biodiversity and mitigation measures						
5-6	3.1 Identify major threats to biodiversity. 3.2 Explain causes of habitat loss and	• Discuss major threats to biodiversity. • Discuss causes of habitat loss and forest degradation.	Instructional resources, Biodiversity Textbooks, Conservation	• Identify visible threats in selected forest or wildlife sites. • Record evidence of degradation and	Guide students to: • Identify visible threats in selected forest or wildlife sites. • Record evidence of	Field resources, Notebooks, Pens, Clipboards,

	forest degradation. 3.3 Explain the effects of poaching and illegal trade on wildlife resources. 3.4 Explain human activities affecting biodiversity conservation. 3.5 Explain how to restore biodiversity. 3.6 Explain biodiversity threat mitigation measures.	• Discuss the effects of poaching and illegal trade on wildlife resources. • Discuss how to restore biodiversity. • Discuss human activities affecting biodiversity conservation. • Discuss biodiversity threat mitigation measures.	manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	resource disturbance. • Classify threats into natural and human-induced categories. • Interview local stakeholders on biodiversity threats. • Prepare a threat-mitigation checklist for field use. • Present practical mitigation measures for selected threats.	degradation and resource disturbance. • Classify threats into natural and human-induced categories. • Interview local stakeholders on biodiversity threats. • Prepare a threat-mitigation checklist for field use. • Present practical mitigation measures for selected threats.	Checklists, Data tools, Interview guide, Threat sheet, Camera, Safety resources, Boots, First aid.
General Objective 4.0: Apply biodiversity assessment and monitoring techniques in forest ecosystems.						
7-9	4.1 Explain biodiversity assessment techniques used in forest ecosystems. 4.2 Explain sampling procedures for plant and wildlife assessment. 4.3 Explain indicators used in biodiversity monitoring. 4.4 Explain field data	• Discuss biodiversity assessment techniques used in forest ecosystems. • Discuss sampling procedures for plant and wildlife assessment. • Discuss indicators used in biodiversity monitoring. • Discuss field data for biodiversity status assessment.	Instructional resources, Biodiversity Textbooks, Conservation manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	• Establish simple transects in a selected forest area. • Lay quadrats for plant diversity assessment. • Count selected plant and wildlife indicators in sample areas. • Record biodiversity data using standard field sheets. • Use GPS to mark sample points during field monitoring.	Guide students to: • Establish simple transects in a selected forest area. • Lay quadrats for plant diversity assessment. • Count selected plant and wildlife indicators in sample areas. • Record biodiversity data using standard field sheets. • Use GPS to mark sample points during	Instructional resources, Biodiversity textbooks, Conservation manuals, Biodiversity database, Charts, Diagrams, Species posters, Projector, Slides,

	for biodiversity status assessment. 4.5 Explain the suitability of monitoring methods for forest conditions.	Explain the suitability of monitoring methods for forest conditions.		- Prepare simple tables showing biodiversity observations. - Report monitoring findings to the instructor.	field monitoring. - Prepare simple tables showing biodiversity observations. - Report monitoring findings to the instructor.	Camera, Camera traps, Binoculars.
General Objective 5.0: Understand strategies for forest protection and sustainable wildlife management.						
10-11	5.1 Explain forest protection strategies used in conservation practice. 5.2 Explain sustainable wildlife management principles. 5.3 Explain in-situ and ex-situ conservation approaches. 5.4 Explain protected-area management practices. 5.5 Explain conservation strategies using ecological and social criteria.	- Discuss forest protection strategies used in conservation practice. - Discuss sustainable wildlife management principles. - Discuss in-situ and ex-situ conservation approaches. - Discuss protected-area management practices. - Discuss conservation strategies using ecological and social criteria.	Instructional resources, Biodiversity Textbooks, Conservation manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	- Inspect forest protection measures in selected field locations. - Identify signs of patrol control and habitat protection. - Compare conservation practices across selected sites. - Apply evaluation criteria to selected protection strategies. - Record strengths and weaknesses of wildlife management practices. - Prepare a field evaluation report on forest protection.	Guide students to: - Inspect forest protection measures. - Guide identification of patrol and habitat protection signs. - Supervise comparison of conservation practices across sites. - Provide evaluation criteria for protection strategies. - Review field reports on sustainable wildlife management.	Instructional resources, Biodiversity textbooks, Conservation manuals, Biodiversity database, Charts, Diagrams, Species posters, Projector, Slides, Camera, Camera traps, Binoculars.
General Objective 6.0: Understand community participation and stakeholder engagement in biodiversity conservation initiatives.						

12-13	6.1 Explain community participation in biodiversity conservation. 6.2 Explain stakeholder roles in forest and wildlife conservation. 6.3 Explain benefits of participatory conservation approaches. 6.4 Explain barriers to stakeholder engagement in conservation initiatives. 6.5 Explain strategies for improving community support for conservation.	• Discuss community participation in biodiversity conservation. • Discuss stakeholder roles in forest and wildlife conservation. • Discuss benefits of participatory conservation approaches. • Discuss barriers to stakeholder engagement in conservation initiatives. • Discuss strategies for improving community support for conservation.	Instructional resources, Biodiversity Textbooks, Conservation manuals, Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	• Identify stakeholders involved in biodiversity conservation. • Prepare a stakeholder register for a selected conservation area. • Conduct simple consultations with community members. • Record community views on forest and wildlife protection. • Develop a stakeholder engagement map. • Present strategies for improving community participation.	Guide students to; • Identify conservation stakeholders. • Provide a stakeholder register template for field use. • Carry out respectful community consultation. • Supervise recording of community views and concerns. • Moderate presentations on stakeholder engagement strategies.	Instructional resources, Biodiversity textbooks, Conservation manuals, Biodiversity database, Charts, Diagrams, Species posters, Projector, Slides, Camera, Camera traps, Binoculars.
General Objective 7.0: Know conservation plans for the protection of biodiversity						
14-15	7.1 Explain components of a conservation plan. 7.2 Explain planning steps for forest and wildlife resource	• Discuss components of a conservation plan. • Discuss planning steps for forest and wildlife resource	Instructional resources, Biodiversity Textbooks, Conservation manuals,	• Compile field information for conservation planning. • Prioritize conservation problems using field evidence.	Guide students to; • Compile field information for planning. • Demonstrate prioritization of	Instructional resources, Biodiversity textbooks, Conservation manuals,

	protection. 7.3 Explain conservation priorities from field information. 7.4 Explain resource requirements for implementing conservation plans. 7.5 Explain conservation plans for sustainability and feasibility.	protection. • Discuss conservation priorities from field information. • Discuss resource requirements for implementing conservation plans. • Discuss conservation plans for sustainability and feasibility.	Biodiversity Database, Charts, Diagrams, Species posters, Projector, Slides, etc	• Draft a simple forest and wildlife conservation plan. • Prepare an activity schedule for conservation implementation. • Estimate basic resources required for plan implementation. • Present the conservation plan for peer review. • Revise the plan based on feedback.	conservation problems. • Coach students in drafting practical conservation plans. • Provide schedule and resource-estimation templates. • Moderate peer review of conservation plans. • Provide feedback for plan revision and improvement.	Biodiversity database, Charts, Diagrams, Species posters, Projector, Slides, Camera, Camera traps, Binoculars,
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical 40% Examination 40% Total: 100%						

WILDLIFE TOURISM BRANDING AND DIGITAL MARKETING

PROGRAMME: HIGHER NATIONAL DIPLOMA [HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT		
COURSE TITLE: WILDLIFE TOURISM BRANDING AND DIGITAL MARKETING	COURSE CODE: WEM 424	CONTACT HOURS: 3 HOURS/WEEK
	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
YEAR: II SEMESTER: II	PRE-REQUISITE:	PRACTICAL: 2 HOURS/WEEK
GOAL: This course is designed to equip students with knowledge and skills in wildlife tourism product development, destination branding, digital marketing strategy, content creation, online distribution and tourism performance analytics.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Apply wildlife tourism product development and packaging; 2.0 Apply wildlife destination branding and positioning; 3.0 Know digital marketing strategy for wildlife tourism enterprises; 4.0 Apply social media content creation and community management; 5.0 Apply online distribution, booking systems and revenue management; 6.0 Apply tourism marketing performance measurement and optimization.		

PROGRAMME: HIGHER NATIONAL DIPLOMA[HND] IN WILDLIFE ECOTOURISM AND MANAGEMENT						
COURSE TITLE: WILDLIFE TOURISM BRANDING AND DIGITAL MARKETING				COURSE CODE: WEM 423		CONTACT HOURS: 3HOURS/WEEK
				CREDIT UNIT: 3		THEORETICAL: 1HOUR/WEEK
YEAR: II SEMESTER: II				PRE-REQUISITE:		PRACTICAL: 2HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in wildlife tourism product development, destination branding, digital marketing strategy, content creation, online distribution and tourism performance analytics.						
GENERAL OBJECTIVE 1.0: Apply wildlife tourism product development and packaging						
THEORETICAL CONTENT				PRACTICAL CONTENT		
Week	Specific Learning Outcome	Teacher’s Activities	Resources	Specific Learning Outcome	Teacher’s Activities	Resources
1-3	1.1 Describe wildlife tourism product types and their target markets: game drives, walking safaris, night drives, birding tours, photography safaris, conservation volunteering and cultural wildlife experiences. 1.2 Explain how to design a compelling wildlife tourism	- Discuss wildlife tourism product types with target market and Nigerian ecotourism examples for each type. - Discuss wildlife tourism experience package design with itinerary, inclusions and conservation story examples. - Discuss tourist experience design framework application for one Nigerian wildlife tourism product.	Wildlife tourism product types and target market guide, Wildlife tourism package design template, Tourist experience design framework, Wildlife tourism package pricing guide, Wildlife tourism product Portfolio template, Projector, etc.	- Design three wildlife tourism experience packages for one. - Nigerian destination. - Record target segment, product name, itinerary, duration, inclusions, conservation story and price for each package - Apply the tourist experience design framework to one wildlife tourism product - Record how the enterprise enhances each of the five stages: anticipation, travel, on-	Guide students to: - Design three wildlife tourism experience packages for one. - Nigerian destination; record target segment, product name, itinerary, duration, inclusions, conservation story and price for each package. - Apply the tourist experience design framework to one wildlife tourism	Wildlife tourism package design template, Tourist experience design framework, Package pricing calculation Worksheet, Wildlife tourism product portfolio template, African destination research guide, Projector, PPE,

	experience package: itinerary, duration, inclusions, exclusions, conservation story and differentiation. 1.3 Describe how to apply the tourist experience design framework to a wildlife tourism product: anticipation, travel, on-site, return and reflection stages. 1.4 Explain how to price a wildlife tourism package using cost-plus pricing, competitive pricing and value-based pricing. 1.5 Describe how to develop a portfolio of wildlife tourism products suited to Nigerian	• Discuss wildlife tourism package pricing using all three pricing methods. • Discuss wildlife tourism product portfolio development for a Nigerian ecotourism destination.		site, return and reflection. • Price one wildlife tourism package using all three pricing methods • Record cost-plus calculation, competitive price benchmark, value-based price rationale and recommended final price. • Develop a four-product wildlife tourism portfolio for one Nigerian ecotourism destination • Record each product, target segment, duration, price range and differentiation from competitors. • Research the product portfolio of one successful African wildlife tourism destination • Record products offered, target segments, pricing tiers and two product	product; record how the enterprise enhances each of the five stages: anticipation, travel, on-site, return and reflection. • Price one wildlife tourism package using all three pricing methods; record cost-plus calculation, competitive price benchmark, value-based price rationale and recommended final price. • Develop a four-product wildlife tourism portfolio for one Nigerian ecotourism destination; record each product, target segment, duration, price range and differentiation from competitors.	Field notebooks.
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	ecotourism destinations across different visitor.			innovations applicable to Nigerian destinations.	Research the product portfolio of one successful African wildlife tourism destination; record products offered, target segments, pricing tiers and two product innovations applicable to Nigerian destinations	
General Objective 2.0: Apply wildlife destination branding and positioning						
4-6	2.1 Describe destination branding principles: brand identity, brand values, brand personality and conservation differentiation for wildlife tourism destinations. 2.2 Explain how to develop a brand strategy for a Nigerian wildlife tourism	- Discuss destination branding principles: brand identity, brand values, brand personality and conservation differentiation for wildlife tourism destinations. - Discuss how to develop a brand strategy for a Nigerian wildlife tourism destination: positioning statement, target	Brand strategy template, Visual brand identity design guide, Destination positioning map template, Brand messaging guide template, Brand reputation management protocol template, Projector, etc.	- Develop a brand strategy for one Nigerian wildlife tourism destination. - Record positioning statement, target audience, three key messages, brand promise and conservation differentiation. - Design a visual brand identity concept for one wildlife tourism enterprise - Record logo concept,	Guide students to; - Develop a brand strategy for one Nigerian wildlife tourism destination; record positioning statement, target audience, three key messages, brand promise and conservation differentiation. - Design a visual brand identity concept for one	Brand strategy template, Visual brand identity design guide, Destination positioning map template, Brand messaging guide template, Brand reputation management protocol template, Projector,

	destination: positioning statement, target audience, key messages and brand promise. 2.3 Describe how to design a visual brand identity for a wildlife tourism enterprise: logo, color palette, typography, photography style and brand guidelines. 2.4 Explain how to position a Nigerian wildlife tourism destination against competing destinations in Africa and internationally. 2.5 Describe how to manage brand reputation for a wildlife tourism enterprise: review management, crisis	audience, key messages and brand promise. • Discuss how to design a visual brand identity for a wildlife tourism enterprise: logo, colour palette, typography, photography style and brand guidelines. • Discuss how to position a Nigerian wildlife tourism destination against competing destinations in Africa and internationally. • Discuss how to manage brand reputation for a wildlife tourism enterprise: review management, crisis communication and consistent brand expression across channels.		primary colour palette with hex codes, typography choices, photography style notes and three brand guideline rules. • Create a destination positioning map for one Nigerian wildlife destination against three competitor destinations • Record each destination, its positioning on two axes, competitive gaps and one repositioning opportunity. • Develop a brand messaging guide for one wildlife tourism enterprise • Record brand voice, five key messages, tagline, one social media bio and one email signature example. • Design a brand reputation	wildlife tourism enterprise; record logo concept, primary color palette with hex codes, typography choices, photography style notes and three brand guideline rules. • Create a destination positioning map for one Nigerian wildlife destination against three competitor destinations; record each destination, its positioning on two axes, competitive gaps and one repositioning opportunity. • Develop a brand messaging guide for one wildlife tourism enterprise; record brand voice, five key	PPE, Field notebooks.
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	communication and consistent brand expression across channels.			management protocol for one wildlife tourism enterprise. Record review monitoring schedule, response templates for positive and negative reviews, escalation procedure and reputation KPI	messages, tagline, one social media bio and one email signature example. Design a brand reputation management protocol for one wildlife tourism enterprise; record review monitoring schedule, response templates for positive and negative reviews, escalation procedure and reputation KPI,	
General Objective 3.0: know digital marketing strategy for wildlife tourism enterprises						
5 – 6	3.1 Explain the digital marketing ecosystem for wildlife tourism: website, SEO, email marketing, social media, online travel agents and paid advertising. 3.2 Explain how to develop a digital	- Discuss the digital marketing ecosystem for wildlife tourism with website, SEO, social media and OTA channel examples. - Demonstrate digital marketing strategy development for one wildlife tourism enterprise. - Discuss wildlife	Wildlife tourism digital marketing ecosystem guide, Digital marketing strategy template, Wildlife tourism SEO guide, email marketing guide, Paid digital advertising planning guide,	- Develop a digital marketing strategy for one wildlife tourism enterprise; record goal, target audience, three priority channels, content plan summary, monthly budget allocation and one KPI per channel. - Conduct SEO keyword research for one	Guide students to: Develop a digital marketing strategy for one wildlife tourism enterprise; record goal, target audience, three priority channels, content plan summary, monthly budget allocation and one KPI per	Digital marketing strategy template, SEO keyword research tool, email marketing sequence template, Google Ads campaign design guide,

	marketing strategy for a wildlife tourism enterprise: goals, target audience, channels, content plan and budget. 3.3 Describe how to optimize a wildlife tourism website for search engines: keyword research, on-page SEO, meta descriptions and local SEO. 3.4 Explain how to build and manage an email marketing list for a wildlife tourism enterprise: list building, segmentation campaign design and automation. 3.5 Explain how to plan and manage paid digital advertising for wildlife tourism: Google Ads, Meta Ads and	tourism website SEO optimization with keyword, on-page and local SEO examples. • Discuss email marketing list building, segmentation and campaign design for one wildlife tourism enterprise. • Discuss paid digital advertising planning for one wildlife tourism enterprise using Google Ads and Meta Ads.	laptop computers, projector, etc.	wildlife tourism destination; record ten target keywords, monthly search volume, competition level, current ranking and recommended content topic for each keyword. • Design a three-email welcome sequence for new subscribers to one wildlife tourism enterprise email list • Record subject line, preview text, email content, call to action and expected conversion action for each email. • Design a Google Ads search campaign for one wildlife tourism enterprise • Record campaign objective, three ad groups, five keywords per ad group, one ad copy per ad group and daily budget. • Audit the digital marketing presence of one Nigerian wildlife	channel. • Conduct SEO keyword research for one wildlife tourism destination; record ten target keywords, monthly search volume, competition level, current ranking and recommended content topic for each keyword. • Design a three-email welcome sequence for new subscribers to one wildlife tourism enterprise email list; record subject line, preview text, email content, call to action and expected conversion action for each email. • Design a Google Ads search campaign for one wildlife tourism enterprise; record campaign objective,	Digital marketing audit template, Laptop computers, Projector, PPE, Field notebooks.
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	programmatic display targeting wildlife tourist audiences.			tourism enterprise; record website, SEO score, social media channels, email marketing use, paid advertising and three priority improvements.	three ad groups, five keywords per ad group, one ad copy per ad group and daily budget. • Audit the digital marketing presence of one Nigerian wildlife tourism enterprise; record website, SEO score, social media channels, email marketing use, paid advertising and three priority improvements.	
General Objective 4.0: Apply social media content creation and community management;						
7 – 9	4.1 Describe social media platforms relevant to wildlife tourism marketing: Instagram, Facebook, YouTube, TikTok, X and LinkedIn — audiences, content formats and algorithm considerations.	• Discuss social media platforms for wildlife tourism with audience, content format and algorithm examples for each platform. • Discuss social media content calendar development for one wildlife tourism enterprise. • Discuss high-quality	Wildlife tourism social media platform guide, Social media content calendar template, Wildlife photography and video content guide, Wildlife storytelling caption guide,	• Develop a four-week social media content calendar for one wildlife tourism enterprise • Record each post date, platform, content theme, format, caption summary, hashtags and conservation message. • Create five wildlife photography images using a smartphone at	Guide students to: • Develop a four-week social media content calendar for one wildlife tourism enterprise; record each post date, platform, content theme, format, caption summary, hashtags and conservation message.	Social media content calendar template, Smartphones, wildlife photography and video content guide, Wildlife storytelling caption guide, Social media community

	4.2 Explain how to develop a social media content calendar for a wildlife tourism enterprise: content themes, formats, posting frequency and campaign integration. 4.3 Describe how to create high-quality wildlife photography and short-form video content for social media using a smartphone. 4.4 Explain how to write compelling social media captions that combine wildlife storytelling with a conservation call to action. 4.5 Describe how to manage a wildlife tourism social media community: responding to	wildlife photography and short-form video content creation using a smartphone. • Discuss compelling wildlife storytelling caption writing with conservation call to action examples. • Discuss wildlife tourism social media community management with response and engagement examples.	Social media community management guide, Smartphones, projector, etc.	one field site • Record each image, species or subject, composition technique used, caption written and one improvement noted. • Create two short-form wildlife video clips of 30 to 60 seconds each; record subject, filming technique, audio, caption, conservation message and one platform to post each clip. • Write five social media captions for one wildlife tourism enterprise • Record platform, content described, storytelling hook, conservation call to action and target audience emotion for each caption. • Respond to five simulated social media comments including one complaint and one influencer enquiry	• Create five wildlife photography images using a smartphone at one field site; record each image, species or subject, composition technique used, caption written and one improvement noted. • Create two short-form wildlife video clips of 30 to 60 seconds each; record subject, filming technique, audio, caption, conservation message and one platform to post each clip. • Write five social media captions for one wildlife tourism enterprise; record platform, content described, storytelling hook, conservation call to action and target	management role-play scenarios, Projector, PPE, Field notebooks.
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	comments, managing complaints, engaging influencers and building follower loyalty.			Record comment, response written, tone used, resolution or action taken and response time.	audience emotion for each caption. Respond to five simulated social media comments including one complaint and one influencer enquiry; record comment, response written, tone used, resolution or action taken and response time.	
General Objective 5.0: Apply online distribution, booking systems and revenue management						
10 – 12	5.1 Explain online distribution channels for wildlife tourism: direct website booking, OTAs such as Booking.com and Expedia, safari specialists, travel agents and GDS systems. 5.2 Explain how to set up and manage a wildlife tourism enterprise on an	- Discuss wildlife tourism online distribution channels with direct, OTA, specialist and GDS examples. - Discuss wildlife tourism enterprise setup and management on one OTA platform. - Discuss channel management system implementation for multi-platform availability	Wildlife tourism online distribution channels guide, OTA platform setup guide, Channel management system guide, Yield management and dynamic pricing guide, Revenue management plan template,	- Map the online distribution channel mix for one wildlife tourism enterprise - Record each channel, commission rate, booking volume percentage, strengths and one optimization action. - Set up a simulated wildlife tourism property listing on one OTA platform; record property name, room types, rates,	Guide students to: - Map the online distribution channel mix for one wildlife tourism enterprise; record each channel, commission rate, booking volume percentage, strengths and one optimization action. - Set up a simulated wildlife tourism	Wildlife tourism online distribution channel guide, OTA platform simulation or guide, Seasonal pricing calendar template, Dynamic pricing rule design template, Revenue management plan template,

	online travel agent platform. 5.3 Explain how to implement a channel management system to distribute availability across multiple booking platforms simultaneously. 5.4 Explain yield management and dynamic pricing for wildlife tourism: seasonal pricing, last-minute rates, early bird discounts and length-of-stay rules. 5.5 Discuss how to develop a revenue management plan for a wildlife tourism lodge or camp: rate strategy, booking windows, overbooking policy and	distribution. • Discuss yield management and dynamic pricing for a wildlife tourism lodge or camp. • Demonstrate revenue management plan development for a wildlife tourism lodge or camp.	Laptop computers, projector, etc.	availability, photos used, description written and three amenities highlighted. • Design a seasonal pricing calendar for one wildlife tourism lodge. • Record each season, date range, base rate, peak loading, low season discount and one revenue rationale for each pricing decision. • Design a dynamic pricing rule set for one wildlife tourism enterprise • Record five pricing trigger conditions, rule applied, rate adjustment and expected revenue impact for each rule. • Develop a revenue management plan for one wildlife tourism lodg. • Record rate strategy, booking window policy, overbooking policy, revenue KPIs, monitoring frequency	property listing on one OTA platform; record property name, room types, rates, availability, photos used, description written and three amenities highlighted. • Design a seasonal pricing calendar for one wildlife tourism lodge; record each season, date range, base rate, peak loading, low season discount and one revenue rationale for each pricing decision. • Design a dynamic pricing rule set for one wildlife tourism enterprise; record five pricing trigger conditions, rule applied, rate adjustment and expected revenue impact for each	laptop computers, Projector, PPE, Field notebooks.
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	revenue KPIs.			and one revenue optimization target.	Develop a revenue management plan for one wildlife tourism lodge; record rate strategy, booking window policy, overbooking policy, revenue KPIs, monitoring frequency and one revenue optimization target.	
GENERAL OBJECTIVE:6.0 Apply tourism marketing performance measurement and optimization						
13 – 15	6.1 Explain digital marketing analytics tools for wildlife tourism: Google Analytics, Meta Business Suite, email platform analytics and booking system reports. 6.2 Explain how to define and track wildlife tourism marketing KPIs: website traffic,	- Discuss digital marketing analytics tools for wildlife tourism: Google Analytics, Meta Business Suite, email platform analytics and booking system reports. - Discuss how to define and track wildlife tourism marketing KPIs: website traffic, conversion rate, cost per acquisition, return	Digital marketing analytics tools guide, Wildlife tourism marketing KPI framework, Digital marketing performance data interpretation guide, Monthly digital marketing performance report template, A/B testing	- Design a marketing KPI framework for one wildlife tourism enterprise; record each KPI, definition, measurement tool, reporting frequency, current baseline and six-month target. - Analyse one month of simulated digital marketing data for one wildlife tourism enterprise; record traffic by channel,	Guide students to: - Design a marketing KPI framework for one wildlife tourism enterprise; record each KPI, definition, measurement tool, reporting frequency, current baseline and six-month target. - Analyse one month of	Wildlife tourism marketing KPI framework template, Simulated digital marketing dataset, Monthly digital marketing performance report template, A/B testing design template, Laptop computers,

	conversion rate, cost per acquisition, return on ad spend and social media engagement rate. 6.3 Explain how to interpret digital marketing performance data and identify optimization opportunities for a wildlife tourism enterprise. 6.4 Explain how to prepare a monthly digital marketing performance report for wildlife tourism enterprise management. 6.5 Describe how to use A/B testing to optimize wildlife tourism marketing content, ads and landing pages.	on ad spend and social media engagement rate. • Discuss how to interpret digital marketing performance data and identify optimization opportunities for a wildlife tourism enterprise. • Discuss how to prepare a monthly digital marketing performance report for wildlife tourism enterprise management. • Discuss how to use A/B testing to optimize wildlife tourism marketing content, ads and landing pages.	guide, Laptop computers, Projector, etc.	conversion rate, top content, cost per acquisition and two optimization actions. • Prepare a monthly digital marketing performance report for one wildlife tourism enterprise; record all KPIs, performance against target, top three achievements, two underperforming areas and three recommended actions for next month. • Design an A/B test for one wildlife tourism social media advertisement; record hypothesis, variable tested, control version, test version, success metric and minimum test duration. • Present digital marketing performance and strategy recommendations to a simulated enterprise management team; respond to three management questions	simulated digital marketing data for one wildlife tourism enterprise; record traffic by channel, conversion rate, top content, cost per acquisition and two optimization actions. • Prepare a monthly digital marketing performance report for one wildlife tourism enterprise; record all KPIs, performance against target, top three achievements, two underperforming areas and three recommended actions for next month. • Design an A/B test for one wildlife tourism social media advertisement; record hypothesis,	Projector, PPE, Field notebooks.
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				and record one strategy revision based on feedback.	variable tested, control version, test version, success metric and minimum test duration. • Present digital marketing performance and strategy recommendations to a simulated enterprise management team; respond to three management questions and record one strategy revision based on feedback.	
COURSE ASSESSMENT Course Work: 10% Tests: 10% Practical 40% Examination 40% Total: 100%						

LIST OF MINIMUM PHYSICAL FACILITIES AND RESOURCES

1. Wildlife Field Practice (Camping) Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Binoculars	150
2	Spotting Scopes	50
3	GPS Units	100
4	Compasses	150
5	Topographic Maps	100
6	Range Finders	50
7	Measuring Tapes	100
8	Field Notebooks	100
9	Clipboards	100
10	PPE Kits	100 Sets
11	First Aid Kits	20
12	Camping Tents	50
13	Sleeping Bags	100
14	Walkie-Talkies	50
15	Satellite Phones	10
16	Power Banks	50
17	Solar Charging Kits	20
18	4WD Field Vehicle	4

2. Wildlife Ecology and Habitat Management Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Quadrats	50
2	Vegetation Sampling Frames	50
3	Soil Augers	50

4	Soil Moisture Meters	20
5	Clinometers	20
6	Forestry Calipers	50
7	Increment Borers	50
8	DBH Tapes	100
9	Altimeters	50
10	Tree Tagging Kits	100 Sets
11	Survey Pegs	200
12	Flagging Tapes	100 Rolls

3. Plant Taxonomy and Herbarium Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Plant Presses	50
2	Herbarium Cabinets	10
3	Hand Lenses	100
4	Plant Identification Keys	150
5	Specimen Bottles	500
6	Mounting Papers	500 Sheets
7	Labels and Tags	500
8	Seed Bank Storage Units	20
9	Drying Racks	20
10	Herbarium Room	1

4. Zoology, Anatomy and Wildlife Health Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Compound Microscopes	50
2	Prepared Slides	100

3	Dissecting Kits	50
4	Skeleton Models	20
5	Anatomical Models	20
6	Specimen Bottles	100
7	Refrigerators	2
8	Deep Freezers	2
9	Incubators	2
10	Autoclave	1
11	Laboratory Fume Hood	1
12	Wildlife Health Laboratory	1

5. Ornithology Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Bird Field Guides	100
2	Binoculars	150
3	Spotting Scopes	50
4	Bird Mist Nets	50
5	GPS Units	50
6	Cameras	20
7	Camera Traps	10
8	Bird Charts	200

6. Wildlife Survey and Monitoring Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Camera Traps	10
2	Cage Traps	10
3	Sherman Traps	20

4	Butterfly Nets	20
5	Sweep Nets	20
6	Aquatic Sampling Nets	10
7	Fish Sampling Tubs	10
8	GPS Units	10
9	Digital Cameras	10
10	Range Finders	5

7. Meteorological Station (Climate Change and Environmental Monitoring Unit)

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Weather Station	1
2	Rain Gauges	5
3	Thermometers	20
4	Hygrometers	10
5	Anemometers	5
6	Lux Meters	5
7	Soil Moisture Meters	5
8	Portable Weather Meters	5

8. GIS, Remote Sensing and Drone Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Desktop Computers	20
2	GIS Workstations	10
3	Drones (UAVs)	2
4	Remote Sensing Software	10 Licenses
5	GIS Software	20 Licenses

6	Plotter Machine	1
7	Printers	2
8	Scanners	2
9	Tablets	15
10	Multimedia Projectors	3
11	GIS Laboratory	1

9. Conservation Genetics and Forensic Science Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Conservation Genetics Kit	1 Set
2	Analytical Balance	1
3	Refrigerators	1
4	Deep Freezers	1
5	Microscopes	5
6	Preservation Tanks	5
7	Laboratory Glassware	10 Sets

10. Apiculture and Pollinator Conservation Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Beehives	10
2	Bee Suits	10
3	Honey Extractors	2
4	Smokers	10
5	Hive Tools	10
6	Apiary Unit	1

11. Park Planning, Ecotourism and Interpretation Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Public Address Systems	2
2	Digital Cameras	10
3	Video Cameras	5
4	Projector Screens	3
5	Multimedia Projectors	3
6	Smart Interactive Board	1
7	Tourism Maps	30
8	Interpretation Centre	1

12. Zoo and Museum Management Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Museum Display Cases	5
2	Museum Cabinets	5
3	Taxidermy Kits	5
4	Wildlife Specimens	100
5	Animal Handling Equipment	2 Sets
6	Wildlife Museum	1
7	Sanctuaries	1
8	Animal domestication unit	1
9	Game Reserve	1

13. Nursery, NTFP and Habitat Restoration Unit

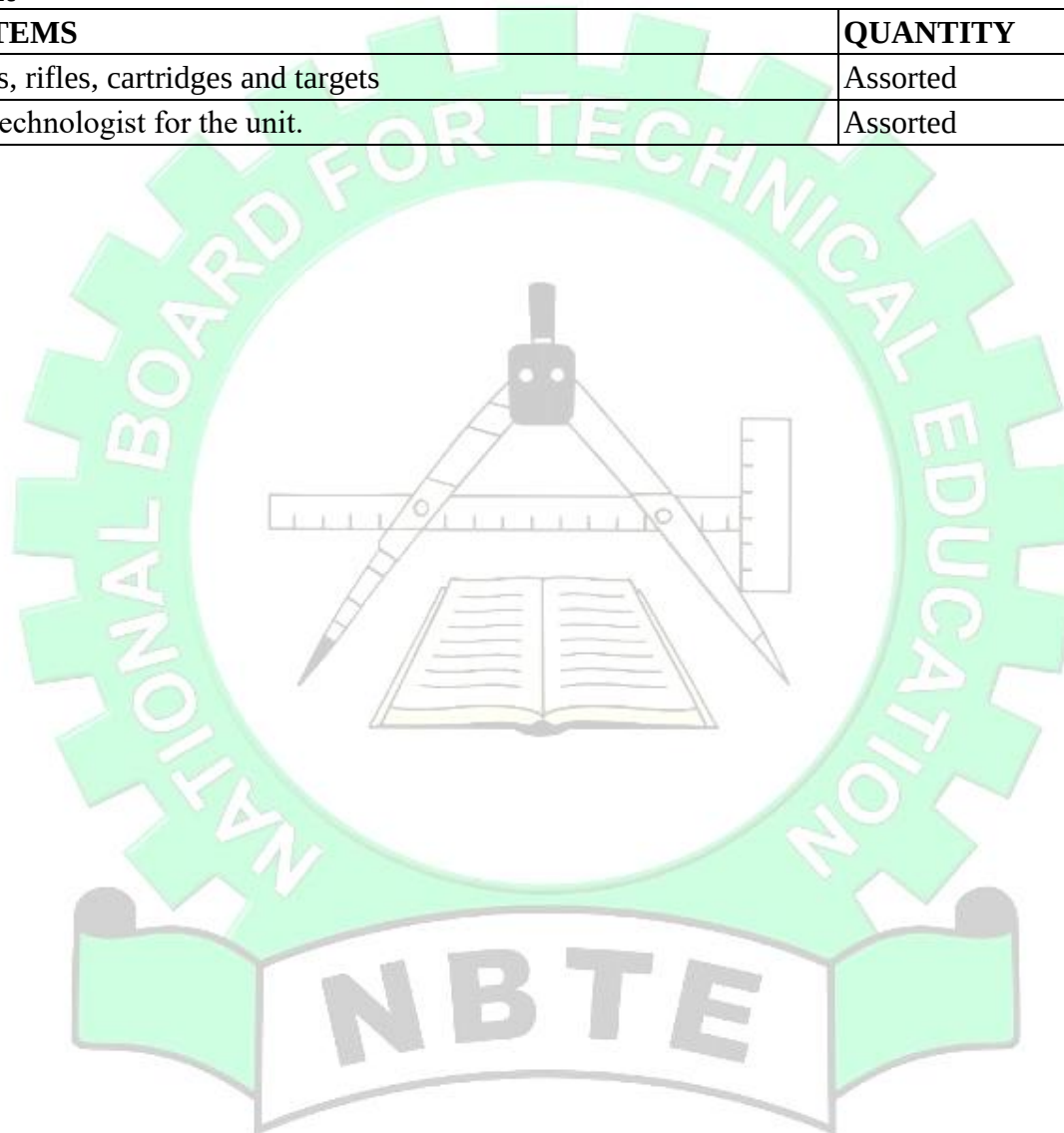
S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Seedling Trays	100
2	Watering Cans	15
3	Wheelbarrows	10
4	Hoes	20
5	Cutlasses	20
6	Rakes	10
7	Shovels	10
8	Secateurs	20
9	Nursery Shade Nets	5
10	Plant Nursery Unit	1

14. Wildlife Protection, Fire and Pest Management Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1.	Fire Beaters	10
2.	Fire Extinguishers	20
3.	Firefighting trunks (four wheel drive)	
4.	Water bowsers	
5.	Knapsack Sprayers	10
6.	Brush Cutters	5
7.	Chainsaws	2
8.	Fire protection clothes (PPE Kits)	30 Sets
9.	Two-Way Radios	10

15. Ballistics and weaponry Unit

S/N	DESCRIPTION OF ITEMS	QUANTITY
1	Different classes of guns, rifles, cartridges and targets	Assorted
2	License's personnel as technologist for the unit.	Assorted



LIST OF WORKSHOP PARTICIPANTS

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