NKAYI ELITE MATHEMATICS DOCTORAL SCHOOL

MATHEMATICS DEPARTMENT

BLESSINGTON CHRISTIAN UNIVERSITY

KIVIDI-NKAYI, REPUBLIC OF CONGO

www.blessington-christian-university.com

- **Master Science (Msc) :**   **1 year**

- **Master Philosophy (Mphil) :**   **2 years**

- **Ph.D**   **3 years**

Mathematics Msc Honors

- Full time

- 1 year

MODULES YEAR 4

Optional Modules	Credits
Number Theory & Cryptography	20
Group Theory, Graphs & Symmetry	20
Linear Analysis & Topology	20
Matrix Analysis & Representation Theory	20
Topics in Analysis & Functional Analysis	30
Algebraic Topology & Galois Theory	30
Geophysics & Astrophysics Fluids	20
General Relativity	20
Quantum Fluids	20
Relativity & Variational Methods & Lagrangian Dynamics	20
Advanced Concepts of Applied Mathematics	20
Discrete Stochastic Modelling & Survival Analysis	20
Modern Bayesian Inference	30
Topics in Statistics	30
Measure and Integration	20

Complex Analysis	20
Lie groups & Lie algebras	20
Differential geometry	20
Distribution	20

TEACHING AND ASSESSMENT

Teaching methods:

1. Lectures

2. Tutorials and drop-in sessions

3. Online classes

4. Problem classes

5. Practical computer and computer-based assessments

6. Data collection and analysis

Assessment methods:

1. Written assignment

2. Practical examinations

3. Online examinations

Mathematics Mphil Honors (Master II)

- Full time
- 2 year

Optional Modules	Credits
Theory of group representation	20
Harmonic Analysis on topological groups and Lie groups	30
Hardy spaces	20
Toeplitz oprators	20
Completely bounded Homomorphisms	20
Differential geometry	20

Defense of Master's thesis

TEACHING AND ASSESSMENT

Teaching methods:

1. Lectures
2. Tutorials and drop-in sessions
3. Online classes

4. Problem classes

5. Practical computer and computer-based assessments

6. Data collection and analysis

Assessment methods:

1. Written assignment

2. Practical examinations

3. Online examinations

PhD in Mathematics

Research for PhD (Three years)
(For selected students only)

After the selected students have been enrolled in a course about initiation to research in Harmonic Analysis, Functional Analysis and Differential geometry.