



CURRICULUM VITAE

Stephen Twumasi Annan, (Ph.D)

Department of Integrated Science Education,

Faculty of science

University of Education

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Ghanaian

Areas of Expertise or Professional Skills: Environmental Science/ Agricultural Science

Professional Qualification(s):

Awarding Institution	Qualification	Period
The University of Ghana, Legon	PhD Environmental Science	2021
University of Ghana, Legon	MPhil Environmental Science	2011
University of Cape Coast	BSc Agricultural Science	2007
Wesley College, Kumasi	Teacher Certificate A	2000

Professional Responsibilities:

Teaching of undergraduate students	from April 2021 to date
Supervision of Pre-Internship students	April 2021 to date
Supervision of student project work	April 2021 to date
Teaching of College of Education students from	September 2007 to 2020
Teaching of Sandwich students University of Cape Coast	September 2011 to 2019
The teaching of Distance students University of Education, Winneba	September 2007 to Date

Education

Qualification/Certificate obtained	Name of Institution Attended	Date
Ph.D Environmental Science	University of Ghana, Legon	31 st December, 2021
MPhil Environmental Science	University of Ghana, Legon	31 st July 2011
BSc Agricultural Science	University of Cape Coast	25 th May 2007

Career History (beginning with the newest to the oldest):

<i>Position/Title</i>	<i>Name of Institution</i>	<i>Date</i>
<i>Lecturer</i>	<i>University of Education, Winneba</i>	<i>7th April 2021</i>
<i>Lecturer</i>	<i>University of Education Distance Programme</i>	<i>Feb 2007 to date</i>
<i>Senior Tutor</i>	<i>SDA College of Education-Koforidua</i>	<i>September 2007 to 2019</i>
<i>Project Work Coordinator</i>	<i>SDA College of Education-Koforidua</i>	<i>2012 to 2019</i>

Responsibilities: *Lecturing undergraduate courses in Integrated Science Education*
Supervise undergraduate students' project Work (Long easy)
Supervise and mentor students during on-campus teaching practice
Invigilation of Semester Examinations
Mark students' scripts and assigning grades to students

Course Representative *University of Ghana (IESS PhD Students) October 2017-2021*

Responsibilities: *Arrange for lectures and submission of students' assignments to Lecturers*
Arrangement of departmental seminars

Tutor *SDA College of Education* *September 2007 to 2019*

Responsibilities: *Head of Department (Agricultural Science)*
Taught Integrated Science Courses
Project work coordinator
Team Leader for Marking
Environmental Committee Chairman
Dining Hall Master

lecturer *College of Distance and e-Learning (CODeL) Feb 2007 to date*

Responsibilities: *Teach undergraduate science courses*
Teach Post Graduate Diploma in Education
Teach one-year Diploma in Education
Supervise Postgraduate and undergraduate students' long essay
Examination Monitoring Office and Team Leader on science courses

Board Member: *Institute for Environment and Sanitation Studies Management Committee*

University of Ghana-Legon (PhD Representative, 2017 to date).

Responsibilities: Attending Board meetings and reporting the outcome to coursemates

Publications, Research/Projects Conducted or Undertaken, Creative Works/Productions

Produced:

a. Books

1. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Scientific Approaches to Solving Agricultural Problems*. Winneba: CoDEL-UEW.
2. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Preparing to Teach Science*. Winneba: CoDEL-UEW.
3. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Biology Around Us*. Winneba: CoDEL-UEW.
4. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Agricultural Resources and Technology*. Winneba: CoDEL-UEW.
5. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Environmental Effect of Agriculture and Entrepreneurship*. Winneba: CoDEL-UEW.
6. **Twumasi, S.A.**, Koomson, C.K., & Owusu-Fordjour, C. (2022). *Historical Development Tools and Materials in Agriculture*. Winneba: CoDEL-UEW.
7. **Twumasi, S.A.**, & Koomson, C.K., Owusu-Fordjour, C. (2022). *Agricultural Policies and Association*. Winneba: CoDEL-UEW.

b. Peer-Reviewed Journal Articles

1. **Annan, S. T.**, Boasu, B. Y., Anyamesem-Poku, A., & Addae, R. (2024). Small-Scale Mining and Academic Performance of Ghanaian Students at the Basic Level. *Creative Education*, 15, 578-590. <https://doi.org/10.4236/ce.2024.154035>
2. **Annan, S. T.** (2024). The Ban on Illegal Mining in Ghana: Environmental and Socio-Economic Effect on Local Communities. *Journal of Geoscience and Environment Protection*, 12, 153-162. <https://doi.org/10.4236/gep.2024.12300>
3. Nkansah, F.K., Ampofo, N.A., Safo-Adu, G., & **Annan, S.T.** (2022). Heavy Metal Contamination in Vegetable Parts and Soil of Cultivated Capsicum Annum and Abelmoschus Esculentus, *Poll Res.* 41 (4): 1139-1150. <http://doi.org/10.53550/PR.2022.v41i04.001>
4. Owusu-Fordjour, C., Koomson, C. K., Essuman, S. A., **Annan, S.T.**, & Awortwe, L. (2022). An assessment of personnel and infrastructural readiness for the implementation

- of the new basic school science curriculum in the northern region of Ghana. *International Journal of Academic Research and Reflection*, 10 (2), 38-49.
5. **Annan, S. T.**, Frimpong, B., Owusu-Fordjour, C., & Boasu, B. Y. (2022). Assessing Localized Contamination Hazard and Groundwater Quality Challenges in Water-Stressed Peri-Urban Accra, Ghana. *Journal of Geoscience and Environment Protection*, 10, 13-28. <https://doi.org/10.4236/gep.2022.101002>
 6. **Annan, S. T.**, Owusu-Fordjour, C., Koomson, C. K., Agyemang, C., Addae, R., & Anim, D. O. (2021). Curriculum knowledge of science teachers and its effects on the academic performance of pupils. *International Journal of Academic Research and Reflection*, Vol. 9, No. 3, 2021, Progressive Academic Publishing, UK, www.idpublications.org
 7. **Annan, S. T.**, Sanful, P.O., Frimpong, B., Lartey-Young, G., R. K. Yandam, R.K., & Ansah, E. (2019). Social impacts of small-scale mining activities in some communities in the East Akim Municipality of Ghana, *Journal of Biodiversity and Environmental Sciences (JBES)* ISSN: 2220-6663 (Print) 2222-3045 (Online) Vol. 15, No. 1, p. 57-65, 2019.
 8. Adjibolosoo, S.V.K., **Annan, S. T.**, Owusu, E., & Twumasi, A.K. (2019). Antecedent Factors That Motivated People to Be Successful in Science: The Case of Wa District of the Upper West Region, Ghana *International Journal of Innovative Research & Development* Doi No.: 10.24940/Ijird/2019/V8/I7/Jul19024, ISSN 2278 – 0211 (Online)
 9. **Annan, S.T.**, Adarkwah, F., Memuna, M., & Awuni, S. (2019). “Assessment of Hazard Flash Points Predisposing Resident Communities to Disaster Risk in Adentan Municipality in Ghana.” *Applied Ecology and Environmental Sciences*, vol. 7, no. 2 (2019): 35-44. doi: 10.12691/aees-7-2-1.
 10. **Annan, S. T.**, Adarkwah, F., Abaka-Yawson, A., Sarpong, P.A., & Prince, K. S. (2019). “Assessment of the Inquiry Teaching Method on Academic Achievements of Students in Biology Education at Mawuko Girls School, Ho, Ghana.” *American Journal of Educational Research*, vol. 7, no. 3 (2019): 219-223. doi: 10.12691/education-7-3-5.
 11. Adarkwah, F., **Annan, S.T.**, Doe-Donne, P.L., & Anyamesem-Poku, A. (2018). “Maximizing Ecosystem Services in *Jatropha curcas*; The Appropriate Planting Method.” *World Journal of Agricultural Research*, vol. 7, no. 2 (2019): 36-48. doi: 10.12691/wjar-7-2-1.

12. Adjibolosoo, S. V.K., **Annan, S.T.**, Adarkwah, F., Frimpong, B., Ampofo, J.A., & Santiago, K. P. (2018). “Assessment of Bacteriological Quality of Sources of Drinking Water in some Selected Communities in the Akuapem South District of the Eastern Region, Ghana.” *Applied Ecology and Environmental Sciences*, vol. 6, no. 4 (2018): 153-159. doi: 10.12691/aees-6-4-6.
13. **Annan, S.T.**, Sanful, P.O., Lartey-Young, G., & Yandam, R.K. (2018). Spatial and Temporal Patterns of Variation in Environmental Quality of Water and Sediments of Streams in Mined and Unmined Areas with Emphasis on Mercury (Hg) and Arsenic (As). *Journal of Geoscience and Environment Protection*, 6, 125-140. <https://doi.org/10.4236/gep.2018.69010>
14. Adarkwah, F., **Annan, S.T.**, Anyamesem-Poku, A., & Santiago, P.K. (2018). “Real Estate Development and Land Grabbing in Ghana: A Review of Impact and Policy Responses.” *Journal of Food Security*, vol. 6, no. 3 (2018): 119-126. doi: 10.12691/jfs-6-3-4.
15. Deo-Donne, P.L., **Annan, S.T.**, Adarkwah, F., Pady, F., Frimpong, B., & Anyamesem-Poku, A. (2018). “Reaction of Cowpea Genotypes to Bacterial Blight (*Xanthomonascampestrispv. Vignicola*) Disease in Ghana.” *World Journal of Agricultural Research*, vol. 6, no. 3 (2018): 105-112. doi: 10.12691/wjar-6-3-5.
16. Attua, E.M., **Annan, S.T.**, & Nyame, F. (2014). Water quality analysis of rivers used as drinking sources in artisanal gold mining communities of the Akyem-Abuakwa area: A multivariate statistical approach. *Ghana Journal of Geography* Vol. 6, 2014, <http://www.ajol.info/index.php/gig/article/view/111132>

Seminars and Workshops:

1. A 2-day Education Webinar in Finland from Early Years to University. January 28 – 29, 2023.
2. Faculty Retreat, Faculty of Science Education Strategic Plan, (Elmina Beach Resort, Elmina) August, 26-29th, 2021
3. Two days workshop Theme: Improving Teaching and Learning Quality in Basic and Early Childhood Education, (Sunrise Merigold Academy-Tema) May, 8-9th, 2021
4. Two days workshop Theme: Improving Teaching and Learning Quality in Basic and Early Childhood Education, (Sunrise Merigold Academy-Tema) May, 8-9, 2021.

5. Grant and Proposal Writing Seminar. DRID – UEW. June 2021
6. Internship Supervisors Workshop-Student Internship Programme 2021/22 (Institute for Teacher Education and Continuing Professional Development –ITECPD, January 2022.
7. Capacity Building Workshop on New Educational Curriculum for selected CODEL tutors. Gloriako Hotel, Winneba. February 2022
8. Workshop on Second Semester Courses and UEW LMS for Selected Basic Education Tutors of IDeL. Wadoma Royale Hotel-Kumasi- Ghana, April 2021.
9. Workshop on UEW LMS for Selected IDeL tutors. Wadoma Royale Hotel – Kumasi – Ghana, October 2020.
10. 2012-date: Mentorship trainer workshop for teaching and supervising PDGE students at the University of Education, Winneba- Ghana.

Conference (s)

1. The West Africa Clean Energy and Environment Trade Fair and Conference (WACEE’23) 18th -19th October 2023 at Accra International Conference Centre
2. Ghana Science Association 33rd Biennial conference: Combating climate change: The Role of Science, Technology and Innovation, 5th – 7th September 2023
3. 22nd September 2022: GNEOG Webinar Series 2022: Strengthening national oil spill preparedness and response in environmentally sensitive areas. United Nations Environment Programme, International Environment House, 11-13 Chemin des Anemones, CH-1219 Chatelaine, Geneva, P: +41 22 917 83 01; +233 26 203 8518 www.gotomeeting.com, <https://youtu.be/W30Ejl6xDzl>
4. October 16-17, 2019: Conference on Climate Resilience and Waste Management for Sustainable Development (CReWAS, 2019). Institute for Environment and Sanitation (IESS), University of Ghana- Legon.
5. October 22-24,2018: International Conference on Open, Distance and e-Learning (Meeting Quality Education through Open, Distance and e-Learning) CODEL, University of Ghana- Legon

Curriculum Development:

INS 241: Principles of farm animals and crop production

The course intends to expose to students the principles involved in farm animals and crop production. It is also to help students to appreciate the importance of animal and crop production to humans. Students will realize that the application of the scientific method of animal rearing minimizes waste and reduces the burden for the farmer.

INS 232: Atmosphere, Climate and Earth Movement

The course is designed to help students understand the need to conserve the land, atmosphere and climate. Students will learn the types of human behaviours that cause damage to the atmosphere and the consequent effects of atmospheric layer depletion. Also, students will study how the earth's movements cause great havoc to human habitations.

INS 122: Ecology

This course is designed to introduce students to the basic elements and concepts of ecology. It highlights the challenges encountered in sustaining the world's natural resources, including the diminishing biological diversity and the consequences of increasing human population as pollution.

PSC 353: Research Methods in Science Education

This course is designed to prepare students to meet the requirements of effectively undertaking research and presenting a report as part of the programme of study and to also use the skills acquired whenever necessary.

INS 814: Environmental Management

The course is designed to introduce students to various ways of managing the environment sustainably. Students will also learn the types of human behaviours that cause damage to the atmosphere and the consequent effects of unsustainable use of natural resources.

ENVS 816C Mineral Resources Exploration & Risk Management

The course is designed to offer an in-depth study of the exploration, evaluation, and responsible management of mineral resources. This course focuses on the principles and practices of mineral exploration, geological assessment, and the mitigation of associated risks.

ENVS 813 Environmental Impact Assessment & Management

The course discusses standard methods employed to conduct environmental and social

impact assessments of developmental projects. It also looks at concepts of Environmental Management Systems and Implementation Procedures

Student Development:

- Counsellor for Integrated Science students.

Membership of Professional Association(s)

- | | |
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| 1. International Society for Development and Sustainability
to date | October 2022 |
| 2. Ghana Science Association | 2022 to date |

Community Service:

3. Development of Disaster Risk Assessment in the context of climate change in Effutu Municipality
4. Development of MPhil modules for Integrated Science Education
5. Development of seven (7) course modules for CODEL
6. Research Seminar undergraduate student (Integrated Science Education)
7. Thesis Assessment for MPhil Science Education, University of Education, Winneba
8. Thesis Assessment for MPhil Science Education, University of Education, Winneba
9. Thesis Assessment for MEd Education Programme, University of Education, Winneba
10. Thesis Assessment for Post Graduate Education University of Education, Winneba
11. Thesis Supervision and Assessment for Integrated Science Education, University of Education, Winneba
12. Thesis supervision for Post Graduate Education, University of Education, Winneba

Referees:

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A handwritten signature in blue ink, appearing to read "A. Asang". The signature is written over a horizontal line and includes some scribbles and a small circle above the first part of the name.