

#### **BLESSINGTON CHRISTIAN UNIVERSITY**

# KIVIDI-NKAYI, CONGO

www.blessington-christian-university.com

## **Mathematics Bsc Honors**

- Full time
- 3 years
- Next start date:
- Fees (per year):
- Entry requirements: Baccalaureat C, D or E

## **MODULES YEAR I**

Compulsory Modules	Credits
Introduction to Calculus	20
Introductory Algebra	20
Multivariable Calculus & Differential Equation	20
Introduction to Probability & Statistics	20
Logic, Sets and Counting	10
Number Systems	10
Problem Solving with Pyton	10
Dynamics	10

#### **MODULES YEAR II**

Compulsory Modules	Credits
Complex Analysis & Algebra	20
Linear Algebra & Coding Theory	20
Vector Calculus & Differential Equation, Transforms Waves	20
Pyton and Fluid Dynamics	20
Statistics Inference & Stochastic Modelling	20
Probability & Bayesian Methods with R	20

# **MODULES YEAR III**

Optional Modules	Credits
Number Theory and Cryptography	20
Group Theory, Graph & Symmetry	20
Linear Analysis & Topology	20
Matrix Analysis & Representation Theory	20
Methods for Differential Equations & Partial Differential Equations	20
& Non-Linear Waves	
Quantum Mechanics & Classical Fields	20
Advanced Fluid Dynamics & Computational Modelling	20
Relativity, Variational Methods & Lagrangian Dynamics	20
Linear & Generalised Linear Models	20
Stochastic Financial Modelling & Bayesian	20
Stochastic Inference & Big data Analytics	20
Discrete Stochastic Modelling & Survival Analysis	20

## TEACHING AND ASSESSMENT

# **Teaching methods:**

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

# **Assessment methods:**

- 1. Written assignment
- 2. Practical examinations
- 3. Online examinations