HIGHER EDUCATION AUTHORITY(HEA)

APPLICATION FOR ACCREDITATION OF LEARNING PROGRAMMES FOR HIGHER EDUCATION INSTITUTIONS

The Higher Education Act No. 4 of 2013;

Part IVA, Section 23 of the Higher Education (Amendment) Act No. 23 of 2021

Part IV, Section 20 (h), Statutory Instrument No. 25 of 2016

PART I: INSTRUCTIONS AND INSTITUTIONAL DETAILS

A. INSTRUCTIONS

1. A Higher Education Institution applying for accreditation of learning programmes Should complete this Application Form and forward it to:

The Director General
Higher Education Authority
P.O. Box 50795 Ridgeway
Dedan Kimathi Road
Mukuba Pension House
LUSAKA

2. Each application must be accompanied by proof of payment of fees for accreditation of a learning programme of **K5,000 per programme**. The application fee is non - refundable

3. Applications with incomplete, missing information or that do not follow the prescribed format will be rejected

4. All information relating to the learning programme including reference to policy documents should be embedded in the application form
5. All applications should include a needs assessment and stakeholder engagement report(s)

6. In the development of learning programmes, Higher Education Institutions should refer to the Zambia Standards and Guidelines for Quality Assurance in Higher Educations (ZSG – QA), Open and Distance Learning guidelines and Learning Programme Core Elements (where applicable), Zambia Qualifications Level Descriptors, Guidelines for the Registration and Accreditation of Qualifications on the Zambia Qualifications Framework, National Occupation Standards and ZAQA Policy and Criteria for Recognizing Prior Learning and Student Transfer Guidelines.

B. ADMINISTRATIVE DATA

Name of Higher Education Institution	
Type of Higher Education Institution (e.g., College, University College, Technical University College, University)	
Physical Address of the Higher Education Institution	
Notification Address of the Higher Education Institution (Indicate Business Address)	
Postal Address	
Telephone Numbers	
E-mail Address	
Contact Person	
Designation of Contact Person	

C. Learning Programme Details

Name of Learning Programme (e.g., BSc Economics)	
Level of Qualification e.g., ZQF level 7	
Duration e.g., 4 years	
Mode of Delivery	

e.g., ODL /Conventional/ both ODL and Conventional	
Total Credits	
Curriculum Review Period (Between 3 and 6 years	

PART II: DETAILS OF LEARNING PROGRAMME

D. CRITERIA FOR ACCREDITATION

D1. Introduction: In order for a learning programme to be considered, a Higher Education Institution shall provide the following information which forms the criteria for accreditation:

1. Rationale (provide introduction to the learning programme and its rationale)
2. Aims of the Programme
3. Learning Outcomes (Based on ZQF Level Descriptors)
4. Teaching and Learning Plan
5. Curriculum (Course descriptions, course learning outcomes)
6. Assessment Policy
7. Staff
8. Facilities for Programme Delivery
9. Teaching and Learning Support
10. Internal Quality Assurance
11. Financial Resources
12. Regulations

D2. Introduction and Rationale

D2.1 Introduction: Provide and introduction and background information about the learning programme

D2.2 Rationale: Based on your background research and stakeholder engagement briefly explain why this programme is needed and how it will contribute to human capital development in the country. You may refer to relevant policy and national documents that support the need for human capital development in this field. The rationale should include the following:

a. human resource gap being addressed by the learning programme
b. relevance: explain the importance and applicability of the learning programme to the workforce and other stakeholder needs. (To be revisited)
c. acceptability: Provide information about the acceptability of the learning programme by various stakeholders. This should be based on stakeholder engagement and should include:

i) stakeholders consulted (e.g., academic, industrial, and professional stakeholders)

ii) the interests of the various stakeholders in the learning programme and

iii) how the learning programmes addresses these stakeholders' interest.

D2.3 Aims of the Programme

Give brief detail on what the learning programme is intended to achieve in relation to academic, industrial, professional and societal needs.

D2.4 Learning Outcomes (Based on ZQF Level Descriptors)

Learning Outcomes are measurable skills, abilities, knowledge or values that the student demonstrates as a result of completing the learning programme. They are student-oriented and describe what competences students would have gained upon completion of the programme.

The learning outcomes should be based on the Zambia Qualifications Framework level descriptors for the relevant qualification. Active verbs should be used to write the learning outcomes to enable the lecturers to measure the successful delivery of the curriculum. The learning outcomes must be categorized into:

a) knowledge and understanding - e.g., demonstrate critical understanding of a range of principles of in a particular field.

b) intellectual skills (cognitive and creative skills) – this could use verbs such as apply, create, evaluate, analyse etc.

c) subject specific skills (professional skills)- expressed in form of what a student can execute in a professional environment, (e.g., Conduct a financial audit)

d) reflexive skills- basically application of knowledge and skills in general. These are expressed in terms of autonomy, accountability, judgement and ability to adapt to changes.

e) Transferrable skills- this includes communication skills, numeracy skills etc.

D2.5 Teaching and Learning Plan

A teaching and learning plan describe how teaching and learning will be organised over the total duration of a learning programme. It includes teaching and learning activities (lectures, seminars, practicals, self-study, project work and assessments) and the time allocated to them. A teaching and learning plan should take into consideration the following;

a) The programme learning outcomes of the learning programme (teaching and learning activities should lead to achievement of learning outcomes).
b) the minimum notional hours and credits covered across the full duration of the learning programme. As a guide a semester course running over a period of between 15-18 weeks will carry a minimum of 150 notional hours (15 credits). A standard course that runs throughout the academic year carries a minimum of 300 notional hours (30 credits). Therefore, 10 notional hours translates into 1 credit.
c) The total notional hours for a full academic year must not be less than 1200 hours (120 credits). Therefore, a 4-year bachelor's programme shall take not less than 4800 notional hours (480 credits) and a 2-year master's programme shall take not less than 2400 notional hours (240 credits).

D2.5.1 Teaching and Learning Plan

Table 1. Example of Teaching and Learning Plan

(a) Year 1

COURSE CODE	**COURSE TITLE**	**Notional HOURS**													**CREDITS**
		Lectures		**Tutorials**		**Laboratory**		**Seminars**		**Field Work**		**Assessments and Self Study**		**Total Hours**	
		Hrs/ Wk	**No. of Wks**	**Hrs / Wk**	**No. of Wks**	**Hrs/ Wk**	**No. of Wks**	**Hrs/ Wk**	**No. of Wks**	**Hrs /Wk**	**No. of Wks**	**Hrs /Wk**	**No. of Wks**		
BIO 1401	Cells and Biomolecules	3	15	1	15	3	15	-	-			3	15	150	15
BIO 1412	Molecular Biology and Genetics	3	15	1	15	3	15					3	15	150	15
CHEE 1000	Introductory Chemistry	3	30	1	30	3	30					3	30	300	30
MAT 1100	Foundation Mathematics	3	30	1	30	3	30					3	30	300	30
PHY 1010	Introductory Physics	3	30	1	30	3	30					3	30	300	30
	TOTAL													**1200**	**120**

Note: Research Work and other projects are expected to have more hours allocated to self-study, laboratory work and/or field work. For postgraduate programmes HEIs are encouraged to allocate more time to seminars.

D2.6 Curriculum

The HEI is expected to provide a curriculum that is responsive to the labour market and enables the student to achieve the intended learning outcomes. The curriculum shall include courses/modules, course syllabi, teaching and learning methods, teaching and learning resources, and assessment. For each learning programme, the HEI shall provide a course outline taking into consideration all the above captioned aspects. An example of a course outline is provided in Appendix 1.

D 2.7 Assessment Policy

The HEI shall provide a policy statement on the assessment of the learning programme. The breakdown of assessment to show the distribution of marks for formative and summative assessment shall be provided.

D2.8 Staff

The Higher Education Institution (HEI) shall provide a policy statement on the teaching staff qualifications (e.g that an academic staff should be in possession of a higher qualification for them to teach or supervise a particular course)

D2.8.1 Staff qualification*: For academic and support staff qualifications use the table below*

***D2.8.2 Staff development* programme**: The HEI shall provide information on how the continuous professional development of academic staff will be supported in order to enhance quality service delivery of the programme.

D2.8.3 Staff Workload*:* The HEI shall provide information on the institutional work load policy and how learning programme fits into it.

D2.8.4 Programme Coordinator*:* ……

Table 2: Academic and Support Staff

(a) Academic Staff

Title	Surname	First name	Gender	Higher Education Qualifications	specialisations	Teaching experience in higher education (Yrs)	Nonacademic work experience (Yrs)	Rank	Fulltime (FT) Part-time (PT) Adjunct (Adj.)
Prof.	Chifwepa	Michael	M	PhD (Commerce), MSc (Commerce) and BSc (Commerce)	E-commerce	More than 30	More than 30	Senior Lecturer	FT
Dr	Namonje	Elizabeth	F	PhD (Anatomy), MSc (Anatomy) and BSc (Biology)	Human Anatomy	More than 15	More than 15	Lecturer	FT

Example List of Courses Taught by the School of Civil, Environmental and MiningEngineering and their Course Coordinators

YEAR 1		**Course Lecturer**
C&ENVENG 1010	Engineering Mechanics	Dr. Statics C. Willis
C&ENVENG 1008	Engineering Planning & Design 1	A D. Walker
C&ENVENG 1009	Civil & Environmental Eng 1	A/P M. Muya
C&ENVENG 1012	Engineering Modelling and Analysis	I A N. Arbon
MINING 1011	Introduction to Mining Engineering 1	A/P E. Chanda

YEAR 2		**Course Lecturer**
C&ENVENG 2025	Strength of Materials II	Prof. S. Simukanga
C&ENVENG 2067	Construction Management and Surveying	A/P M. Muya
C&ENVENG 2068	Environmental Engineering & Sustainability II	A/P H. Maier, T. Rowan
C&ENVENG 2069	Geotechnical Engineering II	Dr. M. Chileshe, M. Jaksa
C&ENVENG 2070	Engineering Modelling and Analysis II	Dr. A N. Melkoumian
C&ENVENG 2071	Water Engineering II	A N. Arbon
C&ENVENG 2072	Structural Engineering Design	Dr. M. Ali

THE ABOVE TO BE DONE FOR ALL COURSES OFFERED IN A PROGRAMME

Table 2: Academic and Support Staff

(b) Support and Technical Staff

Title	**Surname**	**Other names**	**Gender**	**Higher Education Qualifications**	**Teaching experience in higher education (Yrs)**	**Professional and work-place experience (Yrs)**	**Rank**	**Fulltime (FT) Part-time (PT)**
Mr	Mfune	Orleans	M	BSc (Biology)		10	Chief technician	FT
Mr	Mushumba	Martin	M	Diploma (Lab technology)		5	Lab technologist	FT

D2.8 Facilities for Programme Delivery (Facilities provided and available for teaching, learning and research)

D2.9 Teaching and Learning Support (Facilities, Equipment and networks available to support teaching and learning)

D2.10 Learning Programme Quality Assurance (Details of mechanisms at departmental and school level for internal quality assurance of the programme e.g curriculum review, internal and external moderation of examinations)

D2.11 Financial Resources (Provide information on financial resources available to support the implementation of the learning programme)

D3. Regulations

D3.1 Entry Requirements (including recognition of prior learning)

D3.2 Assessments (Including external examination)

D3.3 Progression (regulation on how students' progress from one year of study to the other)

D3.4 Degree Classification (provide information on how the qualification will be graded and classified)

DECLARATION

I..... , confirm that the information I have given in the Application Form is true.

Signature:……

Designation:……

Date:……

WITNESS

Name:……..

Signature:……

Designation:……

Date:……

APPENDIX 1

Course Descriptions

Course Descriptions (Example):the Information given in this section shall match the information given in the teaching and learning plans for all courses.

E1.1 BIO1401: Cells and Biomolecules (15 Credits)

E1.1.1 Rationale

The HEI shall provide justification why the course is required in the learning programme i.e why it is important for students to take this course>

1.1.2 Learning outcomes

The HEI shall provide information on what the learner is expected to know, do and be upon completion of this course. The learning outcomes shall be presented starting with active verbs (e.g analyse, apply, demonstrate, evaluate, create, develop, destroy and cost)

E1.1.3 Course content

The HEI shall provide an outline of all the main topics and subtopics for the courses

E 1.1.4 Teaching and Learning Methods

The HEI shall provide the teaching and learning methods in line with the teaching and learning plan.

E1.1.4 Assessment

The HEI shall provide a breakdown of pieces of assessment as outlined in the teaching and learning plan. The assessment shall include continuous assessment, examinations and mode of assessment for project and practical work. For each of assessment the HEI shall indicate the total marks allocated.

E1.1.5 Prescribed Readings

The HEI shall provide a maximum of three core texts preferably published in the last 5 years except for classical works. HEIs are encouraged to provide the latest texts where possible

E1.1.6 Recommended Readings

The HEI shall provide a list of recommended texts preferably published in the last 5 years except for classical works. HEIs are encouraged to provide the latest texts where possible

THE ABOVE TO BE DONE FOR ALL COURSES IN EACH YEAR OF STUDY

E2.0 Example of complete course outline

E1.5 GES 5271: Climatology (120 credits)

E1.5.1 Rationale

Applied climatology involves the application of climatic data and techniques to solve a wide range of environmental and social problems. This branch of climatology seeks to identify the relationships between climate and environmental or social systems and utilize these relationships to develop practical applications, models, or tools that facilitate decision making, adaptation, or mitigation. This course is essential to this learning programme as it will provide students with a comprehensive understanding of physical laws governing atmospheric heat transfer processes, the application of climatology to different sectors of the national economy, as well as concepts in paleoclimatology, greenhouse effect and El Nino.

E.1.5.2 Learning Outcomes

At the end of the course, the student is expected to:

(i). Analyse temperature data in order to inform decision making;

(ii). Evaluate the impact of climate change on various sectors of the economy;

(iii). Apply concepts in climatology to social, and environmental problems associated with transportation, agriculture, tourism and water resource management

E1.5.3 Course Content

1. **The Earth-Atmosphere System**
   - 1.1 The science of Climatology-introduction to the climate system;
   - 1.2 Physical laws governing atmospheric circulation;
   - 1.3 Paleo climatology.
2. **Energy in the atmosphere**
   - 2.1 Solar Radiation and the Earth's Energy Balance;
   - 2.2 Radiation laws;
   - 2.3 The Earth's Radiation Budget- Clear Sky;
   - 2.4 The Earth's Radiation Budget- Cloud Forcing;
   - 2.5 Seasons and Energy in the Atmosphere.

3. **Forces affecting wind circulation**
    - 3.1 Atmospheric pressure-gradient force;
    - 3.2 Coriolis force;
    - 3.3 Centrifugal and centripetal forces;
    - 3.4 Friction force;
    - 3.5 Water Vapour;
    - 3.6 Stable and Unstable Air;
    - 3.7 Moisture and Clouds.
4. **Greenhouse Effect**
    - 4.1 Understanding the Greenhouse Effect;
    - 4.2 Greenhouse Gases and the Carbon Cycle;
    - 4.3 Mitigation options for greenhouse gas induced global warming.
5. **Oceanic-Atmosphere Interactions**
    - 5.1 Ocean Circulation;
    - 5.2 Ocean-Atmosphere Coupling;
    - 5.3 El Niño–Southern Oscillation (ENSO);
    - 5.4 Ocean-Atmosphere Interactions;
    - 5.5 Agricultural Consequences of ENSO;
    - 5.6 ENSO Impacts.
6. **Applied Climatology**
    - 6.1 Agro-climatology;
    - 6.2 Application of climatology in aviation and transport;
    - 6.3 Application of climatology in tourism;
    - 6.4 Application of climatology in energy
    - 6.5 Climate extremes as a hazard to humans;
    - 6.6 Climate and water resources.

E1.5.4 Practical Topics

Weather instrumentation; Analysis of rainfall and temperature data; Radiation-Computation of radiation (Energy) balance; Clouds; General Circulation; Energy and Radiation balances Weather forecasting and analysis

E1.5.5 Teaching and Learning Methods

Lectures:	3Hrs/Week
Seminars:	2Hrs/Week

Practicals:	3 Hrs per week

E1.5.6 Assessment

Continuous Assessment	**60%**
Assignments	10%
Tests	20%
Practicals	15%
Seminar presentation	15%
Final Examination	**40**

E1.5.7 Prescribed Readings

Lee R. Kump, L.R., Kasting, J.F., and Crane, R. (2020). The Earth System: An Introduction to Earth Systems Science (2nd. ed.). New Jersey: Prentice-Hall: ISBN-13: 978-0131420595.

Ahrens, C. D. (2019). Meteorology Today- An introduction to weather, climate, and the environment (9th ed.). Belmont: Brooks/Cole, CA 94002,. ISBN-13: 978-0-495-55573-5.

E1.5.8 Recommended Readings

Barry, R.G., and Chorley, R. J., (2020). Atmosphere, Weather and Climate (6th ed.),New York: Routledge. ISBN-0-415-07761-3.

Ahrens, C. D (2017). Meteorology Today-An Introduction to Weather Climate and the Environment, Hammond: West Publishing Company. ISBN 13: 9780314624772.

Moran, J.M., Morgan, D.M., and Pauley, M.P. (2019). Meteorology-The Atmosphere and Science of Weather.London: Pearson College Div. ISBN 13: 978-0132667012.

Robin, M., (2018). Fundamentals of Weather and Climate (2nd ed.). Oxford: Oxford University Press. ISBN-13: 978-0199215423.

APPENDIX

Teaching Staff Curricula Vitae

CVs of staff involved in the Programme

NAME: Dr Frank Mutale

SCHOOL: School of Civil, Environmental and Mining Engineering

CURRENT POSITION: Senior Lecturer

COURSES TAUGHT

- Prestressed Concrete Structures (Postgraduate level)
- Advanced Reinforced Concrete (4th year and Postgraduate level)
- Design of Concrete Structures (4th year)
- Structural Mechanics (3rd year)
- Structural Design II (2nd year)

ACADEMIC QUALIFICATIONS

- University of Ottawa, Ottawa,
  ON, Canada Department of
  Civil Engineering
  Ph.D. in Civil Engineering, December 2007
  Thesis: "Seismic Performance of High-Strength Concrete Columns in FRP Stay-in-Place Formwork"Istanbul Technical University, Istanbul, Turkey
- University of Ottawa, Ottawa,
  ON, Canada Department of
  Civil Engineering
  MSc. in Civil Engineering,
  January 2001
- University of Ottawa, Ottawa,
  ON, Canada Department of
  Civil Engineering
  B.Sc. in Civil Engineering, June 1998

PROFESSIONAL MEMBERSHIP

- Member, American Concrete Institute (ACI)
- Associate Member, ACI Committee 374, Performance-Based Seismic Design of Concrete Buildings

- Associate Member, ACI Committee 440, Fiber Reinforced Polymer Reinforcement
- Associate Member, ACI-ASCE Joint Committee 441, Reinforced Concrete Columns
- Member, International Institute for FRP in Construction (IIFC)
- Member, Concrete Institute of Australia (CIA)
- Member, Canadian Association for Earthquake Engineering (CAEE)
- Former Student Chair, Ottawa Carleton Earthquake Engineering Research Centre (OCEERC)

ACADEMIC EMPLOYMENT HISTORY (including Honorary and Adjunct Positions)

- 2006-present Lecturer (Level B), School of Civil and Environmental Engineering, University of Adelaide, Adelaide, South
- Australia
- 2004-2006 Lecturer (Sessional), Department of Civil Engineering, University of Ottawa, Ottawa, Canada

PROFESSIONAL EMPLOYMENT, EXPERIENCE AND CONSULTANCY HISTORY

RESEARCH INTERESTS

- Behaviour, design, and retrofit of earthquake-resistant concrete structures
- Behaviour and design of FRP reinforced concrete structural members
- Confinement of normal- and high-strength concrete columns by FRP composites
- Use of concrete-filled FRP tubes as earthquake-resistant columns for new construction
- Repair and strengthening of concrete and masonry structures with advanced composite materials
- Behaviour and design of high-strength concrete members
- Use of fibre optic sensors for structural health monitoring
- Inelastic dynamic analysis of reinforced concrete structures for seismic investigation
- Blast resistant design of reinforced concrete structures

PUBLICATIONS (last 5 years)

Books	Book Chapters	Journal papers (refereed)	Conference papers (Refereed)
0	0	8	8