



# CURRICULUM VITAE

## Dr. Sylvester Ali Frimpong

---

### Personal Data

---

**Name:** Dr. Sylvester Ali Frimpong

**Postal Address:** University of Education, Winneba, Department of Mathematics Education,  
Box 25, Winneba, Central Region, Ghana, West Africa

**Cell Phone:** +233 - 020 - 831 5368/055 – 848 7130

**E-Mail Address:** [syveek3@gmail.com](mailto:syveek3@gmail.com)/[mali@uew.edu.gh](mailto:mali@uew.edu.gh)

**Date of Birth:** 13<sup>th</sup> January, 1975

**Nationality:** Ghanaian

### Education

---

<b>Degree/Certificate</b>	<b>Institution</b>	<b>Period</b>
Doctor of Philosophy (Mathematics Education)	University of Education, Winneba	2015-2019
Master of Philosophy (Applied Mathematics)	Kwame Nkrumah University of Science and Technology	2011-2013
Bachelor of Education (Mathematics)	University of Education, Winneba	2003-2007
3-Year Cert. A. (Science and Mathematics)	Akropong Presbyterian College of Education	1995-1998
SSSCE (Gen. Science)	St. Peter's Senior High School	1991-1993
BECE	St. Joseph's Junior High School	1987-1990
Primary Education	Anglican Primary School	1981-1987

---

## Appointments

<i>Position/Title</i>	<i>Name of Institution</i>	<i>Date</i>	<i>Responsibilities</i>
Ag. Head of Department	Department of Mathematics Education, University of Education, Winneba	September 2023 – to date	To over sea the day-to-day activities, tuition and learning among staff and students.
Faculty representative for faculty journal	University of Education, Winneba, Faculty of Science Education	12 <sup>th</sup> July, 2022 – date	Update of Faculty Journal
Programme Coordinator	University of Education, Winneba (Institute of Distance and E-Learning)	26 <sup>th</sup> April, 2022 to 31 <sup>st</sup> July, 2022	Programme coordinator for BSc Mathematics Education
Graduate Coordinator	University of Education, Dept. of Mathematics Ed	2021 – August, 2023	Graduate Coordinator of Mathematics Educ. Dept.
Lecturer	University of Education, Winneba	2014 – date	Lecturer
Tutor	Wesley College of Education	2010 - 2014	Mathematics & ICT Tutor
Head of ICT Section	Wesley College of Education	2011-2014	Head of Section (In charge of academic activities in the section)
Head of IT Services	Wesley College of Education	2011-2014	In charge of IT services

## Professional Responsibilities: Lecturer/Ag. Head of Department

### Promotions/Ranks

<b>Rank</b>	<b>Period</b>
Senior Lecturer	2021 to date
Lecturer	2016 to 2021
Assistant Lecturer	2014 to 2016

## Public Services and Committees

- Workshop on the use technology in teaching mathematics, St. Paul's Methodist Preparatory and Junior High School, November, 2023
- **Disciplinary Committee on Exams Malpractices**, University of Education, Winneba, College for Distance and E-Learning (CODEL) 25<sup>th</sup> January to 17<sup>th</sup> February, 2023
- **Entity Tender Committee Member (Government Nominee.)**, Enchi College of Education. September 2021 to Date
- **Chief Examiner**, Jackson College of Education March 2021 – date

## Publications

---

### Books

- **Ali, M.** and Ampiah, E. M. (2020) Introduction to Computer Programming for Mathematics Teachers, Institute of Distance and E-Learning, University of Education, Winneba (UEW)
- **Ali, M.** and Asiedu-Addo, S. K. (2020). Vector Analysis for Tertiary Institutions. Big Mikes Publications, Accra
- Asiedu-Addo, S. K. and **Ali, M.** (2020). Partial Differential Equations, Institute for Distance Education and E-Learning, University of Education, Winneba, (UEW)
- Akaayure, P. and **Ali, M.** (2020). Abstract Algebra, Institute for Distance Education and E-Learning (IDeL), University of Education, Winneba (UEW).
- **Ali, M.** and Akayuure, P. (2020). Vector Analysis, Institute for Distance Education and E-Learning, University of Education, Winneba (UEW)
- **Ali, M.** and Amoah, E. K. (2019). Algebra. Mike's Publications, Accra
- Asiedu-Addo, S. K., **Ali, M.** (2019) Ordinary Differential Equations. Institute for Distance and E-Learning (IDEL), University of Education, Winneba (UEW)
- Asiedu-Addo, S. K. and **Ali, M.** (2019) An Introduction to Partial Differential Equations for Tertiary Institutions, Peddado Ventures, Koforidua
- Asiedu-Addo, S. K., **Ali, M.** and Rufai, S. (2018) Calculus II. Institute for Distance and E-Learning (IDEL) – University of Education, Winneba (UEW)
- Akayuure, P. **Ali, M.** Agenyega, K. B. (2017) Algebra II. Institute for Distance and E-Learning (IDEL) – University of Education, Winneba (UEW)
- Coffie, P. O., Akayuure, P. Agenyega, K. B. **Ali, M.** (2016). *Algebra I*. Institute for Distance Education and Learning (IDEL) – University of Education, Winneba (UEW)

## Articles

- Owusu-Ansah, N. A., Armah, G., **Frimpong, S. A.**, Apawu, J. (2023) Using Differentiated Instruction to foster algebraic thinking in classrooms. *International Journal of Studies in Education and Science (IJSES)*. 4(2), 151-162. <https://doi.org/10.46328/ijres.64>
- **Ali, M.** (2021). Factors affecting teaching and learning of Mathematics in the undergraduate mathematics students. A case study at the University of Education, Winneba. *International Journal of Scientific and Research Publications*. Vol. 11, (10). <http://dx.doi.org/10.29322/IJSRP.11.10.2021.p11807>
- **Ali, M.** (2017). Developing Mathematics Problem Solving Skills of Pre-Service Teachers in Colleges of Education using Activity-Based Methods and Drilling. A case study of St. Joseph's College of Education. *Journal of Science and Research (JOSER)*, Vol. 3, (2)
- Nwi-Mozi, I., Asiedu-Addo, S. K., Oppong, R. A., **Ali, M.** (2017). Primary One Enrolment in Public Basic Schools in Ghana using Time Series Forecasting. *Journal of Innovation in Education in Africa (JIEA)*, Vol. 1, (2)
- Asiedu-Addo, S. K., Nwi-Mozu, I., **Ali, M.** (2015). Modelling the Survival of Retrospective Clinical Data from Prostate Cancer Patients in Komfo Anokye Teaching Hospital, Ghana. *International Journal of Applied Science and Technology*, Vol. 5, (6)

## Curriculum Development

Course or Instructional Material	Year
Teaching and assessing mathematics for upper primary (Advanced). Jackson Educational Complex	2022
Algebra I, Course module for Institute of Distance Education and E-Learning, UEW. Co- developers: Dr. P. O. Coffie, Dr. Peter Akayuure, K. B. Agenyega	2016
Algebra II Course Module for Institute for Distance Education and E-Learning (IDEL), UEW. Co- developers: Dr. Peter Akayuure, K. B. Agenyega	2017
Calculus II, Course module for Institute for Distance Education and E-Learning (IDEL), University of Education, Winneba, UEW. Co- developers: Prof. S. K. Asiedu-Addo, PhD, S. Rufai.	2018
Ordinary Differential Equations. Course module for Institute for Distance Education and E-Learning (IDEL), University of Education, Winneba, UEW. Co- developer: Prof. S. K. Asiedu-Addo, PhD	2019
Partial Differential Equations, Course module for Institute for Distance Education and E-Learning, University of Education, Winneba, UEW. Co-developer: Prof. S. K. Asiedu-Addo, PhD	2020
Vector Analysis, Course module for Institute for Distance Education and E-Learning, UEW. Co-developer: Dr. Peter Akayuure	2020

## **Information Technology**

---

- Computer Hardware (Networking, repairs and assembling of computers)
- System Administration (Linux and Windows)
- Software Engineering
  - Programming (Visual Basic, C++, Java, Visual C++, PHP, HTML)
  - Database Management (SQL, MySQL, Microsoft Access)
  - Web design (Dreamweaver, Content management with Drupal, Wordpress and Joomla)
  - Networking Administration (Microsoft Windows Server, Red Hat Linux Server, Ubuntu Server)
  - Microsoft Office (Word, PowerPoint, excel, FrontPage, Access)
  - Multimedia (Publisher, Corel Draw, Photoshop, Adobe Fireworks, Adobe Flash, Camtasia, Windows Movie Maker, etc)
- Statistical Tools
  - SPSS
  - Minitab
  - Spreadsheet
  - R
- Mathematics Applications
  - GeoGebra
  - Geometric Sketchpad
  - MATLAB
  - Derive

## **Professional Experience**

---

<b>Experience</b>	<b>Institution</b>	<b>Year</b>
Lecturer	University of Education, Winneba	2014 – to date
Tutor	Wesley College of Education, Kumasi	2010 – 2014
Teacher (Mathematics and ICT)	Kumasi Anglican Senior High School	2008 – 2010
Teacher (ICT and Mathematics)	Yaa Asantewaa Girls' Senior High School	2007 – 2008

---

---

Mathematics and Science Teacher	Junior High School (Aboabo, Dormaa-Ahenkro, Atibie-Kwahu and Nkawkaw)	1998 - 2003
---------------------------------	---	-------------

---

### **Other Professional Experience/Expertise**

---

- 2005 – Date** Data Analysis with SPSS, Minitab, R and MS Excel
- 2003 – Date** Visual basic programming (SQL with VB, MYSQL with VB and software development with VB)
- 2003 – Date** Computer Hardware (Repairing and Assembling of Computers Networking)
- 2002 – Date** Computer hardware engineering (Repairs and Assembling)
- 2002 – Date** Database base programming with MYSQL
- 2001 – Date** Database programming with SQL and Ms Access
- 2001 – Date** Website design with Macromedia tools (Dreamweaver, Fireworks, Flash, Freehand, etc)
- 1991 – Date** Assembling and repairing of Electrical and Electronic gadgets (amplifiers and other audio gadgets)

### **Professional Development**

---

#### ***Training Sessions:***

**In-Service Training:** In-service training for Mathematics Teachers of Adumang SHS and Assin-Nsuta SHS on the integration of ICT in the teaching of Mathematics in SHS. 4<sup>th</sup> April, 2018

**In-Service Training:** In-service training for Mathematics Teachers of Adumang SHS and Assin-Nsuta SHS on the integration of ICT in the teaching of Mathematics in SHS. 21<sup>st</sup> March, 2018

**In-Service Training:** In-service training for Mathematics and Science Teachers of Senya SHS on the integration of ICT in the teaching of Mathematics in SHS. 31<sup>st</sup> January, 2018

**In-Service Training:** In-service training for Mathematics and Science Teachers of Senya SHS on the integration of ICT in the teaching of Mathematics in SHS. 19<sup>th</sup> December, 2017

#### ***Seminars and Workshops:***

**Grant Sourcing Workshop.** Directorate of Research, Innovation and Development (DRID), UEW, 28<sup>th</sup> February, 2023

**Faculty Retreat.** Faculty of Science Education, University of Education, Winneba. Elmina Beach Resort, Cape Coast. 1<sup>st</sup>-3<sup>rd</sup> September, 2021

**Sensitization Workshop (New Four-Year B.Ed. Curriculum):** Institute for Teacher Education and Continuing Professional Development (ITECPD), University of Education, Winneba. 19<sup>th</sup> and 20<sup>th</sup> August, 2019, JAM Conference Centre.

**Pupils' Math Camp for Basic Schools in Winneba Municipality:** Dept. of Mathematics Education, UEW, Co-ordinator, Resource Person and Organizing Secretary

**Writers' Workshop on New Curriculum for Ghana Education Service** Institute for Distance Education and E-Learning, University of Education, Winneba; 31<sup>st</sup> March to 6<sup>th</sup> April, 2019. Wadoma Hotel, Abuakwa-Kumasi

**Pupils' Math Camp** Dept. of Mathematics Education, UEW, Co-ordinator, organized for Primary 4 to 6 of pupils of Winneba basic schools. 26-31<sup>st</sup> August, 2018

**Writer's Workshop** Institute for Distance and E-Learning (IDEL), University of Education, Winneba – 1<sup>st</sup> February, 2016 to 6<sup>th</sup> February, 2016, Capital View Hotel, Koforidua

Linux Operating System Open-Source Day, University of Education, Winneba. May, 2006

### *Conferences/Webinars:*

**Mathematics Education for Students and Teachers (MEST) WEBINAR.** Theme: **Mastering GeoGebra:** Innovative Strategies for Teachers. 5<sup>th</sup> and 7<sup>th</sup> December, 2023

**Faculty of Build and Natural Environment (FBNE) Webinar.** Theme: Pedagogy in Higher Education. **Role:** Presenter on the topic “**Preparing Teaching Materials**”. Date: 1<sup>st</sup> December, 2023

**European Conference on Reflective-Based Learning,** University College of Northern Denmark. 20<sup>th</sup> to 24<sup>th</sup> November, 2023

**2<sup>nd</sup> Ghana-USA International Webinar.** Theme: Teacher noticing of children's mathematics thinking in Written work. 17<sup>th</sup> May, 2023

**Inter-University Conference for Doctoral Studies Seminar,** University of Education, Winneba (JAM Conference). Theme: Promoting staff development through collaborative research and quality teaching in education. 17<sup>th</sup> to 19<sup>th</sup> January, 2023. (**Role:** Coordinator and Presenter)

**2<sup>nd</sup> Ghana-USA International Webinar,** Theme: The burgeoning area: Teacher noticing for teacher professional development. 12<sup>th</sup> January, 2023

**6<sup>th</sup> International Multi-Disciplinary Conference for Post-Graduate Students,** University of Education, Winneba (JAM Conference). **Theme:** Change and Digital Transformation in the new normal: The role of the post-graduate student. 7<sup>th</sup> September to 9<sup>th</sup> September, 2022. (**Role:** Facilitator and Presenter).

**DRID Conference,** Directorate of Research, Innovation and Development (DRID), University of Education, Winneba (JAM Conference). Theme: Building and Excellent University through Funded Research and Innovation. 19<sup>th</sup> August, 2021

**5<sup>th</sup> International Multi-Disciplinary conference for Post-Graduate Students**, University of Education, Winneba. **Theme:** Quality of Education in the midst of COVID-19 pandemic: The role of the Post-Graduate Student. 15<sup>th</sup>-16<sup>th</sup> July, 2021. (**Role:** Facilitator)

**Professional Development Conference** (Maiden Edition): University of Education, Winneba. 5<sup>th</sup> November, 2019. JAM Conference Centre.

**65<sup>th</sup> New Year School**, Institution of Continuing and Distance Education, University of Ghana. Theme: Information and Communication Technology driven Education for sustainable human development: Challenges and prospects. 6<sup>th</sup> to 10<sup>th</sup> January, 2014

### Thesis/Dissertation Supervision

Topic/Programme	Writer/Year
<ul style="list-style-type: none"> <li>Developing the skills of computational thinking (CT) among pre-service teachers on spatial reasoning in collaborative problem-solving (PhD)</li> </ul>	Ofori Ernest (2022)
<ul style="list-style-type: none"> <li>Knowledge and attitudes of students towards SHS statistics (MPhil)</li> </ul>	Charles Darko Bram (2022)
<ul style="list-style-type: none"> <li>Assessing the impact of teacher-pupil amorous relation on pupils' academic performance of three junior high schools in Accra (PGDE)</li> </ul>	Edith McBruce (2019)
<ul style="list-style-type: none"> <li>The impact of in-service training on performance of female teachers in basic schools in the Okaikoi District of the Greater Accra region of Ghana (PGDE)</li> </ul>	Margaret Antwi (2020)
<ul style="list-style-type: none"> <li>The role of differentiation in maintaining high academic standard – A case study of Ghana International School (PGDE)</li> </ul>	Richard Anthony Bafara (2020)
<ul style="list-style-type: none"> <li>Gender and program of study differences in SHS students' perception and performance in core mathematics in Cape Coast Metropolis (MPhil)</li> </ul>	Yaw Efa (2022)
<ul style="list-style-type: none"> <li>The effect of motivation on teachers work performance in selected SHS in the Efutu Municipality (MPhil)</li> </ul>	Eduful Nana Patrick (2022)
<ul style="list-style-type: none"> <li>Factors that affect low performance of students in Mathematics among students of Agona Swedru SHTS (Med)</li> </ul>	Eliam Juliet Anima (2023)
<ul style="list-style-type: none"> <li>Computational Thinking Among Pre-Service Teachers and its Effect on their Problem-Solving Approach in Mathematics (PhD)</li> </ul>	Ernest Ofori Kwaku – in progress
<ul style="list-style-type: none"> <li>Mathematics teachers' knowledge, and use, of formative assessment in senior high schools in the eastern region of Ghana</li> </ul>	Godfried Ntow – in progress

### External/Internal Assessment of Thesis/Dissertation

Topic/Programme	Type of Assessment/ Institution	Writer (Year)
-----------------	------------------------------------	---------------



Factors Influencing Gender Differences in Mathematics Performance in the Senior High Schools in the Sagnarigu Municipality of the Northern Region of Ghana	Internal/UEW	Ambayor Claudia Togoor (2023)
Analysis of Senior High School students' statistical literacy, attitude towards statistics and their relationship	Internal/UEW	Charles Darko Bram (2023)
The effect of Constructivist-Based teaching method on students' misconception in Indices at new Abirem/Fosu Senior High School	Internal/UEW	Iaac Adomako (2023)
Pre-Service Teachers' attitude towards mathematics learning: The case of Mt. Mary College of Education, Somanya, Ghana	Internal/UEW	Daniel Owusu (2023)
Students' perception and their interest in Mathematics: The case of senior high schools in Yendi Municipality of Northern Region	Internal/UEW	Abdul-Jalil Abubakari
Using Jigsaw strategy to address senior high school students' difficulties in solving word problems involving linear equations	Internal/UEW	Philip Saah (2023)
Improving students' performance in circle theorem: A case study at Ejuraman Anglican SHS in Ashanti Region	Internal/UEW	Prince Kofi Gyimah (2021)
Investigating the effects of students' attitude on their achievement in mathematics: a case study of Kanton SHS (Med)	Internal/UEW	Gbene Sindon (2021)
Students' error in solving mathematical word problems (Med)	Internal/UEW	Florence Esinam Adutwumwaa Addo (2021)
Effect of the Van Haile's instructional model on students' achievement in Geometry (Med)	Internal/UEW	Edward Yalley (2021)
The content validity of teacher-made core mathematics test in senior high schools (MPhil, Mathematics Education)	Internal/UEW	Homuame Mariam Esinam (2021)
The effect of integration of GeoGebra in the teaching of circle theorem on senior high school students' achievements and motivation (Med, Mathematics Education)	Internal/UEW	Asiedu Seth (2021)
Using Guided discovery method for effective teaching of the Pythagoras' theorem in form two in Ghana Senior High School (GHANASCO), Tamale (Med)	Internal/UEW	NJilemani S. Sani (2021)
Effects of time management on the job satisfaction and motivation of mathematics teachers (PGDE)	Internal/UEW	Febiri Augustine (2021)

### Assessment of Promotions

Institution/Year	Ranked Assessed
Wesley College of Education, Kumasi (2023)	Senior Tutor
Mampong Technical College (2023)	Senior Tutor

## Community Service

---

- **Pupils' Math Camp for Basic Schools in Winneba Municipality:** Dept. of Mathematics Education, UEW, Co-ordinator, organized for Primary 4 to 6 of pupils of Winneba basic schools. 26-31<sup>st</sup> August, 2018
- **In-service Training:** In-service training for Mathematics Teachers of Adumang SHS and Assin-Nsuta SHS on the integration of ICT in the teaching of Mathematics in SHS. 4<sup>th</sup> April, 2018
- **In-service Training:** In-service training for Mathematics Teachers of Adumang SHS and Assin-Nsuta SHS on the integration of ICT in the teaching of Mathematics in SHS. 21<sup>st</sup> March, 2018
- **In-Service Training:** In-service training for Mathematics and Science Teachers of Senya SHS on the integration of ICT in the teaching of Mathematics in SHS. 31<sup>st</sup> January, 2018
- **In-Service Training:** In-service training for Mathematics and Science Teachers of Senya SHS on the integration of ICT in the teaching of Mathematics in SHS. 19<sup>th</sup> December, 2017
- Ghana Statistical Service, Ghana - Population and Housing Census 2010, Supervisor, Kumasi Metropolis, Dichemso Sub-Metro, Supervisor (26<sup>th</sup> September, 2010 to 6<sup>th</sup> October, 2010)
- External Panel Member on interview for the appointment of System Administrator, Kumawuman Rural Bank, Kumawu, Ashanti Region, (2011)
- Ghana Statistical Service, Ghana - Population and Housing Census 2000, Supervisor, Dormaa District (19<sup>th</sup> March to 4<sup>th</sup> April, 2000).

### Referees:

Prof. Asiedu-Addo Samuel, PhD  
University of Education, Winneba  
Department of Mathematics Education  
Tel: 024-3518385  
E-Mail: [skasieduaddo@uew.edu.gh](mailto:skasieduaddo@uew.edu.gh)

Alhaji Prof. Issifu Yidanna  
University of Education, Winneba  
Department of ICT Education

Tel: 020-6225471

Signed

Frimpong Ali Sylvester, PhD