

USMANU DANFODIYO UNIVERSITY SOKOTO

Department of Zoology Faculty of Chemical and Life Sciences

UNDERGRADUATE STUDENTS' HANDBOOK

2024

ACKNOWLEDGEMENTS

The efforts of all staff and University Management to ensure the success of this revised students' handbook for the benefit of both staff and students particularly fresh students of the Department were gratefully acknowledged.



Prof. H. M. Bandiya Head of Department

GOODWILL MESSAGE FROM THE HEAD OF ZOOLOGY DEPARTMENT

It is my honor and pleasure to welcome you to the Department of Zoology, Faculty of Chemical and Life Sciences, Usmanu Danfodiyo University, Sokoto. This maiden edition Students' Handbook for the Department of Zoology provides an opportunity for the students to have an access to the required information about the Department.

This handbook is an important guide to the students because it contains vital information about the B. Sc. Zoology Programme which started since the establishment of the Department of Biological Sciences in 1977. The information includes the philosophy and objectives of the programme, admission and graduation requirements, registration procedures, course structure and description, examinations conduct, etc. The handbook also provides guidance on writing research project. For additional guidance, counseling and clarification, the students are advised to contact the Level Coordinators, Course Coordinators, Registration Officers, Examination Officer or Head of Department.

The B. Sc. Zoology programme is designed to produce competent Zoologists with broad based knowledge of animal kingdom, and those who can meet the current and future needs of the Nigerian society in accordance with the global practices. The syllabi emphasize both theoretical and applied aspects of Zoology with courses such as Entomology, Parasitology, Hydrobiology and Fisheries, etc. The academic content of the programme is always in line with National Universities Commission's approved standard. This will instill in students a sense of enthusiasm for Zoology, an appreciation of its application in different context and involve them in an intellectual stimulating and satisfying experience of learning and studying.

The Department is committed to ensuring high academic quality and institutional discipline. Our staff are therefore, committed, discipline, vibrant, hardworking, dedicated and have passion for fairness, firmness and thoroughness as well as have reputation for producing high quality graduates in both character and learning.

You are expected to always show maturity, understanding, tolerance and brotherhood spirit with everybody in the University throughout the period of your stay in the University. You must always ensure that you abide by the rules and regulations of the University.

Finally, I pray to almighty Allah to guide and assist us all. Once again you are welcome to the Department of Zoology.

Thank you.

Prof. H. M. Bandiya Head of Zoology Department

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ABOUT THE UNIVERSITY

The Usmanu Danfodiyo University (formally University of Sokoto) was established in September, 1975 by the Federal Government of Nigeria. The University started on a temporary site (now called City Campus), along Sultan Abubakar Road, Sokoto. Two years after, exactly on 20th October, 1977, classes started with an intake of ninety-three (93) students for the degree of Bachelor of Science, Arts and Science / Arts Education. The academic staff strength then was thirty-three.

The following year precisely in January, 1978, one hundred and two (102) students enrolled for a two years Pre-Degree Programme in humanities and Sciences. The University formally graduated a total of seventy (70) students during its first convocation held on 22nd November, 1980. The University is made up of the academic and administrative/service units. The academic units consist of Eleven (12) Faculties (which have seventy departments), a Postgraduate School, a Division of General Studies, and six Research Centres. The Faculties are:

- 1. Faculty of Agriculture, which has seven (7) departments
- 2. Faculty of Arabic and Islamic studies with two (2) departments
- 3. Faculty of Art with five (5) departments
- 4. Faculty of Allied Health Science with five (5) departments
- 5. College of Health Sciences with twenty four (24) departments
- 6. Faculty of Chemical and Life Sciences with seven (7) departments
- 7. Faculty of Education & Extension Services with five (5) departments
- 8. Faculty of Engineering and Environmental Sciences with five (5) departments
- 9. Faculty of Law, which consists of three (3) departments
- 10. Faculty of Management Sciences, which has three (3) departments
- 11. Faculty of Pharmaceutical Sciences, which has five (5) departments
- 12. Faculty of Physical and Computing Sciences with five (5) departments
- 13. Faculty of Social Sciences with four (4) departments
- 14. Faculty of Veterinary Medicine with ten (10) departments
- 15. Faculty of Medical Laboratory Science which has five (5) departments
- 16. Faculty of Pharmaceutical Sciences which has five (5) departments

The six (6) Research Centres are:

- 1. Centre for Islamic Studies;
- 2. CibiyarNazarin Hausa (Centre for Hausa Studies)
- 3. Sokoto Energy Research Centre
- 4. Centre for Energy and Environment
- 5. Centre for Agriculture and Pastoral Research
- 6. Centre for Peace Studies
- 7. Centre for Advance Medical Research and Training
- 8. Centre for Advanced Science Research and Analytical Services
- 9. TETFUND Centre of Excellence in Urology and Nephrology
- 10. Leadership Accounting Development and Networking Centre

- 11. Centre for Entrepreneurship Development
- 12. Centre for Open and Distance Education
- 13. Directorate of Affliate and Part-Time Programmes

The Administrative/Service units are;

- 1. Office of the Vice-Chancellor
- 2. The Registry
- 3. The Bursary
- 4. The Library
- 5. Department of Physical Planning and Maintenance
- 6. Students' Affairs Division
- 7. University Health Services

The University moved most of its Faculties and service Departments to the main campus in 1982. The City Campus houses the Faculty of Veterinary Medicine and the College of Health Sciences, Centre for Islamic Studies, Cibiyar Nazarin Hausa and a few service units. The University also has a Guest Inn which runs on commercial basis and is located at Mabera Layout, Sokoto.

VISION

"To be a Centre of excellence in terms of teaching, research and community service in all fields of human endeavors i.e. Arts, Humanities, Environmental Science, Pure and Applied Sciences"

MISSION

"To provide quality teaching, research and community services to deserving persons under peaceful atmosphere and in line with the national policies on education, irrespective of social class, gender, race, ethnicity, nationality and religious differences, at the same time to ensure at all times it serves as a centre for pursuit of research and academic excellence"

VISITOR AND PRINCIPAL OFFICERS OF THE UNIVERSITY

Visitor

President, Commander-in-Chief of the Armed Forces of the Federal Republic of Nigeria

Chancellor

Pro Chancellor and Chairman of Council

Vice Chancellor

Deputy Vice Chancellor (Academic)

Deputy Vice Chancellor (Administration)

Registrar

Mal. NuruddeenBelko B. A. (UNISOK), MNIM

Bursar

University Librarian Dr. A.K. Nuhu B. A. (BUK), M. Sc. (ABU), Ph. D. (UDUS)

BRIEF HISTORY OF DEPARTMENT OF ZOOLOGY

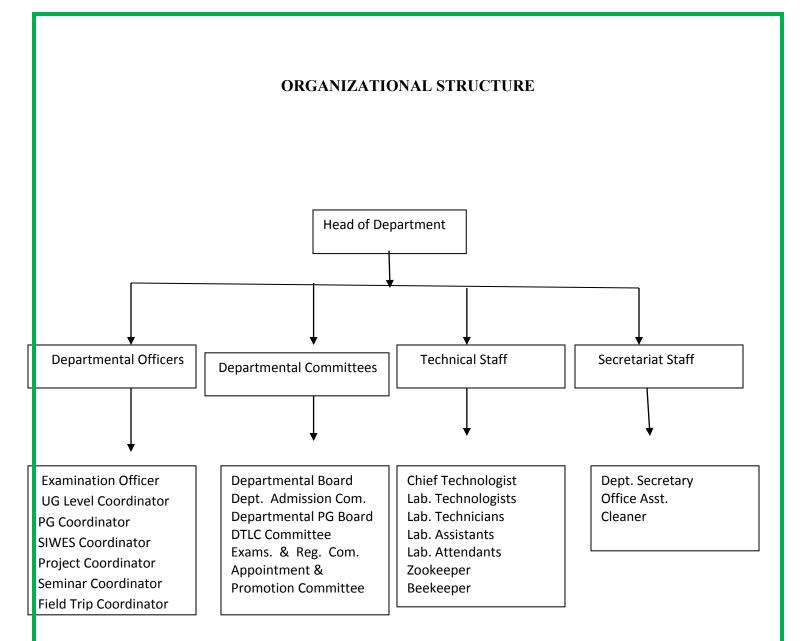
The Department of Biological Sciences is one of the four foundation departments of the Faculty of Science, which was established in 1977comprising of two Units namely; Botany and Zoology. In 1989 and 1990 additional units of Microbiology and Biology were added respectively. The four Units offer courses for BSc. Honors in Botany, Zoology, Microbiology and Biology. The department also caters for the needs of BSc. Education, BSc. Agriculture, M.B.B.S. and D.V.M. students. However, Microbiology unit was curved out and upgraded to a full department in 2008.

The Zoology programme had initially three years tenure for the award of BSc. (Hons.) Degree in Zoology, but was later changed to four years. The first batch of undergraduate students from the programme graduated in 1980 and continued to date, except for the 1994/95 session which was lost due to the industrial action embarks by the Academic staff Union of Universities.

The programme trains students in Entomology, Parasitology, Hydrobiology and Fisheries. The NUC minimum Academic Standard was introduced in 1992/93 session, which started at UG I level and continued up to UG IV in the subsequent years. Presently, Zoology Unit is running undergraduate programme based on the Minimum Academic Standard with some additional courses relevant to the area. The Unit also offers Postgraduate Programme in Zoology with specialization in Entomology, Parasitology, Hydrobiology and Fisheries leading to the award of Master of Science (M.Sc.) and Doctor of Philosophy (PhD) Degrees. However, the Department also offers Post Graduate Diploma in Biological Sciences (PGDBS) which gives candidates from other areas of specialization an opportunity to qualify for admission into Zoology Unit for M. Sc. programme.

In January, 2022 the Zoology Unit was upgraded to a full fledged department following the National Universities Commission's Approval for the splitting of the then Faculty of Science into Faculty of Chemical and Life Sciences and Faculty of Physical and Computing Sciences.

Presently, the Department of Zoology is running Undergraduate programme based on the minimum academic standards with some additional courses relevant to the area. The Department also offers Postgraduate programme in Zoology with specializations in Entomology, Parasitology, Hydrobiology and Fisheries leading to the award of Master of Science (M. Sc.) and Doctor of Philosophy (PhD) Degrees.



ACADEMIC PROGRAMME AND CURRICULUM FOR B.Sc. ZOOLOGY PROGRAMME

1.0 INTRODUCTION

The B.Sc. (Zoology) programme manned by the Department of Zoology (which started as a Unit under the Department of Biological Sciences), Usmanu Danfodiyo University, Sokoto is one of the foundations programmes in this University and was established and started since October 1977.

The programme provides basic training leading to the award of B. Sc. Honors in Zoology and caters for the needs of B. Sc. Biology, Botany, Education, M.B.B.S., D.V.M. and Agricultural Science students. Areas such as Entomology, Parasitology, Hydrobiology with emphasis on Ecology, Behavior, Morphology, Taxonomy, Physiology and Genetics are explored with a view to train adequate manpower to cater for current needs of the community Science Education, Environmental protection, Food Production, medical and paramedical sector.

2.0 PHILOSOPHY OF THE PROGRAMME

The Zoology programme provides basic training to the award of B.Sc. Honors in Zoology and caters for the needs of B.Sc. Biology, Botany, Chemistry, Mathematics, Education, Geology, MBBS, Pharmacy, Microbiology, Medical Laboratory Science, and Agricultural Science students. It is the scientific study of different kinds of animals, and of where and how they live. The programme has been designed to provide a sound understanding of the concepts and methodologies of Zoology in key areas that meet the needs of society. Knowledge acquired in this field can be used to facilitate the improvement on the quality of life of various types of animals in a given environment. The B.Sc. Zoology programme is thus designed to produce competent Zoologists with a broad based knowledge of the animal kingdom, and those who can meet the current and future needs of the Nigerian society in accordance with global practices. Accordingly, the syllabus emphasizes both theoretical and applied aspects of Zoology with courses such as Economic Entomology, Applied Entomology, Pest Control, Parasitology, Hydrobiology and Fisheries is given prominence.

3.0 OBJECTIVES OF THE PROGRAMME

The objectives of the programme are to:

i. Provide students with a broad foundation of knowledge and practical skills in zoology.

- ii. Develop in students' the ability to apply knowledge and skills to solving theoretical and practical problems in zoology.
- iii. Develop in students, a range of transferable skills that are of value in the areas of zoology and other related areas.
- iv. Provide students with knowledge and skills with which they can proceed to further studies in specialized areas of zoology or in other related multi-disciplinary areas.
- v. Instill in students a sense enthusiasm for zoology, an appreciation of its application in different contexts and to involve them in an intellectually stimulating and satisfying experience of learning and studying.

4.0 ADMISSION REQUIREMENTS

UME

The entry requirements shall be at least credit level passes in five subjects including English Language, Mathematics, to form the core subjects with credit in three other relevant science subjects; Biology, Chemistry and Physics at the Senior Secondary School Certificate or its equivalent. In addition, an acceptable pass in the University Matriculation Examination (UME) into 100-level is required.

Direct Entry

Candidates with two A level passes (graded A-E) at the Advanced Level in one or more relevant subjects (Biology, Botany, Chemistry, Mathematics and Physics) in addition to UME requirements mentioned above may be admitted into 200-level to undertake a three – year degree programme.

5.0 LEARNING OUTCOMES

All Bachelors of Science Honors degree student in Zoology are expected to develop the following abilities and skills:

a. Regime of Subject Knowledge - Cognitive abilities and skills relating to solution of problems in Zoology

b. Competencies and Skills - Practical skills relating to the conduct of Laboratory and Field work in Zoology

c. Behavioral Attitudes - General skills relating to non-subject specific competencies, communication, interpersonal and organization skills.

5.1ATTAINMENT LEVELS

Graduates of Zoology are expected to have the ability to apply knowledge and skills to solving theoretical and practical problems in Zoology in relation to national and societal needs.

5.2 RESOURCE REQUIREMENT FOR TEACHING AND LEARNING

- a) Academic and non-academic staff.
- b) Academic and Non-Academic Spaces
- c) Academic and Administrative Equipment
- d) Library and Information Resources

6.0TEACHING AND RESEARCH FACILITIES

The unit has general laboratories for undergraduate lectures and practicals in addition to many Research specific Laboratories. There is also a Zoological Garden for conducting field work/studies, Museum and Departmental library for assisting staff and students of all levels.

6.1 LABORATORIES

The Department has the following laboratories:

- 1. Zoology laboratory I
- 2. Zoology Laboratory II
- 3. Parasitology Laboratory I
- 4. Parasitology Laboratory II
- 5. Entomology Laboratory
- 6. Hydrobiology Laboratory
- 7. Museum

6.2 ZOOLOGICAL GARDEN

- 8. Micro Project Lab
- 9. Physiology Lab
- 10. Ecology Lab (Shared)
- 11. Honey Processing Room
- 12. Apiary
- 13. Taxonomy Lab (Shared)

The biological /zoological garden is jointly shared by the three departments. Currently rabbits and albino rats are reared for student research and practical. It contains well-designed Insectaria, Snakery and Rabbitry to rear respective animals. There is also a live crocodile kept in a pond.

6.3 Museum

Museum has a rich collection of well-preserved animal specimen of almost all Phyla along with the bones and skeleton of major group of animals. It has models of all those animals whose preserved specimens are not available.

6.4 DEPARTMENTAL LIBRARY

The Departmental library is jointly shared by students offering B.Sc. Biology, Botany and Zoology programmes. It is located within the Departmental building and contained Biology, Botany and Zoology textbooks and journals, and previous/past undergraduate projects, SIWES and seminar reports. Final year graduating students sometimes donates books to the library.

7.0 ATTENDANCE

Students are expected to promptly attend all lectures and practical scheduled for each course registered. The 75% minimum requirements attendance of the university shall strictly apply to students in B.Sc. Zoology programme.

8.0 SCHEDULE AND DESCRIPTION OF COURSES

List of Courses

List of Courses		
Course Code	Course Title	Credit Unit
<u>100 level</u>		
ZOO 101	Concept of Zoology	2
BIO 101	General Biology I	3
BIO 102	General Biology II	3
CHM 101	General Chemistry I	4
CHM 102	General Chemistry II	4
MAT 101	Elementary Mathematics I	3
MAT 103	Elementary Mathematics II	3
PHY 101	General Physics I	2
PHY 102	General Physic II	2
PHY 103	General Physics III	2
PHY 107	General Physics Lab. I	3
PHY 108	General Physics Lab. II	3
GST 101	Use of English	2
GST 102	Nigerian Peoples & Culture	2
GST 103	Information Communication Technology (ICT)	1
GST 104	Use of Library and Study Skills	1
GST 105/106	Comm. in French/ Comm. in Arabic	2
Total		42
200 Levels:		
BIO 201	Genetics I	2
BIO 202	Introductory Ecology	2
BIO 204	Biological Techniques	2
BOT 202	Seedless Plants(P.R. BIO 101)	2
CHM 211	Organic Chemistry II	2
BCH 201	General Biochemistry I	3
BCH 202	General Biochemistry II	3
ZOO 201	Invertebrate Zoology (P.R. BIO 102)	2
ZOO 203	Chordate Biology	3
ZOO 206	Biostatistics I	2
GST 211	Communication in English II	2
GST 212	LogicPhilosophy& Human Existence	2
GST 213	History & Philosophy of Science	2
GST 214	Peace & conflict Resolution	2
1		

	Electives: at least 4 units	
BIO 203	General Physiology	2
BIO 205		
BOT 203	Seed Plants	2
CHM 213	Analytic Chemistry	2
MCB 201	General Microbiology	3
Total		43
300 Level:		
BIO 301	Genetic	3
BIO 302	Field Course	1
BIO 311	Biostatistics II	3
ZOO 301	Protozoology	3
ZOO 302 Vertebrate Comp. Anatomy		3
ZOO 303 Animal Physiology (P.R. ZOO 203)		3
ZOO 304	Animal Behaviour	3
ZOO 305	Basic Entomology (P.R.ZOO 202)	3
ZOO 306	Animal Ecology	3
GST 311	Entrepreneurship	2
GST 312	Venture Creation and Growth	2
	Electives: Any 3 Units	
BIO 309	Introductory Nematology	3
MCB 302	Pathogenic bacteriology	3
ZOO 307	Evolution of Chordates	3
ZOO 399	Pest control/Biology of Agric and Environmental Pollution	3
Total		41

400 Level:		
BIO 407	Hydrobiology	3
BIO 408	Fisheries Aquaculture	3
BIO 409	Population Ecology	2
BIO 410	Conservation & Dev. of Natural Resources	2
BIO 413	Field Course II	2
ZOO 402	Applied Entomology (P.R. ZOO 305)	3
ZOO 403	Parasitology I (P.R. ZOO 301)	3
ZOO 404	Parasitology II	2
ZOO490	Seminar	1
ZOO 491	Industrial Field Experience (SIWES)	2
ZOO 499	Research Project	6
	Electives: Any 6 Units	
ZOO 405	Nigerian Animals	3
BIO 414	Molecular Biology	3
MCB 303	Immunology & Immunochemistry 3	
ZOO 406	Comparative Vertebrate Embryology	3
Total		35

8.2 COURSE DESCRIPTION

ZOO 101 CONCEPT OF ZOOLOGY

Meaning of Zoology, major disciplines in Zoology; Herpetology:Study of (Reptiles and Amphibians). Mammatology: Study of Mammals, Ichyology: Fish, Ornithology: Birds, Ethology: Animal Behavior, Protozology:Protozoan. Career Opportunities for Zoology Graduates.

BIO 101A GENERAL BIOLOGY I

Cell structure and organization, functions of cellular organelles, diversity, characteristics and classification of living things, general reproduction, interrelationship of organisms, heredity and evolution, ecosystem and types of habitat.

BIO 102A GENERAL BIOLOGY II

A generalized survey of plant and animal kingdoms.Study of plant cryptogams, seed plants and fungi based on their external morphology, physiology, reproduction and dispersal. Classes of invertebrate and vertebrate animals, their structure, functions and level of organization including nutrition, respiration, excretion, circulatory system and reproduction, differences in their external features, ecological adaptation of these forms

200 level

ZOO 201: LOWER INVERTEBRATES(2 Units) (L 15) (P 45)

Bottom line treatment of protozoa and metazoan groups.Classification and examples of Protozoa, Porifera, Cnidaria, Platyhelminthes, Nematoda.Studyof higher metazoans.Such as Annelids, Arthropods, Molluscs and Echinoderms.Economic importance of these Phyla.

ZOO 203: CHORDATES (3 Units) (L 30) (P 45)

Principles of animal classification.Linnaeus's contribution to taxonomy.Binomial nomenclature.Classification of vertebrates and detailed characteristics of each class.

ZOO 203: CHORDATES (3 Units) (L 30) (P 45)

300 level

ZOO 301: PROTOZOLOGY (3 Units) (L 30) (P 45)

Detailed classification of Phylum Protozoa. Biology of some selected members of each class, Sarcodina, Mastigophora, Ciliata, Sporozoa, Microspora. Evolution and Economic importance of Protozoan.

ZOO 302: VERTEBRATE COMPARATIVE ANATOMY (3 Units) (L 30) (P 45)

Functional comparative anatomy of various organ systems among different classes of vertebrates viz; Pisces, Amphibia, Reptilia, Aves and Mammalia.

ZOO 303: ANIMAL PHYSIOLOGY (3 Units) (L 30) (P 45)

The principles of physiological adaptation and homeostasis. Thermalreactions of animals, salt/water balance, excretion, respiration, neuromuscular physiology, type/classification of hormones and animal adaptation.

ZOO 304: ANIMAL BEHAVIOUR (3 Units) (L 30) (P 45)

Behaviour as a function of nervous complexity orientation.Learninginstinct.Feeding and defense behaviour patterns among animals.Territoriality and reproductive behaviour.

ZOO 305: BASIC ENTOMOLOGY 3 Units (L 30) (P 45)

Insect evolution, classification and distribution.Organization of external structure. Ingestion, Digestion, Excretion, Nervous System and Blood Circulation; Behaviour and Ecology of Social Insects

ZOO 306 ANIMAL ECOLOGY: 3 Units (L 30) (P 45)

Principles and concepts pertaining to ecology. Ecosystems and biogeochemical cycles. Limiting factors. Animal population and their properties. The ecology of local terrestrial and aquatic animals.

ZOO 307 EVOLUTION OF CHORDATES: 3 Units (L 30) (P 45)

Theories of organic evolution. Various evidences in support of evolution of chordates and vertebrates, such as; anatomical, physiological, pathological, embryological and genetical. Evolution of modern horse and man.

ZOO 399 PEST CONTROL: 3 Units (L 30) (P 45)

Pests and their categories, pesticides and their formulation.Classification of pesticides. Pest control procedures, such as; cultural, chemical, physical, mechanical and biological. The economics of pest control.Theadvantages and disadvantages of different pest control.

400 Level

ZOO 402 APPLIED ENTOMOLOGY: 2 Units (L 15) (P 45)

Principles of applied entomology.Insects and man. Biology, mode of injury, extent of damage and control of various insect pests (particularly in Nigeria) of agricultural crops, stored products pests, pest of farm animals, pests of public health importance, pests damaging forests, etc. Industrial entomology including Apiculture, Sericulture and Lac cultivation.Chemical and biological control of insect pests.

ZOO 403 PARASITOLOGY I: 3 Units (L 30) (P 45)

Detailed studies on the classification, morphology, life cycle, pathology and pathogenicity of selected parasites in the phyla protozoa, platyhelminths and arthropods. Their impotence to socio-economic position of man and other animals

Practical: Demonstrate skill in use of the microscope by finding parasites in various kinds of preparations and explaining what those parasites are, including life cycle stages.

ZOO 404 PARASITOLOGY II: 2 Units (L 15) (P 45)

Survey of animal parasites in vertebrate host, animal association, parasitic adaptation, Ecological niche; Host-parasite interaction; Host specificity; periodic phenomenon; transmission of parasites; effects of host migration on its parasitic population; evolution of parasites and parasitic diseases

Practical: Demonstrate skill in use of the microscope by finding parasites in various kinds of preparations and explaining what those parasites are, including life cycle stages.

ZOO 405 NIGERIAN ANIMALS: 3 Units (L 30) (P 45)

General survey of local molluscs, arthropods and vertebrates of economic and medical importance.

ZOO 406 COMPARATIVE VERTEBRATE EMBRYOLOGY: 3 Units (L30) (P 45)

Post zygotic development of the pig and chick, such as; cleavage, gastrulation,Organogenesis, transplantation of tissues, etc.

ZOO 490 SEMINAR: 1 unit (L 0) (P 0)

A seminar presentation based on a review of literature on a current issue of zoological importance.

ZOO 491 INDUSTRIAL FIELD EXPERIENCE: 2units (L 0) (P 0)

Students will be attached to some industrial organization/ laboratory for a period of 3 months during the long vocation in accordance with the Students Industrial Work Experience Scheme (SIWES) of Industrial Training Fund (ITF).

ZOO 499 PROJECT: 6 Units (L 0) (P 0)

Research project involving an investigation in Zoology and a written presentation and discussion of results.

9.0 EXAMINATION AND GRADUATION

9.1 CONDUCT OF EXAMINATIONS

- i. The University Senate reserves the power under the Act of establishing University and other subsequent amendments, to decide exclusively on all academic matters.
- ii. At the end of each semester or when applicable, examinations are conducted for courses taught in various departments. Such examinations may take the forms of written papers, oral examination, practical, clinical, submission and defense of written projects, etc. as approved by the University Senate.
- iii. The time-table for the examinations shall be fixed on various notice boards and website in the University stating time and venue of all examinations.
- iv. Students who have clashes in examinations based on the time-table should immediately complain to their Departmental/Faculty Examinations Officers.
- v. Students who fail to complain to appropriately to officers of the University on clashes in examinations shall blame themselves for any difficulty or eventuality that may arise.
- vi. Continuous assessment shall be included in determining the final score of candidates in the examination results.
- vii. Any student who absents him/herself from any examination without University approval and has not withdrawn from the course of study would be graded " \mathbf{F} " for such course(s) and the grade(s) would be reflected in the calculation of his/her GPA for the semester or session. Where there is an approval, such should be documented appropriately.
- viii. Subject to the approval of the Senate, the University may grant concessions to student(s) who could not complete or write all the examinations due to certified illness or other exigencies acceptable to the Senate. Where the Senate accepts any reason as genuine, it shall be at the pleasure of Senate to determine the nature of concession(s) to be so given.
- ix. The University may allow second semester registration in appropriate cases.
- x. Students who satisfy the requirements for examinations shall be issued with an examination card dully signed by an appropriate officer, which shall be presented to the invigilator in all examinations.
- xi. No student shall be allowed to enter the examination hall without the University identity card and examinations cards.
- xii. A candidate shall not be allowed to enter the examination venue if he/she is more than 30 minutes late. However, a candidate may be allowed entry only at the discretion of the invigilator in consultation with the Head of Department or the Faculty Examination Officer. Such cases shall be reported in writing by the invigilator to the Faculty Examination Officer.

- xiii. A candidate shall not be allowed to leave the examination venue within 45 minutes after the commencement of the examination, except under exceptional circumstances approved by the Head of Department or the Examinations Officer or the Invigilator.
- xiv. No candidate shall leave the examination venue during the last 15 minutes of the examination.
- xv. On entering the examination venue, it is the responsibility of the candidate to draw the attention of the invigilator to any paper or material on his/her seat, table or on the floor around him/her to ensure that such materials are removed before the commencement of the examination.
- xvi. A candidate who arrives late shall not be given any extra time.
- xvii. A candidate shall deposit any handbag, brief case, books, handouts, etc. outside the examination venue or in front of the invigilator before the commencement of the examination. A student coming into the examination hall with material(s) other than writing material(s) will be doing so at his/her own risk.
- xviii. A candidate shall comply with the instructions as set out on a question paper and answer booklet or other materials supplied.
- xix. Candidate(s) shall also comply with any lawful instruction(s) given by the invigilator.
- xx. A candidate shall only use the answer booklet or other materials provided by the invigilator. All rough works must be crossed out neatly.
- xxi. Rough works shall only be done on the answer booklet.
- xxii. Supplementary answer sheets or booklets, even if they contain only rough work, must be neatly packed into the answer booklet.
- xxiii. Under no circumstance shall a candidate write anything other than his/her admission number and name on the question paper.
- xxiv Where attention of the invigilator is required, hand should be raised to indicate the need. Absolute silence must be maintained.
- xxv There should be no writing on examination card and the question paper unless a student is asked to do so.
- xxvi Nursing mothers are not allowed to write examinations with their babies
- xxvii Female students wearing face covering (*Niqab*)are required to be appropriately identified before they are admitted into the Examination Hall and may be required later for identification.

9.2 WRITING OF EXAMINATIONS ON HOSPITAL BEDS

- i. A hospitalized student shall apply for permission to write examination on his/her hospital bed through his/her physician. The application should reach the Head of Department at least 7 days before the examination of the affected course (s).
- ii. The Head of Department shall, within 24 hours of receipt of the application, forward his recommendation to the Dean of his/her Faculty.
- iii. Subject to availability of facilities, the Dean approves the application and notifies the University Authority through the Registrar.
- iv. A copy of the approval shall be made available to the Chairman, Examinations Monitoring Committee, before the commencement of the examination for necessary action.
- v. The approval shall be communicated to the student at least 24 hours to the examination.
- vi. A minimum of N1, 000.00 and a maximum of N5, 000.00 shall be paid by the student, being expenses for the conduct of the examination per paper (a course).
- vii. Examination materials (question papers and scripts) for the student should leave the main examination hall within 2 minutes of commencement of the examination and should reach the hospital within 45 minutes of commencement.

9.3 GUIDELINES FOR RE- MARKING OF EXAMINATION SCRIPT(S)

- i. When a student applies for his/her scripts to be re-marked, Senate is to approve the assessor on the recommendation of the Vice-Chancellor.
- ii. The assessor should be paid an appropriate honorarium to be determined by Senate.
- iii. A student who wishes to apply for his/her paper (s) to be re-marked, should do so within one week of release of examination results by his/her Faculty.
- iv. A student should pay, in cash and in advance, the full expenses for the re-marking (to be estimated by Registry) before his/her script (s) is/are sent out. The payment should be done within one week of Senate's approval of the assessor.
- v. The verdict of the assessor, which would be reported to the Senate before being known to the student, will be final.
- vi. All such requests should be routed through the complainant's Faculty Board, which should, within two weeks of the receipt of the complaint, investigate and present to the Senate their findings and recommendation (s).

vi. If the complainant is however, not satisfied with the decision taken at this stage, he/she would then be free to apply for his/her script (s) to be remarked by another external assessor in accordance with the above guidelines.

9.4 Grading System

9.4.1 Grading System

D. CALCULATION OF GRADE POINT AVERAGE (GPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA) i. Letter grades and grade points are earned from percentage scores in the final examination in a given course as follows:

ii.	Percentage Score	Letter Grade	Grade Point
	70-100	А	5
	60-69	В	4
	50-59	С	3
	45-49	D	2
	40-44	E	1
	0-39	F	0

9.4.2 CALCULATION OF GRADE POINT AVERAGE (GPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA)

i. Letter grades and grade points are earned from percentage scores in the final examination in a given course as follows:

ii.	Percentage Score	Letter Grade Grade Point	
	70-100	А	5
	60-69	В	4
	50-59	С	3
	45-49	D	2
	0-44	F	0

GPA and CGPA are not calculated for DVM and MBBS programmes nor are these degrees classified at the end of the programme. For this reason, the minimum pass grade is a "C" for all courses and any score below fifty percent (50%) is graded "F".

- iii. The performance of a student in a semester is reported as (GPA), while the overall performance at the end of the session (and/or at any point in his/her study programme) will be reported as CGPA.
- iv. A weighed Grade Point (GP) is determined for the performance in each course by multiplying the grade point obtained by the credit unit of the course.
- v. Adding the weighed grade point obtained in all courses offered in that semester and dividing the sum by the total value of credit of all the courses, determines the GPA for the semester.
- vi. Cumulative Grade Point is calculated by adding the weighed grade points obtained in all courses offered up to the end of a given session (and/or up to a point in a student's programme or end of the programme) and dividing the sum by the total value of credits of all courses at that point.
- vii. To qualify for a Bachelor's degree, a student must obtain a minimum number of credit units for each level of study (core and elective courses) and the total units required for his/her programme as well as the credit units for General Studies courses.

9.5. CLASSIFICATION OF DEGREES

i. Degree classes will be designated with reference to Grade Point Average as follows:

4.50 - 5.00	First Class Honours
-------------	---------------------

- **3.50 4.49** Second Class Honours (Upper)
- **2.40 3.49** Second Class Honours (Lower)
- **1.50 2.39** Third Class Honours

0.00 – 1.49 Pass

ii. For classification of Diplomas and Certificates, students are advised to contact their respective Directors.

9.6. PROBATION, WITHDRAWAL AND INTER-FACULTY / PROGRAMME TRANSFER

- i. If a student's GPA falls below 1.00 during one session, he/she would be placed on probation (warning period) in the hope that the student will improve in the following session.
- ii. If in the following session, the student's GPA still falls below 1.00. he/she shall be withdrawn from the programme. However, if a student's GPA falls below 0.50 at the end of any session, he/she shall be withdrawn without any probation.

- iii. Students in DVM or MBBS programmes are not normally placed on probation. Therefore, students undergoing these programmes are advised to contact their Faculties/College on conditions that may lead to withdrawal because of poor academic performance.
- iv. A student so withdrawn for poor academic performance in one programme may be considered for another programme on application, provided he/she obtains a CGPA of not less than 0.75 at the end of the probation period. Application forms for such transfers are available in the Academic Secretary's Office upon payment of prevailing charges.

9.7 REGULATIONS GUIDING WITHDRAWAL FROM ACADEMIC PROGRAMMES

1. Voluntary Withdrawal

The University has no objection to any student withdrawing from any programme voluntarily. However, the University is not under any obligation to accept such student into any other programme. Nonetheless, only students from College of Health Sciences, Faculties of Agriculture, Law, Medical Laboratory Sciences, Pharmaceutical Sciences or Veterinary Medicine may be considered for transfer after he/she must have satisfied the following conditions:

- i. He/she must have spent two (2) academic sessions in the former Faculty
- ii. He/she must present a letter of consent from the sponsor
- iii. He/she must present written evidence of interaction with the student adviser, or the University Guidance and Counseling Officer;
- iv. He/she must present positive recommendation from Departmental and Faculty
- v. Boards attaching relevant minutes and other genuine evidences
- vi. Item ii-v must be obtained before the expiration of registration period to facilitate registration of the accepted student.

2. Withdrawal Due to Academic Incompetence

For any student withdrawn due to academic incompetence from the College of Health Sciences, Faculties of Agriculture, Law, Medical Laboratory Sciences, Pharmaceutical Sciences or Veterinary Medicine to be considered on transfer to another Faculty, the following conditions must be satisfied:

- i. At the end of the probationary period a student must have attained a CGPA of 0.75;
- ii. Transferring student must satisfy the entry requirements of accepting Department/Faculty;
- iii. Under no circumstance should a student be considered for transfer for more than once throughout the period of his/her studentship
- iv. Any student who fails to graduate after exhausting his/her maximum period of studentship will not be considered for transfer to any Faculty.

9.8 SPILL OVER

i. Students who are not able to graduate at the end of their approved period of study shall be allowed to carry over such courses into the following session. This period shall be referred to as "First Spill Over".

All grades scored in that session shall be fully credited to the student and scored class of degree awarded.

ii. Students who could not graduate at the end of the second spill over, would be withdrawn from the University. It should be noted that the period of study of any undergraduate student shall not exceed the normal period prescribed for the study by more than four semesters. Diploma students have only two additional semesters.

9.8.1 GRADUATING WITH AN 'F' GRADE IN A COURSE

- i. To graduate, the University expects students to pass all registered courses. However, in exceptional circumstances, they may apply to graduate with an "F" grade in an elective course irrespective of the session of registration of the course.
- ii. The application is made through the Head of Department and Faculty to the Chairman of Senate, provided the course is not a core course.
- iii. Such students are also expected to meet minimum requirements for graduation in terms of credit units at different levels.
- iv. For other conditions required for the consideration of such applications, students are advised to contact their Heads of Department.
- v. It should be noted that the provision is not a right but a privilege.

9.9 **REGULATIONS GOVERNING CONDUCT AND DISCIPLINE OF STUDENTS**

9.9.1 GENERAL CONDUCT

- i. Students are advised to take good care of their personal belongings. The University will not be responsible for any damage to, or loss of personal effects.
- ii. Any breach of peace or social nuisance within the University premises should be reported to the appropriate University authority (Porter, Caretaker, Matron, Hall Administrator, Security Division, etc.)
- iii. Absence from lectures, tutorials or practical classes requires the approval of the Heads of Department and the Deans concerned.
- iv. Students are prohibited to buy, sell, keep, and consume alcoholic drinks in the University premises. Any student caught contravening this provision shall be rusticated for two semesters/contact sessions and also be deboarded from the halls of residence throughout his/her stay in the University.

- v. Students are prohibited from consuming, keeping, selling or otherwise dealing in illicit drugs within the University premises. Students caught indulging in this act shall be rusticated for two semesters and handed over to the National Drug Law Enforcement Agency (NDLEA).
- vi. Students caught with firearms and or dangerous weapons within the premises of the University shall be expelled and handed over to the Police.
- vii. Students are responsible for the conduct of their visitors within the premises of the University.
- viii. Students and visitors are only allowed access into the campuses of the University after 10.00pm on proper identification.
- ix. Visitors to the female hostels are not allowed to be at the premises beyond 10.00pm.
- x. All unauthorized vehicles and their owners should vacate the premises of the halls of residence before 10.00pm.
- xi. Loitering around the halls of residence and shelterbelts beyond 10.00pm is not allowed. Students who violate this provision shall be disciplined accordingly (ranging from warning to rustication for one semester/contact session).
- xii. Under no circumstance should students receive visitors of opposite sex in their rooms. Violation of this provision shall lead to two-semesters/contact sessions rustication for the students and the lost of University accommodation throughout their stay in the University.
- xiii. Students shall not indulge in physical combat in the University. Students who violate this provision shall be rusticated for two semesters/contact sessions and in addition, forfeit University accommodation for the following session.
- xiv. No student shall take the laws into his/her hands. Students who take laws into their hands shall be rusticated for two semesters/contact session.
- xv. Any student caught with inappropriate possession of items within the University community shall be handed over to the University Security Division for further necessary action. Once the security division establishes a case of theft, he or she would be suspended and handed over to the police; where a report indicates conviction by a court of law, he or she shall be expelled.
- xvi. A student arrested by security agencies and charged for a non-bailable criminal offence shall be suspended immediately until when investigations are concluded, where a report indicates conviction by a court of law, he or she shall be expelled.
- xvii. Political parties and their activities are not allowed on campus but as citizens of the country, students are free to belong to any political party of their choice.
- xviii. Any student accused of rape, sodomy and/or bestiality/lesbianism shall be handed over to the Police and liable to expulsion should judicial authorities prove the allegation.
- xix. Any student caught forging any document relevant to his/her admission shall be expelled from the University.

- xx. A student caught forging any document of the University or any other document in a bid to cheat or gain undue advantage in the University shall be expelled.
- xxi. Students who indulge in sexual harassment of fellow students and other members of the University community shall be liable to rustication for two semesters/contact sessions or expulsion.
- xxii. **Cultism is prohibited in the University**. Students who belong to any cult shall be expelled from the University and handed over to the police.
- xxiii. No student is allowed to institute a case (civil or criminal) against a fellow student while the University is in session without prior notice to the Dean of Student Affairs Affairs.
- xxiv. In the event of a student having a case in a court of law or the police station while the University is in session, the student shall liaise with University for out of court or police settlement provided it is not a criminal case.
- xxv. Nostudent shall indulge in any conduct that would bring the good name of the University to disrepute. Violation of this provision shall attract rustication for two semesters/contact session or expulsion.

9.10 SPORTS AND EQUIPMENT

- i. Students are encouraged to participate in sporting activities.
- ii. Sport equipment may be issued to students whenever necessary, be it on individual or club basis or through associations/societies.
- iii. Any student who fails to return sport equipment issued to him/her at the stipulated time will be made to pay a prescribed fine.
- iv. In the event of the loss of any equipment issued to student(s), the student(s) or club(s) shall be made to replace it and pay a fine of not less the cost of the equipment.

10.0 MAIL

The University shall not be responsible for any missing mail.

10.1 IDENTITY CARDS / IDENTIFICATION

- i. The possession of University identity cards by students is compulsory.
- ii. A student must identify himself/herself by providing his/her identity card when required to do so.
- iii. Identity card is to be obtained from the Student Affairs Division on payment of prescribed fees.
- iv. Students who do not have identity card may be denied University facilities or other benefits meant for students.

- v. Upon completion of their studies or termination of studentship, the identity card should be surrendered to the Chief Security Officer.
- vi. Students who have vehicles shall obtain University stickers from the Tollgate Management Committee on payment of prescribed fees. The stickers shall be pasted boldly on their vehicles for easy identification.
- vii. Students who have vehicles shall register their vehicles with the security post at the hostel or the campus as the case may be.
- viii. Vehicles with tinted glasses are not allowed into the University by the Security Office except those permitted by law.
- ix. Reckless driving is prohibited within the University. Defaulters shall have their cars impounded, in addition to any other disciplinary measures deemed fit by the University.

10.2 COLLECTION OF MONEY IN THE UNIVERSITY

- i. Individual students or students' organizations shall not solicit for donations in respect of any function held by them within and outside the University except with the express permission of the Dean of Student Affairs and upon the recommendation of their Staff Adviser.
- ii. Registered students' associations are allowed to charge a token as registration or annual dues from their members. However, the charges shall be within the limit approved by the University Management.
- iii. When it is necessary to make a charge to cover the expenses for programmes organized by students' associations, printed tickets of programmes can be offered for sale on approval by the Student Affairs Division.
- iv. The Executives of any association that contravene the regulations on collection of money shall be dissolved forthwith, in addition to any disciplinary measure deemed fit by the University.
- v. Any student or group of students who collects money or donation under any false pretence shall be expelled from the University.
- vi. Withdrawal of money from the account of students' associations requires express permission of Staff Adviser(s).
- vii. Any student or group of students who embezzles (mismanages) any money or property belonging to a registered union/association/club/society or the Students Union shall be made to refund the money, replace the property or have their results/NYSC call up letters withheld or be liable to two-semesters/contact sessions rustication or expulsion, as the case may be.
- **NB**: Students rusticated in the first semester will henceforth have the portal opened to enable them register in the second semester of a session.

10.3 GUIDELINES FOR FINAL YEAR RESEARCH PROJECT

Students at 400 level are required to undertake Research Project work under the guidance and supervision of an academic staff of the Department from first semester of the session. The research project can be carried out either by doing original research work and presenting outstanding views, theories and concepts or reviewing the papers of special importance, in the areas of Zoology, with a view to ensuring uniformity in respect of preparation of research project report, the following format should be adopted while writing the project report;

Preliminary pages are arranged in the given order;

i. **Cover page** (see Appendix I)

ii. Title page (see Appendix II)

iii. Certification page (Appendix III)

iv. **Dedication** (Optional)

v. **Acknowledgements**: Express your gratefulness and thanks only to those who have either contributed or helped during the project work. Do include all those who helped you, e.g. from other universities/faculties/staff of the Department/ unit you consulted, colleagues who assisted etc.

vi. Table of Contents: Shall include all Titles & sub-titles (see appendix III)

vii. List of Plates: Photographic illustrations shall be listed as plates with appropriate legends and their pages number. Legend should be at the base of plate.

viii. **List of figures:** All graphs, histograms and drawings shall be listed as figures along with appropriate legends and their page numbers, the legend should be at the base.

ix. List of Tables: A serial list of tables with titles on the top and the pages number as they appear in text shall be listed here.

x. Abbreviation/Glossary/Definitions: if any.

xi. **Abstract:** An abstract of 150-200 words stating briefly the title, methodology adopted, results and recommendation(s) or application(s) shall be included, and this should not exceed one page and should usually be one paragraph.

Chapters 1-5

It is mandatory that you divide the report into chapters each of which may be structured into sections (1.1, 1.2) and sub-sections (1.2.1, 1.2.2). The sections and sub-sections must carry titles. Adjust the chapter number and the title to fall in the centre of the page and use bold, upper case fonts.

xi. **Chapter One**: **Introduction**: The key words to the research title should be introduced, followed by relevance of the subject, statement of problem, justification, aims and objectives.

xiii. **Chapter Two: Review of Literature:** It shall include the review of related literature relevant to the topic. Students are advised to avoid use of old literatures (Eg. Collins, 1980). The use of internet is recommended for getting new literatures and references.

xiv. Chapter Three: Materials and Methods: Scientific Equipments/materials. Methods/techniques/procedures used (with proper citations) in the investigations shall be described. Period of study and study area(s) shall be stated. Maps of the study area(s) are encouraged to be included.

xv. **Chapter Four**: **Results**: Observations and results obtained during the investigations should statistically be analyzed and presented in scientific manner, supported by tables, plates and figures as appropriate. All illustrations shall be numbered in Arabic numerals and must be referred in text. Well explanatory legends of figures and plates should be at the base while the titles of the tables should be on the top. The illustration(s) shall be arranged immediately after it has been first referred in the text.

xvi. **Chapter Five**: **Discussion**: Results obtained shall critically be analyzed and discussed with previous related works. Implications, reasons of obtained findings shall also be discussed with citations.

xvii. **Conclusion and Recommendations:** Based on the results, conclusion and recommendation shall be made.

xviii. References:

Reference Style; the department uses APA (American Psychological Association) system of referencing.

IN THE TEXT: author, year format, for example;

The values of thermal conductivities for a variety of substances have been reported by Bala (2010). For polymers, however, the information is more limited and some recent reviews have attempted to fill the gaps (Bala and Adamu, 2011).

For one author: Bala, (2010), for two authors; Bala and Adamu, (2011) and for more than two authors; Bala*et al.* (2011).

All references to the literature cited in the text should be presented in the list of references. All references should be listed alphabetically by author(s) surname followed by initials, the year of Publication. A reference shall be presented by first writing the Author(s)surname followed by initials, the year of publication, the complete title of the article, complete(not abbreviated) name of the journal, volume number part number if any and pages, as the following example;

Bala, A. Y. (2010): Relative prevalence of the human hookworm species, *Necator americanus* and *Ancylostoma duodenale* in Jos – North Local Government Area of Plateau State. *Research Journal of Parasitology*, 5(1): 18 – 22. ISSN 1816-4943/ DOI: 10.3923/jp.2010. Available on line at http://scialert.net/abstract/?doi=jp.2010.18.22

For citing text books, one should first write the Author(s) name, followed by Year of publication, title of the book/publication, the edition (if available), publisher's address andVolume/pages, as the following example;

Bandiya, H. M. (2020). *Basic Entomology*. Usmanu Danfodiyo University, Sokoto Press. ISBN: 978-978-981-831-1. Pp 23- 34.

For articles from non-serial publications like Symposia, conferences, Encyclopedias, treaties etc., First give Author(s) name, title of article followed by "in...(give title/volume/part of publication, followed by particular pages of article, name(s) of editor(s) followed by edition(s), publication name, year of publication, as the following examples;

Bala, A. Y., Adamu, T. and Bunza, M. D. A. (2011).Preliminary observations of House rats (*Rattusrattus*) experimentally infected with Sokoto isolate of *Trypanosomaevansi*. A paper presented at the 35th annual Conference of the *Parasitology and Public Health Society of Nigeria* (PPSN), Benin, Edo State. 21 – 24th September, 2011.

Brown, R. The germination of Angiosperm parasite seeds. In Encyclopedia of Plant Physiology, Vol.15, pt.2, Pp925-932, Ruhland, W.(ed) Berling-Heidelberg, New York, Springer 1965.

Bala, A. Y. and Adamu, T. (2008): Anti-diarrhoeal activity of *Psidiumguajava* (Guava) aqueous leaf extract in experimental animals. *Nigerian Journal of Basic and Applied Sciences*, 16(2): 182 – 187.

For online articles not from journals, conferences or encyclopedia, etc, first give the authors name, the year, the title of the work and the website address, e.g. Zumunta Association Inc. USA (2003). *Traditional Vs Modernism*: A look at Fulani Methods of Livestock disease Management. http://www.ebmaster@zumunta.org.

Date Retrieved: 23/12/2012

 $\begin{array}{c|c} CCOHS, (2005). \mbox{ What is } LD_{50} \mbox{ and } LC_{50}. \mbox{ Canada's National Occupational Health and Safety Resource.} \\ Canadian & Centre & for & Occupational & Health & and & Safety: \\ \underline{http://www.ccohs.ca/oshanswers/chemicals/id50html}. \end{array}$

Date Retrieved: 03/10/2002

Note that;

- 1. The name (s) of scientific journal(s) and title of books should always be italicized.
- 2. The project report must be in English and shall be typed in the double spaced on one side of quarter size paper.
- 3. All pages before introduction page shall be numbered in Roman numerals (eg. i, ii, iii, iv etc.), while the pages from beginning of introduction to the end of the project including appendices shall be numbered in Arabic numerals (1,2,3,4, etc.).
- 4. Each student has to defend his/her research project report before an External examiner on notified fixed date.
- 5. Student will collect External examiners corrections and comments through their supervisors.

- 6. After effecting corrections pointed out during the defense, student will prepare final copies for submission, through their supervisors.
- 7. The supervisor signed the project report only if satisfied with the corrections made by student as pointed out by the external examiner.
- 8. The project report shall be bonded in navy blue (Dark Blue) cover.
- 9. The cover page shall contain- The title, candidate's name (registration number in brackets), degree (subject), Department and month/year of award
- 10. The spine shall contain the degree (discipline), candidate's name and year.
- 11. Each student shall submit four copies of the project report, including two CDs containing the soft copy of the project (One for the Department and the other for University Library).
- 12. The student has one week only to do all these corrections and submit the final bonded copies before their results for research project is finally released.

10.4 APPENDICES

Appendix I

(Cover Page)

Title of Research Project

(In Capital Letter)

Name and Admission Number

Degree in view

Department and University

Month and Year

Appendix II

TITLE PAGE

Title of Research Project (in capital letter) A Project report Submitted in partial fulfillment of the requirements For the award of Bachelor of Science (Hons.) Degree In Zoology In the Department of Biological Science, UsmanuDanfodiyo University, Sokoto By Name and Admission Number Example below;

Month and Year

LIMNOLOGY AND FISHERIES POTENTIALS OF RESERVOIRS IN NORTHERN NIGERIA

Α

PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (HONS) DEGREE

IN

ZOOLOGY IN THE DEPARTMENT OF BIOLOGICAL SCIENCE USMANU DANFODIYO UNIVERSITY, SOKOTO.

BY

IBRAHIM MUHAMMAD MAGAMI ADM. NO.: 9811309001

October, 2002.

Appendix III TABLE OF CONTENTS

Contents	Page
Title page	
Dedication	
Approval Sheet	
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List of plates (if any)	
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Abbreviations/Library/Definitions (if any)	
Abstract	
Chapter One: Introduction	
Chapter Two: Review of literature	
Chapter Three: Materials and Methods	
Chapter Four: Observations/Results	
Chapter Five: Discussion	
Conclusion and Recommendation	
References	
Appendices (if any)	

APPROVAL PAGE

"This research project entitledby

(Name & Admission number) has been read and approved by the undersigned as meeting the requirement for the award of Bachelor of Science (Hons.) Degree in Biology in the Department of Biological Sciences, Usmanu Danfodiyo University,

Sokoto"

Prof Zainab Tukur External examiner

Name Project Supervisor

Dr MM Yahaya Head of Unit

NB: Students are also advised to ask their supervisors/level coordinators anything they are not sure, regarding their projects, rather than asking their co projects students.

Date

Date

Date

11.0 LIST OF ACADEMIC STAFF

S/N	Name	Rank	Qualification	Status
1.	Prof.TukurAdamu	Professor	B.Sc. M.Sc. PhD	On Seat
2.	Prof.Kiran. Singh	Professor	B.Sc. M.Sc. PhD	On Seat
3.	Prof. Kabiru Abdullahi	Professor	B.Sc. M.Sc. PhD	On Seat
4.	Prof.M.D.A. Bunza	Professor	B.Sc. M.Sc. PhD	On Seat
5.	Prof. M. M Yahaya	Professor	B.Sc. M.Sc. PhD	On Seat
6.	Prof. A.Y. Bala	Professor	B.Sc. M.Sc. PhD	On Seat
7.	Prof. H.M. Bandiya	Professor	B.Sc. M.Sc. PhD	On Seat
8.	Prof. Yahaya MA	Professor	B.Sc. M.Sc. PhD	On Seat
9.	Dr. IM Magami	Reader	B.Sc. M.Sc. PhD	On Seat
10.	Basiru Yahaya	Assistant Lecturer	B. Sc. M. Sc.	On seat
11.	Dr. L.M. Misbahu	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
12.	Dr. M.G. Liman	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
13.	Dr. A. Sanda	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
14.	Dr. H. Shehu	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
15.	Dr. A. Waziri	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
16.	Dr. S.A. Anka	Professor	B.Sc. M.Sc. PhD	Adjunct Staff
17.	Dr. J. M. Ahmed	Senior Lecturer	B.Sc. M.Sc. PhD	Study Leave
18.	Dr. A.I. Dadai	Reader	B.Sc. M.Sc. PhD	Adjunct Staff
19.	Dr. E.V.C Okoh	Reader	B.Sc. M.Sc. PhD	Adjunct Staff
20.	Dr. H. Ahmad	Reader	B.Sc. M.Sc. PhD	Adjunct Staff
21.	Dr. A.M. Gumi	Reader	B.Sc. M.Sc. PhD	Adjunct Staff
22.	I.I. Rokoto	Lecturer I	B.Sc. M.Sc.	Adjunct Staff
23.	I.G. Saidu	Lecturer I	B.Sc. M.Sc.	Adjunct Staff
24.	S. Namadi	Lecturer II	B.Sc. M.Sc.	Adjunct Staff
25.	MU Ladan	Senior Lecturer	B.Sc. M.Sc.	On Seat
26.	SM Yelwa	Lecturer I	B.Sc. M.Sc.	On Seat
27.	Y.M. Ahijo	Senior Lecturer	B.Sc. M.Sc. PhD	Adjunct Staff
28.	U.S. Batagarawa	Lecturer I	B.Sc. M.Sc.	On Seat
29.	M.K. Nata Ala	Lecturer I	B.Sc. M.Sc.	Adjunct Staff

12.0LIST OF NON-ACADEMIC STAFF

SN	SP/JP	NAME	Qualification	Rank
1.	SP 2192	AM Dange	HND, PGBDS	Chief Technologist
2.	SP 6374	BU Danbuwa	ND	Ass Lab. Technologist
3.	SP 3521	BA Tambuwal	ND, HND	Senior Technologist
4.	SP 3050	LA Kamba	ND	Ass Lab. Technologist
5.	SP 6179	Nasiru Sani M	ND, HND	Technologist II
6.	SP 6181	NM Oyinye	ND, HND	Technologist II
7.	JP 3191	Bunza S.U	SSCE	Secretary
8.	JP 4112	TijjaniHamidu	ND	Senior Assistant Technology
9.	JP4744	U. M. Jabo	SSCE	Senior Lab. Assistant
10.	JP5005	F. I. Abubakar	SSCE	Lab. Assistant
11.	SP7377	Mustapha Abdullahi	HND	Pers. Sect.
12.	JP4717	Aminu Rabo	SSCE	Office Assistant