DENNIS OSADEBAY UNIVERSITY
ASABA, NIGERIA

FACULTY OF ENVIRONMENTAL SCIENCES

DEPARTMENT OF GEOGRAPHY

HANDBOOK

FOR

BACHELOR OF SCIENCE (B.Sc.)
IN

GEOGRAPHY

2023 – 2028

PREFACE

The University environment is a dynamic and intellectually stimulating space where students are expected to understand and adhere to the rules, structures, and academic expectations of both the University and their Department. This handbook serves as a comprehensive guide to the Department of Geography, and provides vital information on the programme structure, courses offered, grading system, graduation requirements, academic staff, and other relevant guidelines to assist students throughout their academic journey in Dennis Osadebay University, Asaba.

The B.Sc. Geography programme was established in 2023 as one of the programmes within the Faculty of Environmental Sciences at Dennis Osadebay University, Asaba. The Department is committed to promoting excellence in geographical education, research, and community service. It equips students with the analytical, technical, and field-based skills needed to understand spatial processes, environmental systems, and human-environment interactions, thereby preparing them for professional careers in geography, environmental management, and related fields.

Students are encouraged to use this handbook as a constant reference throughout their studies, especially during their first year, to better navigate academic and departmental procedures.

I warmly welcome you to the Department of Geography and wish you a fruitful and rewarding academic experience.

Famous OZABOR (Ph.D)
Lecturer-in-Charge
October, 2023

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SECTION 1.0
Preamble

The Core Curriculum Minimum Academic Standards (CCMAS) is designed for the education and training of undergraduate students wishing to obtain first degrees in the different areas of Administration and Management Science in Nigerian University System. Presented in this section are the basic operational elements that serve to define the minimum academic standards required to achieve the cardinal goal of producing graduates in Administration and Management Science with sufficient academic background to face the challenges of a developing economy in an increasingly globalized economic setting.

SECTION 2.0

UNIVERSITY ORGANISATION AND ADMINISTRATION

The administrative structure of Dennis Osadebay University is patterned towards the existing Universities in Nigeria in the following order;

a. Visitor

The visitor to the Dennis Osadebay University, Asaba is the Executive Governor of the State. The visitor ensures adequate financial base and support for the optimized performance and management of the University.

b. Chancellor

The Chancellor of the Dennis Osadebay University, Asaba is appointed by the Visitor and is the highest Principal Officer of the University. The Chancellor, in relation to the University, take precedence before all other members of the University held for conferring degrees, diplomas and certificates, and other awards. The Chancellor is often a distinguished person in society who is also visibly committed to the ideals of the University.

c. Pro-Chancellor

The Pro-Chancellor is appointed by the Visitor of the Dennis Osadebay University. The Pro-Chancellor take precedence before all members of the University except the Chancellor and except the Vice Chancellor when acting as chairman of Convocation.

d. Governing Council

The Council is the governing body empowered with the management of the affairs of the University and in particular, the control of the property and expenditure of the University.

e. The Vice-Chancellor

The Vice-Chancellor is the Chief Executive Officer and Academic Head of the University, and Chairman of Senate and Congregation.

f. Senate

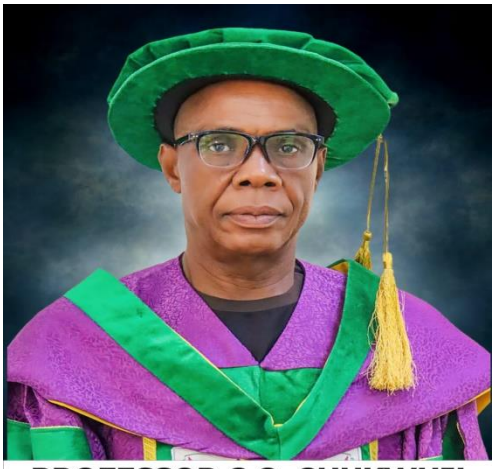
The Senate formulates academic policies including the organization and control of all academic activities of the University. It is the function of the Senate to organize and control

teaching, students' admission, and discipline of students and to promote research within the University. The member of the University Senate is comprising of:

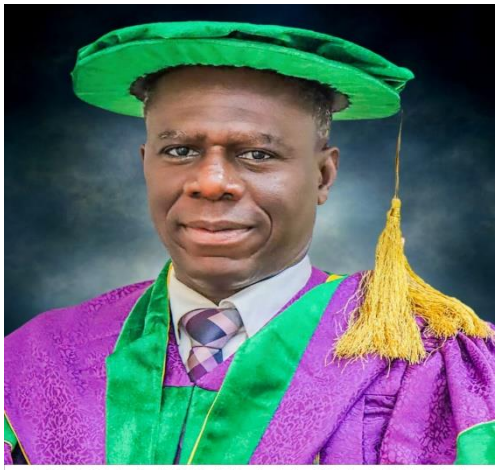
i.	Vice Chancellor	Chairman
ii.	Deputy Vice-Chancellors	Member
iii.	Deans of Faculties	Member
iv.	Directors	Member
v.	Heads of Academic Departments (HoDs)	Member
vi.	Professors	Member
vii.	University Librarian	Member
viii.	Six Representatives of Congregation	Member
ix.	Registrar	Secretary

SECTION 3.0

PRINCIPAL OFFICERS OF THE UNIVERSITY

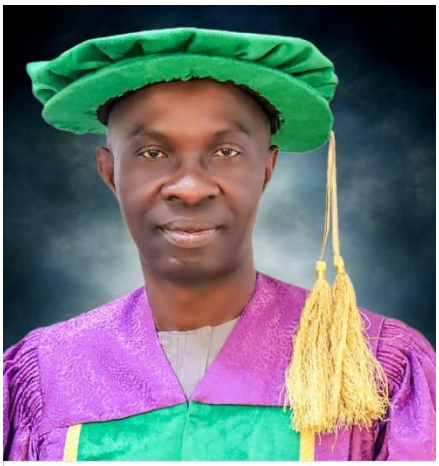


PROFESSOR C.O. CHUKWUJI
(DEPUTY VICE CHANCELLOR, ADMINISTRATION)



PROFESSOR R.O DODE
(DEPUTY VICE CHANCELLOR OF ACADEMICS)

MRS. GENEVIEVE .I. OBADAN
(REGISTRAR)



MR. OKOLO EMMANUEL OKOLO
(BURSAR)

DR. NELSON EDEWOR
(UNIVERSITY LIBRARIAN)

The day-day administration of the university is managed by the principal officers:

Vice-Chancellor
Professor Ben Emukofia Akpoyomare OGHOJAFOR
B.Sc. (UNILAG)
M.Sc. (UNILAG)
Ph.D. (UNILAG)

Deputy Vice Chancellor, Administration
Prof. Christopher Okeleke CHUKWUJI
B. Agriculture (UNN)
M.Sc (UNN)
PhD. (DELSU)

Deputy Vice Chancellor, Academics
Prof. Robert Oghenedoro DODE
B.Sc. (UNIUYO)
M.Sc. (UNIUYO)
PhD. (UNIPORT)

Registrar
Mrs. Genevieve Isioma OBADAN
B.Sc. (UNIBEN)
PGD (UNIBEN)
M.Sc. (UNIBEN)

Bursar
Mr. Okolo Emmanuel OKOLO (FCA)
B.Sc. (UNN)
MBA. (DELSU

University Librarian
Dr. Nelson EDEWOR
B.Sc. (DELSU)
M.Sc. (DELSU)
PhD. (UNN)

Location of the University
Dennis Osadebay University, Asaba, Delta State, Nigeria

SECTION 4.0

VISION AND MISSION OF THE UNIVERSITY

a. **Vision:** To be a leading transformational University for the empowerment of stakeholders by leveraging technology.

b. **Mission:** To provide a tradition of excellence in teaching, research, innovation, entrepreneurial skills, and competence endeavours towards meeting societal needs.

SECTION 5.0

FACULTY OF ENVIRONMENTAL SCIENCES

The Faculty of Environmental Science (FES) at Dennis Osadebay University, Asaba, Nigeria, is one of the university's dynamic and forward-looking faculties. Established to advance sustainable development and environmental innovation, the FES plays a central role in shaping professionals who address the environmental, infrastructural, and spatial challenges of modern society.

From its inception, the Faculty of Environmental Science had 6 departments which later increased to 10 and comprise of ten departments, each focusing on specialized areas of environmental studies, design, and management. These departments are Architecture, Building, Geography, Fine and Applied Arts, Industrial Design, Urban and Regional Planning, Quantity Surveying, Surveying and Geoinformatics, Environmental Management, and Estate Management.

The faculty provides a multidisciplinary platform where creativity meets science, equipping students with the knowledge, technical skills, and ethical grounding needed to promote sustainable environments and resilient communities. It fosters innovation through research, practical design, and community engagement, contributing meaningfully to the built environment and environmental management sectors in Asaba, Nigeria, and beyond.

History of the Programme

The Department of Geography at Dennis Osadebay University, Asaba, was established in 2023 as one of the academic programmes under the Faculty of Environmental Science. The Department was created to advance the study of spatial patterns, human–environment interactions, and sustainable development, aligning with the university's mission to promote research and innovation that address real-world environmental and developmental challenges.

The foundation and successful establishment of the Department were made possible through the dedication and hard work of Dr. Ozabor Famous and Dr. Ushurhe Ochuko, who served as the pioneer academic staff. They carried out the groundwork that led to the creation of the Department, including programme design, curriculum development, and accreditation processes. Their vision and commitment were instrumental in laying a solid academic and administrative foundation for the Department's growth.

Since its inception, the Department of Geography has recorded steady progress in staffing, academic activities, and student enrolment. It currently has 13 academic staff, made up of 4 females and 9 males, all committed to quality teaching, research, and community engagement.

The Department offers a Bachelor of Science (B.Sc.) Degree in Geography, with academic and research focus areas such as environmental management, climatology, geomorphology, cartography, remote sensing, Geographic Information Systems (GIS), and urban and regional planning. Through these disciplines, the Department continues to contribute to the training of skilled geographers who can provide sustainable solutions to Nigeria's environmental and developmental challenges.

Vision Statement

The Geography Programme envisions becoming a centre of excellence in geographic education, research, and community service. It aims to nurture students who demonstrate analytical thinking, environmental consciousness, and professionalism in understanding and managing spatial and environmental processes for sustainable development.

Mission Statement

The mission of the Geography Programme is to provide quality training that inspires curiosity and passion for geographic knowledge. It seeks to equip students with the theoretical understanding, practical skills, and technological competence needed to analyze and solve environmental, social, and spatial challenges at local, regional, and global scales.

B.Sc Geography Degree

Philosophy

The philosophy of the B.Sc. Geography programme is to equip the students with theoretical and practical knowledge to understand the interrelationships among the physical, chemical, biological and human realms of the environment so that they can make effective contributions to the development of Nigeria, Africa and the global community.

Aim

The programme aims to produce highly skilled geographers equipped with the knowledge and analytical skills necessary to explore, understand, and manage the environment through research, innovation, and practical application of geographic principles.

Objectives

The specific objectives are to help the student of geography:

1. describe the earth's physical, chemical, biological and human environments and their interrelationships;
2. interpret geographic concepts, theories, problems and methods so that they can apply such knowledge in solving human problems;
3. identify careers in areas like Geographic Information System, surveying, Urban and rural planning; environmental impact assessment; environmental management; climate change. Such skills will equip geography graduates to fit into many areas in both the public and private sectors of the economy;
4. apply geographical concepts to different socio-cultural contexts;

5. cultivate the ability to apply their geographical knowledge and skills to the understanding and solution of societal problems in Nigeria and elsewhere; and
6. develop a range of useful skills and competencies for public, private or self-employment.

Geography Laboratory

The Department of Geography is equipped with a modern Geography Laboratory that supports both teaching and research in environmental and spatial studies. The facility includes well-furnished computer laboratories for staff and students, where training is provided in Cartography, Geographic Information Systems (GIS), Remote Sensing, and Spatial Data Analysis. The laboratory is equipped with advanced geographic software such as ArcGIS, QGIS, ERDAS Imagine, Google Earth Pro, Surfer, and AutoCAD Map, enabling students to develop strong technical and analytical skills in mapping, spatial modeling, and environmental assessment.

In addition to the computer laboratory, the Department operates a Physical Geography Laboratory, where practical exercises and research on soil and water analysis are carried out. This facility allows students to study physical and environmental processes through hands-on experimentation and field-based sampling.

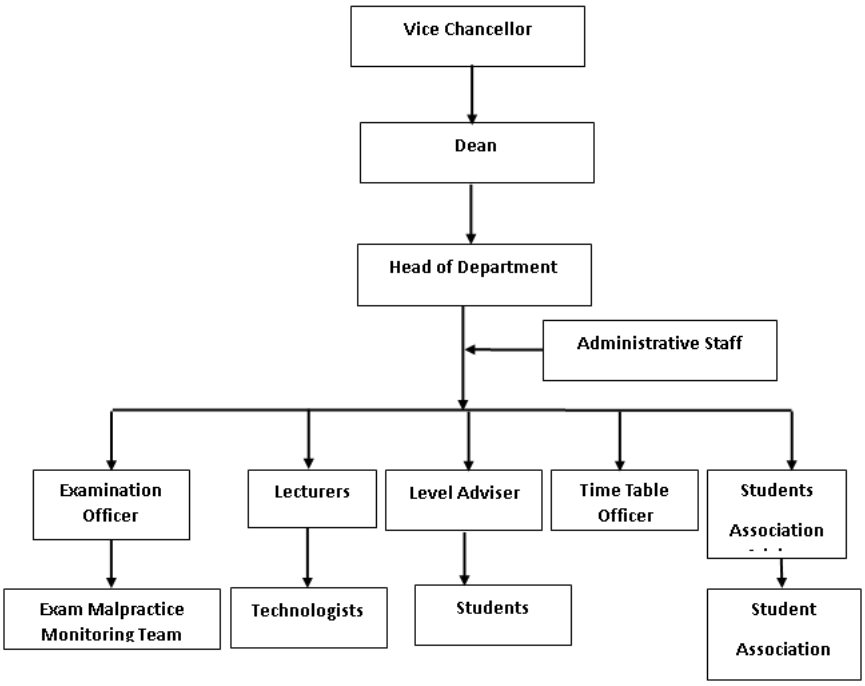
The Department also maintains a Weather Station, which provides real-time meteorological data for academic and research purposes. The station supports the teaching of climatology and applied meteorology, allowing students to gain practical experience in weather observation, data recording, and analysis.

Together, these facilities provide students with a comprehensive and applied learning environment, equipping them with the knowledge and technical expertise required for professional and research careers in Geography and Environmental Science.

Course Adviser

The Head of Department appoints for each level a Course Adviser, who is a member of Academic Staff. The course adviser approves students' registration forms, advises students individually and ensures right choice in line with the regulations and requirements for the award of degree.

Departmental Organizational Structure / Board of Studies



The Department have both academic and non-academic staff with the Head of Department at the apex of the department's organizational chart. The organizational structure allows members of staff to interact freely with the Head of Department. Besides departmental management meetings, Committees are set up to handle some matters arising in the department.

Departmental Committees 2023/2024 Session

The department has several Committees that oversee different arms, each committee with a Coordinator and some staff serving as members. The following is the list of the departmental committees whose members are roles/objectives are likewise presented: Administrative; Level Advisers; Curriculum Committee; Academic Standards & Quality Assurance Committee; Examinations/Time table Committee; Staff Welfare Committee; Accreditation; and Workshops/studio and Instrumentation Committee.

SN	Geography Departmental Committee
A.	Level Advisers
B.	Curriculum Committee
C.	Academic Standards & Quality Assurance Committee
D.	Examinations/Time Table Committee
E.	Staff Welfare Committee
F.	Accreditation Committee
G.	Workshops/studio and Instrumentation Committee
H.	Library Committee

The Objectives/Roles of Geography Departmental Committee

(A): Level Advisers Committee (Objectives/Roles)

I. To guide students on selection of course for registration and document them or students' signature

II. To properly register student

III. To collect for the department copies of registration form for the files

IV. To have good information on each student under them

V. To have proper documentation on any of the assigned students going out of the university on any academic field trip, by counter signing and making recommendation for approval or otherwise on any application by the students

VI. To prepare monthly information on students' registration from the beginning to the end of each semester, this should be submitted to the coordinator

VII. Two copies of all communications on students must be collected by the special level advisers, one for the Department and the other for the adviser

VIII. To open a black or red file on students who are to be watched or monitored especially for alignment with department/University requirement

IX. To have more direct relationship with the students than the coordinator

X. To link up with the level representative/deputy in order to obtain information about each student when required.

(B): Curriculum Committee (Objectives/Roles)

The objectives of the Curriculum Committee are:

I. To develop, review, and update academic programs and curricula to ensure they remain current, relevant, and aligned with the university's mission and educational goals.

II. To maintain and enhance the quality of education by setting standards, benchmarks, and best practices for curriculum design.

III. To focus on promoting innovation in teaching and learning. It explores emerging trends in education and recommends the integration of new teaching methods, technologies, and interdisciplinary approaches into the curriculum.

IV. To serve as a liaison between different departments and faculties within the university, and ensure that programs are coordinated to avoid redundancy and to encourage cross-disciplinary collaboration.

V. To ensure that the curriculum meets accreditation standards and guidelines, which is crucial for the university's reputation and the recognition of degrees awarded.

(C): Academic Standards & Quality Assurance Committee (Objectives/Roles)

The objectives of the Academic Standards & Quality Assurance Committee are:

I. To assess the quality, relevance, and alignment of academic programs and curricula with the university's mission and goals. It reviews and recommends changes to ensure that programs meet established standards and benchmarks.

II. To ensure that the university maintains compliance with accreditation standards and requirements.

III. To develop and implement quality assurance processes to monitor and evaluate the effectiveness of teaching and learning.

IV. To formulate and update academic policies and procedures to uphold and improve academic standards.

V. To promote a culture of continuous improvement within the institution.

VI. To facilitate processes for gathering student feedback on their academic experiences and incorporating this feedback into quality improvement initiatives.

(D): Examinations/Timetable Committee (Objectives/Roles)

The responsibilities of the exam office committee are as follows:

(i) Collation of examination questions and marking guides from course lecturers
(ii) Printing and keeping custody of examination materials before and after examination
(iii) Preparation of examination invigilation schedule and monitoring the compliance level of invigilators and time-table preparation
(iv) Liaising with the HOD to ensure that final year questions are sent out on time to approved external examiners for vetting, and correction where necessary.
(v) Liaising with college examination office to ensure smooth conduct of examinations in the department
(vi) Ensuring that only legible students are allowed to write examinations in the department
(vii) Collection of result spreadsheet and making required number of copies for the College Board meetings
(viii) Participation in College Board meetings for approval of results at the end of the semesters
(ix) Liaising with the CSIS to effect necessary corrections on student's result as the occasion demands
(x) To maintain constant touch with lecturers in other departments to teach our students to ensure that our students results are made available to the department as at when due, and
(xi) Liaising with the CSIS to ensure that any students who have met the graduation requirement of the department is cleared and subsequently graduated.

(E): Departmental Staff Welfare Committee (Objectives/Roles)

The objectives of the Departmental Staff Welfare Committee are:

I. To assess the unique (social) needs and concerns of staff within the department
II. To promote the overall well-being of departmental staff by addressing their needs and concerns.
III. To facilitate opportunities for staff within the department to enhance their skills and knowledge through training, workshops, and other professional development activities that are specific to their roles and responsibilities.
IV. To foster open and transparent communication within the department.
V. To develop and implement programs to recognize and reward the contributions and achievements of departmental staff.

(F): Departmental Accreditation Committee (Objectives/Roles)

The objectives of the Departmental Accreditation Committee are:

I. To ensure that the department adheres to the specific accreditation standards and criteria established for the Geography discipline/programme.
II. To continuously monitor and enhance the quality of the department's educational programs, faculty, research, and resources to meet or exceed the accreditation standards.
III. To maintain comprehensive records and documentation related to the department's compliance with accreditation standards.
IV. To facilitate the self-assessment process within the department.

V. To develop and implement strategies and action plans to address areas in need of improvement as identified through the accreditation process.
VI. To ensure that all communication and documentation are in line with accreditation requirements.
VII. Oversee the preparation of self-study reports which evaluate the department's compliance with accreditation standards.
VIII. To stay informed about changes in accreditation standards and guidelines specific to the department's field of study. Make recommendations for policy or program adjustments to maintain compliance

(G): The Laboratory and Instrumentation Committee are to:

I. ensure that all laboratory equipment and instruments are properly maintained and calibrated;
II. oversee and enforce safety standards and protocols within the laboratories;
III. assess the needs of the department/units and researchers within the university and make recommendations for the acquisition of new equipment or the upgrade of existing instruments to enhance research capabilities;
IV. develop and manage the budget for laboratory and instrumentation needs. This includes allocating funds for equipment purchases, maintenance, and safety improvements; and
V. provide support to researchers and faculty members by facilitating access to advanced instrumentation and laboratory resources.

(H): Library Committee (Objectives/Roles)

The objectives of the Departmental Library Committee are:

I. To assess the specific information and research needs of the department and recommend the acquisition of relevant library resources, including books, journals, databases, and digital materials.
II. To enhance library services tailored to the needs of the department.
III. To assist in managing the department's library budget.
IV. To encourage staff and students within the department to utilize the library's resources effectively for research, teaching, and learning.
V. To advocate for the department's specific library requirements and communicate them to the university's library administration.

SECTION 6.0
Admission Requirements

In addition to acceptable scores in UTME, candidates must have obtained five Senior Secondary Certificate (SSC) credit passes which must include Mathematics, English Language and Geography and any two from Biology, Agricultural Science, Economics and Physics, in not more than two (2) sittings, to be admitted into the programme. However, Students with credit pass in Mathematics and English and any three credit passes in sciences or social sciences subjects may be considered.

Direct Entry Admission:

Direct Entry applicants for admission into the B.Sc. Geography degree programme shall possess at least five credits in GCE, 'O' Level, SSCE, NECO. The credits at 'O' level must include Geography, English Language and Mathematics and any other two from Biology, Agricultural Science Economics and Physics. In addition, DE candidates shall possess a pass at 'A' level, GCE or IJMB or ND in Geography or its equivalent at least with upper credit and NCE in Geography or equivalent with at least Merit level. HND applicants from relevant disciplines such as Surveying and Geo-informatics, Cartography, Estate Management, Town Planning, Architecture, and Environmental Sciences will also be considered for admission provided they satisfied the requirements above. This is applicable to only five-year programme

Graduation requirements

Total minimum credit required for graduation is 120 and 90 for students admitted through UTME and Direct Entry admissions respectively. In order to graduate, a student should pass all compulsory courses. One semester will normally be devoted to Student's Industrial Training (SIWES)

Academic Advisers

Every student is attached to an Academic Adviser who is a member of the academic staff of the department and who will advise him/her on academic affairs as well as on personal matters where necessary. Academic Advisors are expected to follow their student's academic progress and provide counselling to them. It is the duty of the Head of the Department to assign an Academic Adviser to each student at the beginning of each academic session.

Minimum Duration

The minimum duration of the B.Sc. Geography programme is four academic sessions (8 semesters) for candidates who entered through the UTME Mode. Direct entry candidates admitted into 200 level, of the programme will spend a minimum of three academic sessions (6 semesters). The maximum sessions allowed for the programme are six academic sessions (12 semesters) for the 4-year degree programme through UTME and five academic sessions (10 semesters) for students admitted through the direct entry mode.

Continuous Assessment

During the semester, students are given take-home assignments, quizzes and tests in each course. These constitute continuous assessment. The continuous assessment scores are recorded and form part of the final score in the given course. The CA forms 30% of the marks, while the exams are 70% making a total of 100%.

Semester Examinations

At the end of each semester, students are given an organized examination in each course. The score obtained in the examination together with the continuous assessment score form the course final score.

External examiners' system

The involvement of external examiners from other universities is a crucial quality assurance requirement for all courses in the Nigerian University system. In this regard, external examiner is appointed by the management as recommended by the department head and/or dean of the faculty. The external examiner moderates the final year examination question papers to the scope and depth of the respective course vis-à-vis the curricular expectation. The external examiner also examines the student's final project work orally. Here, the student is expected to defend his/her written/practical before the external examiner.

Grading System

Examination grades are reported with the following designations:

Mark/Score (%)	Grade	Grade Point
70-100	A	5.00
60-69	B	4.00
50-59	C	3.00
45-49	D	2.00
40-44	E	1.00
0-39	F	0.00

Degree Classification

Classes and Ranges

Degree Class	CGPA Range
First class	4.50 - 5.00
Second class upper	3.50 - 4.49
Second class lower	2.40 - 3.49
Third class	1.50 - 2.39

Probation

A student whose cumulative Grade Point Average is below 1.00 at the end of a particular session, earns a period of probation for one academic session.

Withdrawal

A candidate whose cumulative Grade Point Average is below 1.00 at the end of a particular year of probation shall withdraw from the university. However, in order to minimize the waste of human resources, consideration shall be given to withdrawal from the programme and possible transfer to other programmes within the university as recommended.

Senate Regulations Governing Conduct of Examinations

The following rules and regulations shall govern the conduct of examinations at Dennis Osadebay University. Any contravention of the under-listed rules and regulations shall constitute an examination misconduct:

(i) A registered student must earn 75% class attendance to be allowed to write the end of semester examination.

(ii) Attendance sheets for examination are generated from the list of registered students.

(iii) Any student who has not paid fees will not have his/her name on the list of registered students which will be published two weeks before the commencement of each semester's examination for the purpose of cross-checking.

(iv) Students not duly registered by their departments as having fulfilled the prescribed conditions for course registration will not be admitted into the examination hall

(v) Students shall report at the stipulated examination halls 30 minutes before the start of examinations

(vi) No student shall be allowed into the examination hall after 30 minutes of the start of the examination.

(vii) No student shall be allowed to withdraw from the examination within 30 minutes of the commencement of the examination.

(viii) Students may go to the toilet, etc., during examination provided that they are accompanied throughout the period of absence by an authorized University staff. Such absence must not be unreasonably prolonged and the student shall not be allowed any extra time by reason of such absence.

(ix) Students shall not be allowed to bring into the examination hall any answer sheet/booklet used or unused.

(x) Students shall not walk out of the examination hall with any answer sheet/ booklet used or unused.

(xi) Students shall comply with any instructions given by the invigilators as to the submission of their answer booklet after the examination.

(xii) Faculties and Departments shall provide security checks by ensuring that examination booklets are duly stamped and signed before the start of examinations.

(xiii) It shall be the responsibility of each student to ensure that his/her examination booklet is duly stamped and signed.

(xiv) Students shall not talk to one another, give or receive from one another any form of assistance such as pens, erasers, pencils, rulers, calculators etc.

(xv) All questions pertaining to the examination must be directed to the invigilators.

(xvi) Invigilators shall report any examination misconduct formally to the HOD or Dean of the appropriate Department or Faculty as specified by the Senate.

(xvii) Invigilators shall inform the students of the exact time to start an examination and thereafter inform them of the time left at reasonable intervals until the end of the examination.

(xviii) Examination question papers must contain marks allotted for the examination and marks allotted for each question.

(xix) Invigilators shall ensure that personal effects such as bags, textbooks, scrap notes, handsets, MP3 players, earphones, unauthorized calculators and logbooks, smart watches, organizers, hotspots gadgets and any other incriminating materials etc., are not brought into the examination hall by students.

(xx) Silence shall be maintained throughout the duration of examinations.

(xxi) Invigilators shall ensure that all students sign the attendance register

(xxii) No one is permitted to enter an examination hall earlier than 30 minutes before the start of an examination

(xxiii) Upon entry into the examination hall, students should sit at the desk that has been assigned to them.

(xxiv) Students will be required to process and present examination dockets from their departments before examinations. Evidence of Faculty, Department dues and School fee payments shall be verified during the week of revision.

(xxv) All rough work must be done in the answer booklets provided.

(xxvi) Students are not allowed to eat or drink during the examination

(xxvii) At the end of the examination, students must stop writing and remain seated until they hand in their answer booklets in an orderly manner

(xxviii) Any student caught committing an examination misconduct should be issued an examination misconduct form to fill out and be allowed to continue with the examination.

Penalties for Examination Misconduct

A student may be penalized based on the established case of examination misconduct or any action likely to cause a breach of peace during examinations. Such a student will however have the opportunity to defend him/herself before the Students' Examination Misconduct Committee. Once a student is expelled from the University on grounds of examination misconduct he/she has no opportunity of being re-admitted to the University.

Prescribed Penalties for various forms of Examination Misconducts

S/N	EXAMINATION MISCONDUCTS	PENALTY
1.	Impersonation or Fake identity	Expulsion
2.	Smuggling and Possession of Answer Booklet	Expulsion
3.	Destruction of unauthorized materials when caught	Expulsion
4.	Attacking or threatening Invigilators	Expulsion
5.	Plagiarism of content	Expulsion
6.	Tendering unauthentic (fake) document	Expulsion
7.	Auto Coding Software and use of Team viewer software to take control of students' computer remotely	Expulsion
8.	Hacking of the question bank/system, resulting to content leakage of questions	Expulsion
9.	Screen sharing/Mirroring to other devices/Projectors of friends/classmates/family/experts to cheat	Rustication: two (2) semesters
10.	Cheating with Technological Devices/ High-Tech Equipment e.g. micro Bluetooth powered devices-ear buds, augmented reality glasses, invisible smart watches, hard drives, USA among other things	Rustication: two (2) semesters
11.	Use of Smartphones/Smart Devices and Mobile Education apps, to retrieve automated recommended answers	Rustication: two (2) semesters
12.	Deliberate obstruction of Proctoring Device	Rustication: two (2) semesters
13.	Presence of Family/Friends in Examination Room	Rustication: two (2) semesters
14.	Indecent Dressing (Dressing that does not conform with the University Dress Code)/Nudity	Rustication: two (2) semesters
15.	Smoking, eating or drinking during examination	Rustication: two (2) semesters, and Referral to student Disciplinary Board for Drugs and Drug related offences
16.	Failure to submit answer scripts	Rustication: two (2) semesters
17.	Possession and copying from jottings of relevant materials on body parts/devices	Rustication: two (2) semesters
18.	Possession and Copying from unauthorized/written materials	Rustication: two (2) semesters
19.	Aiding and Abetting others to copy	Rustication: two (2) semesters
20.	Refusal to submit offending materials	Rustication: two (2) semesters

21.	Collaborative copying	Rustication: two (2) semesters
22.	Refusal to complete examination Misconduct Forms	Rustication: two (2) semesters
23.	Unauthorized communication	1st Timer: Warning 2nd Timer: Rustication: One (1) Semester
24.	Disruptive Behaviour in the examination hall	1st Timer: Warning 2nd Timer: Rustication: One (1) Semester
25.	Influencing Examination Official	1st Timer: Warning 2nd Timer: Rustication: One (1) Semester
26.	Unauthorized Changing of Sitting position	1st Timer: Warning 2nd Timer: Rustication: One (1) Semester
27.	Possession of mobile telephone(s) and other device in the examination hall, either in use or not	Rustication: two (2) semesters
28.	Taking examination in an environment that does not conform to the University guidelines for Virtual Examination (For example: Writing of Examinations in public/private transport, noisy areas etc.)	Rustication: two (2) semesters
29.	Disobeying Examination Instructions	1st Timer: Warning 2nd Timer: Rustication: One (1) Semester
30.	Recidivism	Expulsion (Except cases listed in 25-28 above)
31.	Failure to appear before the Misconduct Panel	Suspension for 2 semesters after which non-appearance leads to expulsion
32.	Other related acts of Examination Misconduct not specifically stated	* Penalty shall be determined based on the recommendation of the Misconduct Panel.

SECTION 7.0 Courses for B.Sc. Geography Programme

CCMAS-Courses structure and Contents

This subsection presents the CCMAS courses, outlining their structure and providing a synopsis of the Geography programme.

CCMAS Course Structure for BSc Geography

100 Level First semester

Course Code	Course Title	Units	Status	LH	PH
GST 111	Communication in English	2	C	15	45
MTH 111	Elementary Mathematics I	2	C	45	-
SOC 111	Introduction to Sociology	2	C	30	-
GEO 111	Introduction Physical Geography	2	C	30	-
GEO 112	Introduction to Environmental Science	2	C	30	-
GEO 113	Introduction to Human Geography	2	C	30	-
DOU-GEO 111	Elementary Cartography I	3	C	30	15
	Total	15			

100 Second Semester

Course Code	Course Title	Units	Status	LH	PH
GST 121	Nigerian Peoples and Culture	2	C	30	-
MTH 121	Elementary Mathematics II	2	C	30	-
GEO 121	Introduction to Practical Geography	3	C	30	45
GEO 122	Local Field Studies	3	C	-	135
DOU-GEO 121	Elementary Spatial Statistics	3	C	30	
DOU-GEO 122	Air Quality Assessment and Management	3	C	30	
	Total	16			
	Sessional Total	31			

200 Level First Semester

Course Code	Course Title	Units	Status	LH	PH
GST 211	Philosophy, Logic and Human Existence	2	C	30	-
ENT 211	Entrepreneurship and Innovation	2	C	15	45
GEO 211	Introduction to Geomorphology and Soil Geography	2	C	30	-
GEO 212	Introduction to Climatology and Biogeography	2	C	30	-
DOU-GEO 211	Coastal Geography and Management	2	C	30	
DOU-GEO 212	Population Geography and Resources Management	2	C	30	
DOU-GEO 213	Elementary Cartography II	2	C	30	
DOU-GEO 214	Introduction to Waste Management	2	C	30	
	Total	16			

N:B: Direct entry students are to register for G.S 111,121

Second Semester

Course Code	Course Title	Units	Status	LH	PH
GEO 221	Spatial Organization of Society	2	C	30	-
GEO 222	Introduction to Remote Sensing and Geographic Information System	2	C	15	45
GEO 223	Field Course	3	C	-	135
GEO 224	Statistics for Geographers	2	C	30	-
DOU-GEO 221	Climatology and Coastal Ecology	2	C	30	
DOU-GEO 222	Climate Change in Coastal Environments and Management	2	C	30	
DOU-GEO 223	Oceanography and Hydro-geography	2	C	30	
DOU-GEO 224	Economic Geography	2	E	30	
	Total	15			
	Sessional Total	31			

Note: Direct Entry students are to take G.S. Courses stated in 100 level above

300 level First Semester

Course Code	Course Title	Units	Status	LH	PH
GST 311	Peace and Conflict Resolution	2	C	30	-
ENT 312	Venture Creation	2	C	15	45
GEO 311	History of Geographical Thought	2	C	30	-
GEO 312	Geomorphology	2	C	15	45
GEO 313	Science of Climate Change	2	C	30	-
GEO 314	Biogeography	2	C	30	-
GEO 315	Research Method I	2	C	30	-
GEO 316	Remote Sensing and Geographic Information System I	2	C	15	45
GEO 317	Quantitative Techniques in Geography	2	C	30	-
GEO 318	Field Course	2	C	-	90
DOU-GEO 311	Rural Geography and Settlements	2	C	30	
	Total	22			

Second Semester

Course Code	Course Title	Units	Status	LH	PH
GEO 399	Students Industrial Work Experience Scheme (SIWES)	15	C	-	270

	Total	15			
	Sessional Total	37			

400 Level First Semester

Course Code	Course Title	Units	Status	LH	PH
GEO 411	Systematic Geography of Nigeria	2	C	30	-
GEO 412	Contemporary Philosophy and Methodology in Geography	2	C	30	-
GEO 413	Research Methods II	2	C	30	-
GEO 414	Quantitative Techniques in Geography II	2	C	20	-
DOU-GEO 411	Pollution Meteorology and Spatial Spread of Pollutants	2	C	30	
DOU-GEO 412	Fundamentals of Hydrology	2	C	30	
DOU-GEO 413	Impact Assessment for Coastal Environments	2	E	30	
DOU-GEO 414	Geography of Africa	3	C	30	
DOU-GEO 415	Advanced Waste Management	2	E	30	
	Total	15			

Second Semester

Course Code	Course Title	Units	Status	LH	PH
GEO 499	Project	6	C	-	270
GEO 421	Applied Climatology	2	C	30	-
GEO 422	Remote Sensing and Geographic Information System II	3	C	30	45
DOU-GEO 421	Disaster Management in Coastal Environments	2	C	30	
DOU-GEO 422	Settlement Geography	2	E	30	
DOU-GEO 423	Epidemiology in Coastal Environment and Control	2	C	30	
DOU-GEO 424	Environmental Regulations and Policies	2	C	30	
	Total	17			
	Sessional Total	32			

Synopses/Course Description for B.Sc. Geography Programme

GST 111: Communication in English (2 Units C: LH 15; PH 45)

Course Contents

Sound patterns in English Language (vowels and consonants, phonetics and phonology). English word classes (lexical and grammatical words, definitions, forms, functions, usages, collocations). Sentence in English (types: structural and functional, simple and complex). Grammar and Usage (tense, mood, modality and concord, aspects of language use in everyday life). Logical and Critical Thinking and Reasoning Methods (Logic and Syllogism, Inductive and Deductive Argument and Reasoning Methods, Analogy, Generalisation and Explanations). Ethical considerations, Copyright Rules and Infringements. Writing Activities: (Pre-writing , Writing, Post writing, Editing and Proofreading; Brainstorming, outlining, Paragraphing, Types of writing, Summary, Essays, Letter, Curriculum Vitae, Report writing, Note making and Mechanics of writing). Comprehension Strategies: (Reading and types of Reading, Comprehension Skills, 3RsQ). Information and Communication Technology in modern Language Learning. Language skills for effective communication. Major word formation processes. Writing and reading comprehension strategies. Logical and critical reasoning for meaningful presentations. Art of public speaking and listening. Report writing.

MTH 111: Elementary Mathematics I (Algebra and Trigonometry) (2 Units C: LH 30)

Course Contents

Elementary set theory, subsets, union, intersection, complements, Venn diagrams. Real numbers; integers, rational and irrational numbers, mathematical induction, real sequences and series, theory of quadratic equations, binomial theorem. Complex numbers; algebra of complex numbers; the Argand diagram. De-Moivre's theorem, nth roots of unity. Circular measure, trigonometric functions of angles of any magnitude, addition and factor formulae.

SOC 111: Introduction to Sociology (2 Units C: LH 30)

This course will introduce you to the discipline of sociology. Sociology, and this class, how society functions and is organized and how society impacts and influences individual motivation, understanding, action, and well-being. Students are introduced to research methods and key issues including class, race, gender, sexuality, religion, globalization, education, health care, crime, the media, and the environment. Basic sociological ideas regarding social relations, social interaction, social structure, and social change are examined. The knowledge gained in this course will aid you in future studies within a variety of fields and careers, and it will encourage the development of critical thinking about important and timely issues.

GEO 111: Introduction to Physical Geography (2 Units C: LH 30)

Course Contents

Composition and structure of the lithosphere, atmosphere and hydrosphere; Nature, distribution, evolution and significance of the First Order Relief Forms of the earth. The earth's radiation, atmospheric and oceanic circulation systems. Introduction to the cycling of matter and energy in eco-systems.

GEO 112: Introduction to Environmental Sciences (2 Units C: LH 30)

Course Contents

Definitions of environmental science; multidisciplinary nature of environmental science; components of the environment; Environment concepts, Environment as a system; Energy systems in the atmosphere, biosphere, hydrosphere, and lithosphere. Current environmental issues, including climate change, air pollution and other natural hazards; erosion, drought, earthquakes, hurricanes, floods and the likes. Role of man in the environment.

GEO 113: Introduction to Human Geography (2 Units C: LH 30)

Course Contents

Scope of human geography and its relation to physical geography. World population: its distribution and patterns of growth/demographic characteristics of selected populations. Human settlements: evolution patterns and functions. Inter-relationships between urban and rural settlements. Environmental resources; the concept of resources: types of resources and their global distribution; relationship between resources and tertiary activities; impact of human activities on the environment at varying levels of technology and population densities; sustainable management of the resources; The roles of movement and flows of people, goods, energy and ideas.

DOU-GEO 111: Elementary Cartography (3 Units C: LH 30 PH 15).

Course contents

General introduction to cartography. History and evolution of Cartography. Contemporary approaches in cartography. The essence of cartography in geographic studies. Types of maps and their uses. Planning and Composition of maps. Text Material and Typography. Colour in Cartographic Design. Scale and types in map building. Map Reading. Map Projections. Basics of Symbolization in cartography. Symbolizing Geographic Data. Multivariate Mapping. Cartograms and Diagrams. Map scale and Projections. Qualitative and Quantitative Symbols in cartography. Multivariate and Multi-Element Maps.

GST 112: Nigerian Peoples and Culture (2 Units C: LH 30)

Course Contents

Nigerian history, culture and art up to 1800 (Yoruba, Hausa and Igbo peoples and culture; peoples and culture of the ethnic minority groups). Nigeria under colonial rule (advent of colonial rule in Nigeria; Colonial administration of Nigeria). Evolution of Nigeria as a political unit (amalgamation of Nigeria in 1914; formation of political parties in Nigeria; Nationalist movement and struggle for independence). Nigeria and challenges of nation building (military intervention in Nigerian politics; Nigerian Civil War). Concept of trade and economics of self-reliance (indigenous trade and market system; indigenous apprenticeship system among Nigerian people; trade, skill acquisition and self-reliance). Social justices and national development (law definition and classification. Judiciary and fundamental rights. Individual, norms and values (basic Nigerian norms and values, patterns of citizenship acquisition; citizenship and civic responsibilities; indigenous languages, usage and development; negative attitudes and conducts. Cultism, kidnapping and other related social vices). Re-orientation, moral and national values (The 3R's – Reconstruction, Rehabilitation and Re-orientation; Re-orientation Strategies: Operation Feed the Nation (OFN), Green Revolution, Austerity Measures, War Against Indiscipline (WAI), War Against Indiscipline and Corruption(WAIC), Mass Mobilization for Self-Reliance, Social Justice and Economic Recovery (MAMSER),

National Orientation Agency (NOA). Current socio-political and cultural developments in Nigeria.

MTH 122: Elementary Mathematics II (Calculus) (2 Units C: LH 30)

Learning Outcomes

Course Contents

Function of a real variable, graphs, limits and idea of continuity. The derivative, as limit of rate of change. Techniques of differentiation. Extreme curve sketching; Integration as an inverse of differentiation. Methods of integration, Definite integrals. Application to areas, volumes.

GEO 121: Introduction to Practical Geography (3 Units C: LH 30; PH 45)

Course Contents

Map reading: location; map scale; conventional signs; representation of relief and recognition of relief forms; analysis and interpretation of relief forms on maps; analysis and interpretation of cultural features on maps. Graphical and map presentation of geographical data; isoline maps; choropleth maps; dot maps; flow maps and many others.

GEO 122: Local Field Studies (2 Units C: PH 90)

Course Contents

Local field studies on vegetation, soils, settlements, earth's resources, landforms, market surveys, population, rural or urban surveys and weather.

DOU-GEO 121: Elementary Spatial statistics (2 Units C: LH 30)

Course contents

Introduction. Relevance of the statistical methods in geographical inquiry. Attributes of data sets in environmental inquiry. Making inferences from a population using sample data. The concept of hypotheses and how to test hypotheses. Typical errors associated with Hypotheses testing and how to avoid them. Populations and Sampling techniques. How to sample from large populations. Independent vs Paired Samples. Types of Data (Nominal, Ordinal, Interval and ratio data). Describing statistical diagrams based on produced shapes (Symmetric, bell-shaped, Symmetric, Not-bell-shaped or Bimodal). Outliers in a data set and how to handle them. Possible reasons for outliers and what to do about them. Measures of central tendencies (Mean, Median, and Mode) using examples of environmental data sets. The Influence of Outliers on measures of central tendencies. Describing Spread (Variability) using Range, Interquartile Range and Standard deviations. The Empirical Rule Restated for Standardized Scores (z-scores). Spatial data and spatial statistics. Exploratory spatial data analysis. Spatial weights and lagged variables. Global spatial autocorrelation. Local spatial autocorrelation. Spatial regression. Spatial regression applications. Geographically weighted regression. Exploratory spatial data analysis II. Spatial autocorrelation II.

DOU-GEO 122: Air quality Assessment and management (2 Units C: LH 30)

Course contents

Introduction to air pollution. Air-pollution-definition, sources, classification, types of air pollutants. sources & classification of air pollutants and air pollution effects (the impacts of air pollution on human health, materials and ecosystem). Air pollution monitoring, standards and regulations. Ambient air quality monitoring techniques. Selection of monitoring locations. Air pollution indices, standards, norms, rules and regulations and air quality management plan. Air pollution meteorology. Composition and structure of the atmosphere. atmospheric energy balance. Humidity, condensation, lapse rate and atmospheric stability, Wind rose diagram, Potential temperature. Dynamics of pollutant dispersion and disposal. Basic understanding of chemical and physical processes that transform and transport pollutants in the atmosphere. mechanism that lead to the formation and emissions of air pollutants. Dispersion of air pollutants and Gaussian plume models. Air pollution control and removal Methods. Air pollutants control concepts such as process change, fuel change; pollutant removal and disposal of pollutants; control devices and systems, removal of dry particulate matter, liquid droplets and mist removal, gaseous pollutants and odor removal, control of stationary and mobile sources. Indoor air pollution. Types of pollutants, sources & classification of indoor air pollutants and their effects. Communal engagement strategies for pollution reduction in the Niger Delta Region.

GST 211. Philosophy, logic and human existence (2 Units C: LH 30)

Course Contents

Scope of philosophy; notions, meanings, branches and problems of philosophy. Logic as an indispensable tool of philosophy. Elements of syllogism, symbolic logic— the first nine rules of inference. Informal fallacies, laws of thought, nature of arguments. Valid and invalid arguments, logic of form and logic of content — deduction, induction and inferences. Creative and critical thinking. Impact of philosophy on human existence. Philosophy and politics, philosophy and human conduct, philosophy and religion, philosophy and human values, philosophy and character moulding.

ENT 211 – Entrepreneurship and Innovation (2 Units C: LH 15; PH 45)

Course Contents

Concept of Entrepreneurship (Entrepreneurship, Intrapreneurship/Corporate Entrepreneurship,). Theories, Rationale and relevance of Entrepreneurship (Schumpeterian and other perspectives, Risk-Taking, Necessity and opportunity-based entrepreneurship and Creative destruction). Characteristics of Entrepreneurs (Opportunity seeker, Risk taker, Natural and Nurtured, Problem solver and change agent, Innovator and creative thinker). Entrepreneurial thinking (Critical thinking, Reflective thinking, and Creative thinking). Innovation (Concept of innovation, Dimensions of innovation, Change and innovation, Knowledge and innovation). Enterprise formation, partnership and networking (Basics of Business Plan, Forms of business ownership, Business registration and Forming alliances and joint ventures). Contemporary Entrepreneurship Issues (Knowledge, Skills and Technology, Intellectual property, Virtual office, Networking). Entrepreneurship in Nigeria (Biography of inspirational Entrepreneurs, Youth and women entrepreneurship, Entrepreneurship support institutions, Youth enterprise networks and Environmental and cultural barriers to entrepreneurship). Basic principles of e-commerce.

GEO 211: Introductory Geomorphology and Soil Geography (2 Units C: LH 30)

Course Contents

The meaning and scope of geomorphology, rock types, their origins and characteristics. Nature and origin of second order relief forms of the continents. Structural landforms. The meaning and scope of soil geography. Factors of soil formation. Zonal soils; azonal soils and intrazonal soils, Importance of landforms to human development.

GEO 212: Introduction to Climatology and Biogeography (2 Units C: LH 30)

Course Contents

The general circulation of the atmosphere – scales and laws of motion. Forces that drive the atmosphere. Major features and models of the circulation, weather-producing systems – air masses and fronts, frontal and non-frontal depressions; tropical systems. Climatic classifications and global systems of climate. Man's influence on the atmosphere. Basic structure and dynamics of plant communities, factors influencing plant growth. Survey of characteristics, distribution and controlling factors of principal or zoned vegetation types. Man's influence on vegetation.

DOU-GEO 211: Coastal Geography and Management (2 Units C: LH 30)

Course contents

Coastal culture. Migration, trade, and globalization. Coastal geopolitics. Maritime climates. Coastal geomorphology. Biological productivity. Coastal harvesting communities. Coastal development. Habitat loss. Pollution in coastal areas. Coastal protection; Coastal Hazards – erosion; Floods. Cost of hazards- Hazards – who pays? Climate change. Climate change impacts in coastal regions. Adaptive strategies to coastal hazards. The future of the coastal regions (Niger Delta Region).

DOU-GEO 212: Population Geography and resources management (2 Units C: LH 30)

Course contents

Introduction to Population Geography. Structure of the Population. Exploring Population Pyramids. Population Census. The Demographic Transition. Exploring the Momentum Factor. The World Population Patterns. Exploring World Fertility Patterns. Political Economy and Population. Population Growth and theories. Exploring Niger Delta Population Growth. The United Nations and Population. Exploring the Life Table. Introduction to Migration. Exploring the Hoover Index. Political Economy and Migration Theory. Exploring the Index of Dissimilarity. Nigerian immigration Law and Reforms 1960- date. Exploring the Entropy Index. Refugees and challenges.

DOU-GEO 213: Elementary Cartography II (2 Units C: LH 30)

Course contents
Introduction to Cartography. Map Projections I: The Geographic Coordinate System. Map Projects II: Projection Mechanics and Distortions. Introduction to ArcGIS and Map Shaper. Map Generalization I: Map Scale and the Cartographic Problematic. Map Generalization II: Generalization Operators. Introduction to Adobe Illustrator. Map Typography I: Label Appearance. Map Typography II: Label Placement. Type placement. Map Elements and Visual Hierarchy. Symbolization I: The Visual Variables. Symbolization II: Thematic Map Types. Choropleth Maps I: Normalization. Choropleth Maps II: Classification. Choropleth Maps III: Color Theory. Proportional Symbol Maps. Dot Maps and Dissymmetric Maps. Isoline Maps. Cartograms. Flow Maps.

DOU-GEO 214: Introduction to Waste Management (2 Units C: LH 30)

Course contents
An introductory waste management course for undergraduates could cover waste generation, collection, treatment, and disposal methods, emphasizing environmental and social impacts. The course would also explore waste management policies and regulations, and the principles of sustainability and circular economy. Finally, it would address various types of waste, including hazardous waste, and introduce students to waste management practices at different workplaces.

GEO 221: Spatial Organization of Society (2 Units C: LH 30)

Course Contents
Basic concepts of spatial organization: principles of classification of geographical phenomena; growth and spatial distribution of population. Production systems; typology and distribution; location, spacing and growth of settlements; movements over space and transport networks. Land-use; typology, patterns and interaction.

GEO 222: Introduction to Remote Sensing and Geographic Information System **(2 Units C: LH 15; PH 45)**

Course Contents
Fundamentals of remote sensing (Definition, history of remote sensing, components of remote sensing, electromagnetic radiation), RS process. Relationship between Remote sensing and Geographic Information System; and the applications of remote sensing remote sensing systems, Imageries across the spectrum, Image acquisition, Image restoration and enhancement, Image processing and interpretations, Image storage and retrieval formats; applications in agriculture, environmental resources management, monitoring and change detection, Urban planning.

GEO 223: Field Course (3 Units C: PH 90)

Course Contents
Detailed study of the geographical and geological forms and processes, the man and environment interactions, and the social and economic patterns as well the urban geography.

Their knowledge of cartography, remote sensing, GIS are all brought to bear in interpreting their environment.

GEO 224: Statistics for Geographers (2 Units C: LH 30)

Course Contents

The place of statistics in geography; Data description and characteristics; Discrete and continuous variables, Data Scales, Frequency distributions and graphical presentation; Measures of central tendency and variability. Methods of sampling; spatial sampling, description of point patterns; nearest neighbour analysis.

DOU-GEO 221: Climatology and coastal ecology (2 Units E: LH 30)

Course contents

Introduction to the concepts of climatology, meteorology and their relationships. The relevance of climatology to environmental sciences. The different approaches to study of climatology. Nature and scope of climatology. Types of climatology. Climatology as related to other sciences. Climatology and contribution of human in space. The techniques of the climatologists relative to that of meteorologists. Weather elements. Factors influencing weather and climate. Importance of measuring weather elements. The concept of the weather station. Effects of weather elements in coastal environments. Techniques for weather elements measurement. Weather elements forecasting. The energy budgets. Introduction to tropical climatology. Indices of climate in tropics. Climate model. Impact of tropical climatology. The characteristics of tropical montane climate. Effect of agricultural practice and climate change in tropics. The layer of tropical rainforest and plants and animal life. Climate change. Nature and component of the atmosphere. Structure of the atmosphere. Composition of the atmosphere. Solar energy and influence on the atmosphere. Importance of the atmosphere. Weather and climatic hazards in the tropics. Coastal urbanization and climate change. Coastal flooding. Elements of applied climatology relevant to environmental management in the Niger Delta region.

DOU-GEO 222: Climate change in coastal environments and management (2 Units C: LH 30)

Course contents

The concept of climate change. Science and fundamentals of climate change as a science. The interrelations between climate change science and other disciplines. Radiative forcing potential. Carbon dioxide equivalency. Natural climate forcing factors. Direct and indirect climate change impacts. Impacts of climate change on natural systems. Impacts of climate change on human systems. perturbation, resiliency, coping and adaptation capacities to climate change. Principles of adaptation to climate change. Greenhouse gases. Sources of greenhouse gases. Types of greenhouse gases. Characteristics of greenhouse gases. Dangers of greenhouse gases to the environment. Dangers of greenhouse gases to man and animals. Mitigation strategies for greenhouse gases. Climate change mitigation. Climate change manifestations in the Niger Delta Region. Causes of climate change in the Niger Delta Region. Consequences of climate change in the Niger Delta Region. Mitigation and adaptation strategies to climate change in the Niger Delta Region.

DOU-GEO 223 Oceanography and Hydro-geography (2 Units E: LH 30)

Course outline

Oceans and oceanography world ocean, origin, history of oceanography, challenges. Ocean crust and bathymetry layered Earth, isostatic equilibrium, continental margins. ocean basins. Plate tectonics seafloor spreading, convection, paleomes, hotspots. Plate boundaries mid-ocean ridges, subduction zones, transforms. Marine sediments sizes, Stokes Law, terrigenous, calcareous, siliceous. Seawater properties heat, temperature, density, light, sound. Chemistry of seawater salinity, steady state, residence time, inputs, outputs. oceans to seawater. Biogeochemical cycles (photosynthesis, respiration, Redfield ratios, nitrogen, phosphorous, oxygen, Carbon cycle fluxes, DIC, alkalinity, pH). Global atmospheric circulation heat transport, Coriolis effect, atmospheric cells. Upper ocean circulation, Ekman transport, geostrophic, gyres. Upwelling and El Niño. Coastal and equatorial upwelling, ENSO dynamics. Deep ocean circulation vertical structure, thermohaline flow, heat transport. Waves at sea, wave forces. Deep vs. shallow, wind waves, sea state. Chemistry to deep ocean circulation. Waves at the shore breaking. Refraction, seiche, tsunami. Tides Earth-moon-sun gravitation, amphidromic points. Coasts primary vs. secondary, beaches, reefs, erosion. Life in the sea classification, adaptations, environments. Primary producers' production, phytoplankton, seaweeds, seasonal cycles. Fishes and cetaceans fish classes, toothed whales, baleen whales. Benthic marine communities' ecology. Rocky vs. sandy shores, coral reefs, deep sea. Chemosynthetic communities' hydrothermal vents, cold seeps, whale falls. Marine resources. Law of the Sea. Fossil fuels, direct energy, fisheries. Marine pollution toxicity (oil, sewage, eutrophication, plastics). Global warming and the ocean. Greenhouse effect, ocean warming, and Sea level rise. Acidification and carbon sequestration.

DOU-GEO 224: Economic Geography (2 Units C: LH 30)

Course contents

Introduction. History of Economic Geography. Spatial concepts in economic geography. Supply, demand and economic concepts. Globalization. Population. World patterns of population. Indices of population distribution and growth. Models and theories of population growth. Global population issues. Population structure. Migration and challenges. Primary Sector Activities. Global resource distribution. Models of resource activities. Contemporary regional resource issues. World agricultural patterns. Contemporary agricultural issues. Environmental, cultural and other factors. Secondary Activities. World manufacturing patterns. Classical Industrial Location Theory. Environmental, cultural and other factors. Other models of industrial location and transformation. Fordism and Post-Fordism. Contemporary industrial issues and globalization. Tertiary, Quaternary and Quinary Activities. Classification of the sectors. Central Place Theory and related models. Analysis of contemporary economic issues in the world. Environmental, cultural and other factors. Transportation. Transportation models and indices. Case studies of selected transportation systems. Analysis of contemporary issues in transportation. Urban Issues. Models and theories of urban land use and urban land rent. Contemporary issues confronting Niger Delta Cities. Third World urbanization. Theories of Economic Development. Measures and definitions of development. Theories of development. Role of the state in development. Contemporary issues. International Trade.

GST 311- Peace and Conflict Resolution (2 Units C: LH 30)

Course Contents

Concepts of Peace, Conflict and Security in a multi-ethnic nation. Types and Theories of Conflicts: Ethnic, Religious, Economic, Geo-political Conflicts; Structural Conflict Theory, Realist Theory of Conflict, Frustration-Aggression Conflict Theory. Root causes of Conflict and Violence in Africa: Indigene and settlers Phenomenon; Boundaries/boarder disputes; Political disputes; Ethnic disputes and rivalries; Economic Inequalities; Social disputes; Nationalist Movements and Agitations; Selected Conflict Case Studies – Tiv-Jukun; Zango Kartaf, Chieftaincy and Land disputes. Peace Building, Management of Conflicts and Security: Peace & Human Development. Approaches to Peace & Conflict Management --- (Religious, Government and Community Leaders). Elements of Peace Studies and Conflict Resolution: Conflict dynamics assessment Scales: Constructive & Destructive. Justice and Legal framework: Concepts of Social Justice; The Nigeria Legal System. Insurgency and Terrorism. Peace Mediation and Peace Keeping. Peace & Security Council (International, National and Local levels) Agents of Conflict resolution – Conventions, Treaties Community Policing: Evolution and Imperatives. Alternative Dispute Resolution, ADR. Dialogue b). Arbitration, c). Negotiation d). Collaboration. Roles of International Organizations in Conflict Resolution.

(a). The United Nations, UN and its Conflict Resolution Organs. (b). The African Union & Peace Security Council (c). ECOWAS in Peace Keeping. Media and Traditional Institutions in Peace Building. Managing Post-Conflict. Situations/Crisis: Refugees. Internally Displaced Persons, IDPs. The role of NGOs in Post-Conflict Situations/Crisis.

ENT 312 – Venture Creation (2 Units C: LH 15; PH 45)

Course Contents

Opportunity Identification (Sources of business opportunities in Nigeria, Environmental scanning, Demand and supply gap/unmet needs/market gaps/Market Research, Unutilised resources, Social and climate conditions and Technology adoption gap). New business development (business planning, market research). Entrepreneurial Finance (Venture capital, Equity finance, Micro finance, Personal savings, small business investment organizations and Business plan competition). Entrepreneurial marketing and e-commerce (Principles of marketing, Customer Acquisition & Retention, B2B, C2C and B2C models of e-commerce, First Mover Advantage, Ecommerce business models and Successful E-Commerce Companies,). Small Business Management/Family Business: Leadership & Management, Basic book keeping, Nature of family business and Family Business Growth Model. Negotiation and Business communication (Strategy and tactics of negotiation/bargaining, Traditional and modern business communication methods). Opportunity Discovery Demonstrations (Business idea generation presentations, Business idea Contest, Brainstorming sessions, Idea pitching). Technological Solutions (The Concept of Market/Customer Solution, Customer Solution and Emerging Technologies, Business Applications of New Technologies - Artificial Intelligence (AI), Virtual/Mixed Reality (VR), Internet of Things (IoTs), Blockchain, Cloud Computing, Renewable Energy and the likes. Digital Business and ECommerce Strategies).

GEO 311: History of Geographical Thoughts (2 Units C: LH 30)

Course Contents

History of geographical thoughts in relation to science. The role of theory on science and geography. Methods in natural and social sciences. The nature and problems in geographical research. Course studies from Greek time up to the present. Frontier in contemporary geographical thought.

GEO 312: Geomorphology (2 Units C: LH 30)

Course Contents

Key content includes Nature and scope of geomorphology: aims and objectives of geomorphology. Developments in geomorphic thought; Approaches to geomorphological studies, Conceptual developments in geomorphology. Landforms, their formative agents and processes; classification of landforms; volcanic and tectonic landforms, landforms of weathering and mass wasting, fluvial landforms, coastal landforms, Aeolian landforms, glacial landforms. Introduction to applied geomorphology.

GEO 313: Science of climate change (2 Units C: LH 30)

Course Contents

Subject-matter and scope of climatology. Historical developments of meteorology and climatology. Physical climatology: Solar radiation, atmospheric temperature, atmospheric moisture, air masses, fronts and storms; winds and the global air circulation system. Regional climatology: classification of climates; examples of climate classificatory systems; climatic regions of the world, the science and politics of climate change; adaptation and mitigation of climate change, climate-preneurship to leverage the opportunities presented by climate change; global strategies and the role(s) of institutions and organizations: UNFCCC, WMO, UNEP, IPCC. Manifestations of climate change; vulnerability to climate change. Adaptation to climate change. Communicating climate change. Climate change versus environmental change. Nigeria's response to climate change, The Nationally Determined Contributions (NDC).

GEO 314: Biogeography (2 Units C: LH 30)

Course Contents

Principles and concept of biogeography. Vegetation types; factors affecting flora and fauna distribution at various scales. The concept of the ecosystem. The structure and functioning of terrestrial and aquatic ecosystems. Vegetation changes through time: adoption, cyclical, fluctuations, succession and climax. Nutrient cycling, the role of man in ecosystem modification, soil studies and many others.

GEO 315: Research Method I (2 Units C: LH 30)

Course Contents

Understanding basic elements of research methods in geography: Selection of a research topic; definition of study problems and objectives; Formulation of research hypotheses; Experimental design for collection and analysis of data; writing a research proposal.

GEO 316: Remote sensing and Geographical Information System I (2 Units C: LH 15; PH 45)

Course Contents

Introduction to Remote sensing, Key contents include: Elements of remote sensing system, Techniques of remote sensing. Interpretation and analysis of visual and digital imageries. remote sensing application, Integration of remote sensing and GIS in geographical research, case studies GIS and the information age, Capabilities of GIS, Spatial data and their sources for GIS analysis, Raster and Vector data, Data Entry, GIS analysis and modelling data issues and problems.

GEO 317: Quantitative Techniques in Geography (2 Units C: LH 30)

Course Contents

Introduction to descriptive and inferential statistics, parametric and non-parametric tests; Survey design and sampling techniques, Elementary statistical analysis of spatial patterns.

GEO 318: Field Course (2 Units C: PH 90)

Course Contents

Eight to ten days intensive field studies designed to illustrate the application of theories, concepts and techniques of geographical analysis. Examples of field study activities include rural land use studies, urban studies, vegetation and soil studies, landform studies and market surveys. It is expected that the students should travel outside the State where the University is located so they can be exposed to different geographic features.

DOU-GEO 311: Rural Geography and Settlements (2 Units C: LH 30)

Course Contents

Rural Geography in Nigeria explores the spatial, social, economic, and environmental dynamics of rural areas across the country. The course begins with an introduction to rural geography, defining its scope, relevance, and evolution as a sub-discipline of human geography. It delves into key concepts and theoretical frameworks, including the rural-urban dichotomy, central place theory, von Thünen's agricultural land-use model, and the core-periphery theory, which offer lenses through which to interpret rural patterns and development. Students examine the physical and environmental characteristics of rural Nigeria, including the diverse climatic zones, vegetation belts, soils, and topographical features that shape rural livelihoods. Attention is then given to rural settlements, analysing their types, patterns, morphology, and the geographical and cultural factors influencing their distribution. The course explores demographic characteristics, such as population density, composition, fertility, migration, and rural-urban mobility, highlighting trends in rural depopulation and youth migration. Agricultural systems and land use form a core area, covering subsistence and commercial farming, cropping patterns, land tenure systems, and the implications for food security and sustainability. Students also investigate rural livelihoods, focusing on both agricultural and non-farm activities like fishing, trading, and artisanal crafts, along with the role of the informal economy. The discussion of infrastructure and social services considers the state of transport, electricity, ICT, water supply, healthcare, and education in rural settings, emphasizing their impacts on quality of life and development potential. The course critically assesses rural poverty, its spatial distribution, causes, and manifestations, using indicators and case studies. Gender and social dynamics are explored to understand the roles and challenges faced by women, youth, and marginalized groups, as well as the influence of traditional values and cultural institutions. The role of traditional institutions and governance structures, such as village chiefs, elders, and community-based organizations, is examined in the context of conflict resolution, resource management, and participatory development. A key focus is placed on environmental challenges and climate change, including deforestation,

desertification, soil erosion, and the growing impacts of climate variability on agriculture and livelihoods. The course also analyses rural-urban linkages, looking at the flows of people, goods, remittances, and services, and their implications for spatial integration and rural transformation. Students explore government policies and rural development initiatives, including historical programs like Operation Feed the Nation, DFRRI, and NAPEP, and contemporary interventions such as the NDDC, assessing their design, implementation, and outcomes. Further attention is given to contemporary issues such as insecurity, herder-farmer conflicts, displacement, land grabs, and the environmental effects of resource extraction. The course concludes by examining strategies for sustainable rural development, including community-driven approaches, the role of NGOs and microfinance, youth empowerment, gender equity, and the application of ICTs and innovation in transforming rural spaces in Nigeria.

GEO 399: Students Industrial Work Experience Scheme (6 Units C: PH 270)

Course Contents

Geographers are sent to institutions such as armed forces, Ministries, Departments and Agencies of Government, Schools, Boundary Commission, National Population Commission as well as the Private organizations. Depending on the nature of their places of attachment, they are to participate in activities like map making, planning practices land, soil and water resources evaluation; human and socio-economic surveys, basic operation of field and laboratory equipment and facilities, practical and operational climatology, instrumentation in geography; and any other assignment given to them by their industrial based Head of Department. At the end of the exercise, they are to report on the entire experience.

GEO 411: Systematic Geography of Nigeria (2 Units C: LH 30)

Course Contents

Spatial patterns: ecological zones; growth and distribution of population; natural resources base; agricultural production and marketing systems; industrialization: transport development; internal and external exchange. Concepts and models; river basins; city and community regions; migration flows, urban systems; modernization; development strategies.

GEO 412: Contemporary Philosophy and Methodology in Geography (2 Units C: LH 30)

Course Contents

Paradigm shifts within scientific approach to geographical research, quantification and classification in geography; theories and models in geography; systems analysis in geography and spatial thinking skills.

GEO 413: Research Method II (2 Units C: LH 30)

Course Contents

Area delineation of source of data, creation of research instruments, formal acquisition of data, appropriate statistical analyses, writing up of research finding and conclusion.; application of research findings in the real world.

GEO 414: Quantitative Techniques in Geography II (2 Units C: LH 30)

Course Contents

Introduction to models and their testing, Advanced statistical techniques, Inferential Statistics; qualitative data analysis, spatial data analysis. Introduction to statistical behavioural models. Use of statistical software (SPSS, EPI INFO, MINITAB, STRATA, EViews) in analyzing Geographic data.

DOU-GEO 411: Pollution meteorology and spatial spread of pollutants (2 Units C: LH 30)

Course contents

The Earth's Atmosphere (chemical structure). Sources of Air Pollution. Effects of Air Pollution. Air Pollution Policy. Air Pollution Controls. The Earth's Atmosphere (thermal structure). Atmospheric Transport mechanics. Wind profiles. Atmospheric diffusion. Gaussian plume equation. Applications of Gaussian plume models. Plume rise. Design of air quality monitoring networks. Pollutants and concentration units. Air quality standards; aerosols and visibility. Solar radiation, stability. Turbulence. Turbulence statistics. Mixing length models of turbulence. Boundary Layer Processes. Atmospheric Removal Processes. Air Pollution Monitoring. Air Pollution Modelling. Alternative solutions to the atmospheric diffusion equation. Pollution and meteorology in the Niger Delta Region any links?

DOU-GEO 412: Fundamentals of Hydrology (2 Units C: LH 30)

Course contents:

Water for the world, basic issues, demand/supply patterns and trends. The global hydrological cycle. The global hydrological system, fluxes, reservoirs, and residence times. Evaporation, condensation, precipitation. Regional water balances and resources. Hydrological effects of climate change. Land-atmosphere interactions. water and energy balance, subsurface flow, infiltration and soil moisture, runoff and groundwater flow. Structure and properties of water. Principles of fluid dynamics (forces on fluids, fluid statics/dynamics, laminar and turbulent flow). Open channel hydraulics. Discharge measurements using control structures. Velocity distribution in open channels. Catchment hydrology: Streams, floods and droughts. Hydrographs; nature and cause of floods, flood routing, estimating magnitude and frequency of extreme events, patterns, cycles and teleconnections. Groundwater flow: Darcy's law, hydraulic head, conductivity, permeability, storativity, and porosity, water in natural formations, steady groundwater flow, flow nets, heterogeneity and anisotropy. Groundwater transport (advection, dispersion, adsorption, decay). Tracer techniques. Water in the unsaturated zone (forces on water in the unsaturated zone; infiltration). Monitoring and assessing processes: remote sensing and hydrological networks; measuring precipitation, evaporation, evapotranspiration, runoff, subsurface water. Modelling hydrologic processes: groundwater flow and transport models; modelling runoff. Water quantity: vegetation change, desertification, irrigation and reservoirs, urbanization, over exploitation of groundwater, land drainage and channel modification, climate change. Water quality: acidification of surface waters; salinization, major sources of pollution (Surface Water and Ground Water) and controlling water quality. Managing water resources for sustainable future.

DOU-GEO 413: Impact assessment for coastal environments (2 Units E: LH 30)
Course contents
Definition of environment. Background information in environment and Sustainable development. Introduction to Environmental Impact Assessment (EIA). Why is EIA important for coastal environments? History and development of Environmental Impact Assessment. Definitions of Environmental Impact Assessment by regions. Benefits and Directive of Environmental Impact Assessment. The Environmental Impact Assessment Process. Types of Assessments, similarities and dissimilarities. Environmental Assessments. Environmental Impact Statement. Basic Steps in the Process (Alternative, Screening, Scoping, Impact analysis, Mitigation, Follow up and public involvement). Impact prediction methodologies and mitigation measures for Air. Impact prediction methodologies and mitigation measures for Surface and ground water. Impact prediction methodologies and mitigation measures for Biologic. Impact prediction methodologies and mitigation measures for Noise. Impact prediction methodologies and mitigation measures for Cultural and socioeconomic. Strategic Environmental Appraisal for coastal regions (Niger Delta in perspective).

DOU-GEO 414: Geography of Africa (2 Units E: LH 30)
Course contents

Introduction. The concept of a region. The physical environment of Africa and associated challenges. The patterns of human activity. The geographical basis of regional co-operation and development in Africa. The physical geography of Africa: geology, soils, relief. climate and vegetation; Natural resource endowments. patterns of economic activity such as mining, agriculture, pastoralism. Transportation and development in Africa. Industrialization and trade. population characteristics and distribution. The geographical bases of regional and continental cooperation. Urbanization and migration in Africa. The politics of Africa in relation to its development. Urbanization: rural-urban contrasts, levels, causes and effects of urbanization. Migration: internal and international migration: sources, causes and effects. Environmental issues in Africa. Deforestation & desertification. Land degradation. Sanitation, health and disease ecology. Geography of North Africa. Geography of West Africa. Geography of East Africa. Geography of South Africa. Geography of Central Africa.

DOU-GEO 415: Advanced Waste Management (2 Units E: LH 30)
Introduction to the concept of waste management. Definition of terms. Classification of wastes: By physical state, by origin. Type and characteristics of wastes. Municipal solid wastes and their management: Landfills, Sanitary landfill, Incineration plants, Industrial/hazardous wastes, Biomedical/Hospital wastes. Collection systems. Waste disposal methods and sites and impact assessment. Solid waste management: Segregation, Recycling and the recycling process, Agricultural wastes: Livestock wastes, Fertilizers, Pesticides. Introduction to waste treatment processes and return of treated wastes to the environment. Management of livestock manure, Composting: Definition of terms in composting, the composting procedure. Liquid wastes: Fundamentals of waste water treatment processes. Sewerage and waste water treatment. Other forms of wastes: Liquid manure, Petroleum products as wastes, Gaseous wastes, nuclear wastes. Ecological sanitation (ECOSAN): Definition of terms, Advantages of ECOSAN, Disadvantages of ECOSAN, Construction of ECOSAN, Operation and maintenance of ECOSAN. Climate change: Definition of terms. Opportunities for mitigating and adapting to climate change.

GEO 499: Final Year Project (6 Units C: PH 270)

Course Contents

The Final year Project should cover but not limited to the following topics: soil, vegetation, map interpretation, remote sensing, GIS, regional, medical geography, disease ecology, climate change, hydrology, population studies, market studies among others. An individual study chosen by the student(s) with the approval of the Department should be carried out under the supervision of a senior member of staff. This will normally be started in the second semester of the third year. The final report of not more than 10,000 words in length should be submitted by the last week of second semester lectures in the fourth year.

GEO 421: Applied Climatology (2 Units C: LH 30)

Course Contents

Bioclimatology, agro climatology, climatology and the built environment, climate change and its impact on rural and urban environments, climate change and sustainable development goals, and climate change and its implications on humans and various human and economic activities. Definition and delimitation of the "Tropics" Rationale for studying the climatology of the tropics. Radiation conditions in the tropics. Temperatures in the tropics. Tropical precipitation. Tropical disturbances: Tropical weather systems. Applied tropical climatology: Tropical agro climatology; tropical bioclimatology, global circulation system and its influence in the tropics, links between the tropical climates and the temperate climates, climate change and climate-premiership.

GEO 422: Remote Sensing and GIS II (3 Units C: LH 30; PH 45)

Course Contents

Remote Sensing analytic digital image processing system. Fundamentals (Computers imaging systems, image representation- colour space, image sampling quantization, quality measurement, data products, storage and retrieval- Photowritten systems, dip systems and software. Preprocessing (Encoding and decoding, sources of image degradation, atmospheric, radiometric and geometric errors, systematic and non-systematic correction, image geometry operations. Image Enhancement (Image characters, histogram, scatter plots, statistics and spatial statistics for processing, image models, spatial transforms, enhancements: radiometric and geometric operators, Fourier transforms, scale space transforms, image fusion, texture analysis. Image Classification (Spectral discrimination pattern matching Baye's theorem-signature and feature extraction- training and classification, supervised and unsupervised methods error matrix and accuracy estimates. Image Analysis (Concept of uncertainty, fuzzy partitioning, neural nets, subpixel classification concept, pattern recognition, feature descriptors). Remote sensing application, Integration of Remote Sensing and GIS in geographical research, case studies. (Basic concepts of Data, Information, File system vs DBMS, Data models, Hardware and software requirements, Database Management Systems, Database languages, Database Architecture, users and administrators, Classification of Database Management Systems. Relational Data Model (Relational model, Data Structure, Constraints, Key, Codd's Rule, Relational Algebra, Fundamental operations, Additional operations, Extended operations Null values. SQL (SQL, Data Definition, Basic structure of SQL queries, set operations, Aggregate, Functions, Null values, Nested sub queries, Complex queries, Views, Embedded SQL, Dynamic SQL, Triggers. Database Design and Management (Design process, Entity Relationship Model, Constraints, EER, Diagrams, Atomic domain and First Normal Form, Functional Dependency, Decomposition using Functional dependencies, Normalization using Multi-Valued Dependencies and Join Dependencies, Basic concepts of file organizations, indexing and hashing, Database recovery techniques, Database Security,

Handling Spatial Database. Accessing Data Using Ado.Net and Vb.Net (ADO.Net Object Model using OLE DB managed provider, other data providers, Accessing XML data, Building Windows).

DOU-GEO 421: Disaster management in coastal environments (2 Units E: LH 30)
Course contents

Introduction and definitions of key course concepts such as "Disaster" and "preparedness". Various phases of disaster management and issues concerning planning and policies in those phases. Comprehensive emergency management. The role (s) of federal, state, and local governments in disaster planning and policies. Mitigation planning and policy strategies. Comprehensive emergency management and contingency planning. Factors affecting short and long-term recovery and rebuilding: the role of planners and policy-makers. Factors that exacerbate disaster vulnerabilities (natural, physical, social, economic and political). Factors that give rise to differential vulnerabilities and levels of community resilience. Knowledge and capabilities to assess and manage vulnerabilities through disaster planning and policy-making. Data, methods, tools, and geospatial techniques used for vulnerability assessments and knowledge building. Competencies to utilize mapping in mitigation planning and response operations. Disaster preparedness. Disaster preparedness in coastal environments (Niger Delta Region as case study). Problems of disaster management in coastal environments in the developing and developed countries. Disaster preparedness in the Niger Delta Region. The politics of disaster management. Disaster Adaptation techniques in coastal environments.

DOU-GEO 422: Settlement Geography (2 Units E: LH 30)
Course contents

Introduction to settlement geography. Human development. Factors influencing human settlements location. Landscape designs. Parks and reserves. Climate and settlement patterns. Rural, urban land use and environmental quality. Functions of settlements. Rural land use. Urban land use. Environmental quality. Impact of human settlement and development on the environment. Culture and environment patterns. Culture: health and safety. Environmental ethics. State of the environment. Environmental education. Sustainable development. Human settlements and development projects and their environmental impacts.

DOU-GEO 423: Epidemiology in Coastal Environment and Control
(2 Units C: LH 30)

Epidemiology in Coastal Environment and Control explores the interaction between environmental factors specific to coastal regions and the patterns, causes, and control of diseases. The course begins with an introduction to epidemiology, including key definitions, scope, and the relevance of epidemiological methods in coastal settings. It covers the ecological and climatic characteristics of coastal environments, examining how humidity, salinity, tides, and seasonal rainfall patterns affect disease transmission. Emphasis is placed on waterborne and vector-borne diseases common in coastal regions, such as cholera, typhoid, malaria, schistosomiasis, and dengue, including their etiology, distribution, and burden on public health. The course also examines sanitation and waste management practices in coastal settlements, linking poor hygiene and inadequate infrastructure to disease outbreaks. Students will analyze coastal pollution and health risks, focusing on the impact of industrial discharge, oil spills, and agricultural runoff on marine and human health. The role of population dynamics and urbanization is explored, particularly the growth of informal settlements, overcrowding, and limited access to healthcare in coastal cities. The course introduces epidemiological tools and

surveillance methods, such as GIS mapping, disease registries, and participatory monitoring, for tracking and predicting disease spread. It investigates climate change and emerging diseases, highlighting how sea level rise, coastal erosion, and ecosystem changes contribute to new health risks. A key component involves public health intervention strategies, including vaccination campaigns, environmental sanitation, and risk communication tailored to coastal populations. The policy and institutional framework for disease control in coastal regions is reviewed, with attention to national agencies, international collaborations, and legal instruments. Case studies from the Niger Delta, Lagos coastline, and global coastal regions are used to illustrate practical challenges and solutions. The course also covers community-based health promotion and education, stressing the importance of local knowledge and participation in disease prevention. An exploration of environmental justice and health equity highlights disparities in exposure and access to healthcare among vulnerable coastal populations. Finally, the course concludes with sustainable strategies for integrated coastal health management, advocating for holistic, cross-sectorial approaches to disease control and environmental protection in coastal areas.

DOU-GEO 424: Environmental Regulations and Policies (2 Units C: LH 30)

Environmental Regulations and Policies is a course that examines the legal and institutional mechanisms for managing environmental issues at national and international levels. It begins with an introduction to the concepts, significance, and evolution of environmental regulations, establishing the foundation for understanding environmental governance. The course explores the legal frameworks for environmental protection in Nigeria, including key laws such as the NESREA Act and the Environmental Impact Assessment (EIA) Act. It also addresses international environmental agreements and conventions like the Paris Agreement, Kyoto Protocol, and Basel Convention, and their relevance to Nigeria's environmental commitments. Attention is given to the institutional frameworks and regulatory agencies, including the roles and responsibilities of bodies like NESREA, FMEnv, NEMA, and state-level agencies such as LASEPA. A critical topic is the Environmental Impact Assessment process, focusing on its purpose, procedures, and enforcement in development planning. The course then reviews pollution control regulations, highlighting laws that govern air, water, soil, and noise pollution. It examines waste management policies, covering strategies for handling solid, hazardous, biomedical, and electronic waste in compliance with environmental standards. The course also addresses climate change laws and policies, including Nigeria’s Climate Change Act and its commitments under Nationally Determined Contributions (NDCs). Emphasis is placed on environmental justice and public participation, exploring the rights of citizens to access environmental information and participate in decision-making processes. Finally, the course concludes with an analysis of the challenges and prospects of environmental regulation, considering issues such as poor enforcement, institutional weaknesses, and opportunities for reform, innovation, and improved environmental governance.

List of Departmental Staff

Geography Departmental staff comprises Teaching Staff, Academic Advisers, and Non-Teaching (Administrative) Staff. The following tables present their details, including names, disciplines, qualifications, ranks/designations, areas of specialization, and other relevant information.

Table L1: Academic (Teaching Staff) List

S/N	NAME	QUALIFICATIONS	AREA OF SPECIALIZATION	RANK	Employment Status
1	F. OZABOR	PhD (Geography & Environmental Management), UNIPORT, 2018. Msc (Geography & Regional Planning), DELSU, 2014. B.Sc. (Geography and Regional Planning), DELSU, 2010	Geography, Climatology and Environmental Management	Senior Lecturer/Ag.HOD	Full time
2	J.O.A. MOGBORUKOR	Ph.D. (Geography and Regional Planning) (AAU), 2012. M.Sc. (Geography and Regional Planning) (DELSU), 2003. B.Sc. (Geography and Regional Planning), 1998.	Geomorphology/Environmental Resources Management	Professor	Full time
3	G.O, ATEDHOR	Ph.D. Geography and Regional Planning UNIBEN (2014);M.Sc Geography and regional Planning UNIBEN (2006); B.Sc Geography and Regional Planning UNIBEN (2000).	Climatology/ Environmental Management	Professor	Full time
4	E. J. Dudu	Ph.D. (Geography), KSU, 2015. M.Sc. (Geography), UNIBEN, 2007. B.Sc. (Geography and Regional Planning) UNIBEN, 1998.	Population studies/ Medical Geography	Senior Lecturer	Full time
5	O. Ushurhe	PhD (Geography and Regional Planning), DELSU, 2013. M.Sc. Geography and Regional Planning	Hydrology and Water Resources Management.	Senior Lecturer	Full time

		(Hydrology and Water Resources Management), DELSU, 2007. B.Sc. Geography, UNN, 1990.			
6	L. ARISABOR	PhD (Geography & Regional Planning), DELSU, 2024 Msc (Geography & Regional Planning), DELSU, 2011. B.Sc. (Geography and Regional Planning), DELSU, 2007	Transportation Studies, Environmental Management, Population Studies.	Lecturer I	Full time
7	M. A. ASHIKODI	PhD Geography & Regional Planning (Environmental Management and Assessment), UNIBEN, 2021. M.Sc Geography & Regional Planning (Environmental Management and Assessment), UNIBEN, 2014. B.Sc Geography & Regional Planning, UNIBEN, 1999.	Environmental Management and Assessment	Lecturer II	Full time
8	P.I. ONYEMENAM	Msc (Urban & Regional Planning), UI, 2015. B. Tech. (Urban and Regional Planning), FUT Yola, 2011.	Human Settlement Development Planning and Management.	Lecturer II	Full time
9	E.E. ESOSUAKPO	PhD Geography and Regional Planning (Climatology), DELSU, 2023. M.Sc. Geography and Regional Planning (Climatology), DELSU, 2018. B.Sc. (Geography and Regional Planning), UNIBEN, 1998.	Climatology and Environmental Management	Lecturer II	Full time

Table L2: Academic Level Advisers

Level	Names of Advisers	Qualifications
100	M. A. ASHIKODI	PhD Geography & Regional Planning (Environmental Management and Assessment), UNIBEN, 2021. M.Sc Geography & Regional Planning (Environmental Management and Assessment), UNIBEN, 2014. B.Sc Geography & Regional Planning, UNIBEN, 1999.
200	E.E. ESOSUAKPO	PhD Geography and Regional Planning (Climatology), DELSU, 2023. M.Sc. Geography and Regional Planning (Climatology), DELSU, 2018. B.Sc. (Geography and Regional Planning), UNIBEN, 1998.

Table L2: List of Technical Staff

S/N	Name of Technical Staff	Qualification and Dates Obtained	Area of Specialization	Rank	Employment Status
1	Mr OGBE Innocent	MSc (Geography and Regional Planning) UNIBEN (2012); B.Sc. (Geography and Regional Planning) DELSU, (2005)	Urban Geography, Regional Geography, Population Studies.	Senior Lab Technologist / 12-03-2024	Full-time
2	Mrs UMOLE Itohan	B.Sc. Geography and Regional Planning, (UNIBEN), 2020.	Geography	Lab Technologist II / 05-07-2024	Full-time

Table L3: Non- Non-teaching Staff (Administrative)

S/N	Name of Staff	Qualification and Dates Obtained	Area of Specialization	Rank	Employment Status
1	Mrs. IJEH-ISIEKWENE Perpetual	B.Sc. Geography and Meteorology (2012)	Geography and Meteorology	Administrative Officer II	Full-time
2	Mrs. NWALOR Chinaza Canicemary	B.Sc. Mass Communication (2010)	Communication	Administrative Officer	Full-time
3	Mrs Sanni Oghenetejiri Bliss	B. Sc Agricultural Economics (2018)	Agriculture	Administrative officer II	Full-time

4	Mr. OKWEGBE Augustine	N.D. Business Administration and Management (2002).	Business Administration	Higher Executive Officer	Full-time