

CURRICULUM VITAE

Personal data:

Name: Ndago Frank Omondi

Date of Birth: 11th August, 1987

Nationality: Kenyan ID no. 26340005

Marital Status: Married

Religion: Christian

Address: P.O. Box 20-50127, Nambacha (Kenya).

Email: frankndago@gmail.com or fndago@mmust.ac.ke

Expertise Research Interests

- Algebra(Theory of finite rings and Ring classification)
- Graph theory and representation of graphs through matrices in system networks
- Coding theory and generation of codes from special linear groups and the alternating groups.
- Proficient in **Mathematica** software for analysis, **R – Software**, **TikZ**Software for representation of graph networks and **LaTeX** (Type Setting)

Education:

- **January 2020 to December 2025**-Doctor of Philosophy in Pure Mathematics (Masinde Muliro University of Science and Technology-Kenya).

Specialization: Algebra.

Course involved: Topics in Operator Theory I, Topics in Commutative Algebras, and Topics in Non-commutative Algebras.

Dissertation: The Structures of Matrices and Indices of Zero Divisor Graphs of 3, 4-Radical Zero Completely Primary Finite Rings.

1. Supervisor- Prof. Owino Maurice Oduor
2. Supervisor-Dr. Ojiema Michael Onyango

- **September 2015 – December 2018**-Master of Science in Pure Mathematics (Masinde Muliro University of Science and Technology-Kenya)

Specialization: Algebra, Analysis.

Courses involved: General Topology I, Abstract Integration I, Abstract Integration II, Group Theory II, Functional Analysis I, Functional Analysis II, Rings and Fields,

Operator Theory I, Operator Theory II, Commutative Algebra and Non Commutative Ring Theory.

Thesis Title: On the Adjacency and Incidence Matrices of the Zero Divisor Graphs of a Class of the Square Radical Zero Finite Commutative Rings.

1. Supervisor- Prof. Owino Maurice Oduor
 2. Supervisor- Dr. Ojiema Michael Onyango
- **September 2008 to December 2021**- Bachelor of Education Science with Information Technology(Maseno University-Kenya)
Specialization:Mathematics and Chemistry(Second Class Honours, Upper division).
 - **February 2003- December 2006**-Kenya Certificate of Secondary Education (B minus), Our Ladys' Mercy Ringa Boys Secondary School (Homabay County-Kenya).
Subjects involved: Mathematics, English, Kiswahili, Chemistry, Biology, Geography, History and Government and Business Studies.
 - **January 1995- December 2002**-Kenya Certificate of Primary Education (B Plain), Kakelo Primary School(Homabay County-Kenya).
Subjects involved:Mathematics, English, Kiswahili, Science , Geography, History and Civics and Christian Religious Education.

RESEARCH PUBLICATIONS

Papers in Refereed Journals published

Actively involved in research in the field of pure mathematics and published the following research findings in Various Refereed Journals:

1. **Ndago, F. O.,** Oduor, M. O. and Ojiema, M. O.: Analysis of Adjacency, Laplacian and Distance Matrices of Zero divisor graphs of 4-Radical Zero Completely Primary Finite Rings, SCIENCE MUNDI, 4(2), pp. 61–88. doi: 10.51867/scimundi.4.maths.1.1.(2024)
2. **Ndago, F. O.,** Oduor, M. O. and Ojiema, M. O.: Matrices of the Zero Divisor Graphs of Classes of 3-Radical Zero Completely Primary Finite Rings, SCIENCE MUNDI, 4(1), pp. 149–180. doi: 10.51867/scimundi.4.maths.1.1.(2024)
3. **Ndago F. Omondi,** Ojiema M. Onyango, Owino M. Oduor:On the Adjacency and Incidence Matrices of the Zero Divisor Graphs of A Class of the Square Radical Zero Finite Commutative Rings, International Journal of Pure and Applied Mathematics, Vol.118, No.3,773-789(2018).

CONFERENCES AND WORKSHOPS ATTENDED

- **4thSeptember, 2025- Senior School Grade 10 mathematics Webinar** organized and facilitated by the Oxford University Press East Africa.
- **4th -7th October, 2021-School on graph theory**
Facilitated by Dr. Sonwabile Mafunda, hosted by the University of Johannesburg South Africa. Topics facilitated:
 - Algebraic Graph Theory
 - Topological Graph Theory
 - Distance Measures in Graphs
 - Spectral Graph Theory.

PROFFESIONAL/WORK EXPERIENCE

- **2019 to date** -Part-time Lecturer, Masinde Muliro University of Science and Technology.
Responsibilities:
 - i) Teach undergraduate students in the department of Mathematics.
Undergraduate Courses Taught:
MAT 101: Foundation Mathematics
MAT 121: Differential Calculus
MAT 104: Algebraic structures I
MAT 161: Pure mathematics I
MAT 162: Pure mathematics II
MAT 100: General mathematics
MAT 201: Linear Algebra I
MAT 202: Linear algebra II
MAT 209 Applied Mathematics for Technologists
MAT 301: Real Analysis
MAT 308: Group Theory
MAT 401: Measure Theory
 - ii) Participating in setting, moderating, marking and analyzing examinations for undergraduate courses.
 - iii) Supervising undergraduate students in Pure Mathematics projects
 - iv) To offer tutorial advice.
- **2018 to 2019**-Part-time Tutorial fellow, Kibabii University –Kenya(2018/2019).
Responsibilities:
 - i) To teach the undergraduate students in the department of mathematics
Undergraduate Courses Taught:
MAT 221: Integral Calculus,
MAT 100: Mathematics for Technologists

MAT 404: Differential Topology

MAT 434: Differential Geometry.

- v) Participating in setting, moderating, marking and analyzing examinations for undergraduate courses.
- vi) Supervising undergraduate students in Pure Mathematics projects
- vii) To offer tutorial advice.

- **1st September 2014 to date**-Mathematics/Chemistry teacher on T.S.C terms of service – Sidikho Secondary School (Kakamega).

Key responsibilities include:

- i) Teaching Mathematics and Chemistry from form 1 to form 4.
- ii) Setting, moderating, marking and analyzing examinations.
- iii) Offering guidance and counseling to students in the subject areas and life skills.
- iv) In charge of a particular week (s) within the term in the capacity of teacher on duty.

Other responsibilities

- Head of mathematics department with the following responsibilities.
 - ☐ Making termly and yearly academic calendars.
 - ☐ Supervising / monitoring the effective curriculum delivery.
 - ☐ Procurement of mathematics materials.
 - ☐ Safe custody of the records of work covered books.
 - ☐ Organizing inter-stream and inter-class competitions in the subject support activities
 - ☐ Organizing motivational talks in mathematics
 - ☐ A member of Senior Management team
- **1st September 2013-31st August 2014**- Mathematics/ Chemistry teacher-Booker Academy (Mumias),

Responsibilities:

- i) Teaching Mathematics and Chemistry from form 1 to form 4.
- ii) Setting, moderating, marking and analyzing examinations.
- iii) Offering guidance and counseling to students in the subject areas and life skills.
- iv) In charge of a particular week (s) within the term in the capacity of teacher on duty.

- **January to August 2013**-Mathematics/Chemistry teacher on BOM terms (St.Charles Lwanga (Mukumu).
 - i) Teaching Mathematics and Chemistry from form 1 to form 4.
 - ii) Setting, moderating, marking and analyzing examinations.

COMPUTER SKILLS:

- Microsoft Office
- Internet
- Latex
- TikZ
- Mathematica
- HTML

LANGUAGES:

- Kiswahili
- English
- Dholuo

COMMUNITY SERVICE

- Presiding officer in the 2017 and 2022 IEBC General elections in Kenya.
- Secretary to Kasaye Tree Nursery Development Association.
- Motivational speaker in Churches and Schools.

REFEREES:

1. Prof. Owino Maurice Oduor
DVC. (PR&I)/ Prof. of Pure Mathematics
Department of Mathematics and Computer Science- University of Kabianga,
P.O Box 2030-20200, Kericho-Kenya
Email: moduor@kabianga.ac.ke
2. Prof. Achilles Simiyu Nyongesa
Associate Professor & COD, Mathematics Department
Masinde Muliro University of Science & Technology.
P.O. Box 190 - 50100, KAKAMEGA, KENYA
Email: anyongesa@mmust.ac.ke
3. Dr. Ojiema M. Onyango
Senior Lecturer, Masinde Muliro University of Science and Technology,
P.O Box 190-50100, Kakamega.
Email: mojiema@mmust.ac.ke

CERTIFICATION

I Dr. Ndago Frank Omondi, do certify that the information provided in this resume is true.

Sign..... Date.....