

Maha Reda

Teaching Assistant

Al-Fayrouz Neighborhood, Luxor, Egypt

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EXPERIENCE

Physics And Electronics Teaching Assistant,

2022 – 2023

Luxor Higher Institute of Engineering and Technology | Luxor, Egypt

- Assisted in delivering 6 undergraduate courses in Physics and Electronics, providing support to professors in lectures and lab sessions with classes ranging from 30 to 120 students.
- Conducted over 50 lab experiments and 20+ in-class demonstrations to enhance students' understanding of key concepts such as circuit analysis, semiconductors, and optical systems.
- Guided students in using advanced lab equipment like oscilloscopes, multimeters, and signal generators, training more than 150 students in lab safety and hands-on skills.
- Graded 200+ lab reports and 300+ assignments per semester, ensuring accurate assessments, feedback, and alignment with academic goals.
- Assisted in developing instructional materials, including 10 new lab manuals and problem sets, improving course engagement and student learning outcomes.
- Supported 5 research projects related to electronic circuits and physics simulations, helping students apply theoretical knowledge in practical and innovative ways.
- Collaborated with faculty to align 20+ lectures and 10 lab activities, creating a cohesive and engaging learning experience for students.
- Developed interactive teaching modules using MATLAB and PSpice, improving students' ability to simulate and understand complex electronic circuits and physical phenomena.

Mathematics Teaching Assistant,

2018 – 2021

Luxor Higher Institute of Engineering and Technology | Luxor, Egypt

- Conducted weekly tutorial sessions for 20-30 students per class, leading to an average grade improvement of 15% among participants.
- Graded over 400 assignments and exams per semester, ensuring 100% accuracy in evaluation and feedback.
- Developed and implemented 3 workshops per semester, resulting in a 25% increase in student engagement and abilities.
- Provided one-on-one tutoring to 15+ struggling students, leading to a 30% improvement in their overall performance and understanding of key concepts.
- Collaborated with 4 faculty members to design assessments and course materials, helping to improve curriculum structure and student comprehension by 20%.
- Managed course content and student communications on learning management systems (e.g., Moodle, Blackboard), ensuring 100% timely delivery of assignments and grades.

EDUCATION & CERTIFICATION

- Q1. 2023 – **Effective Teaching and Learning Strategies for Higher Education Colleges and Institutes.** – The National Authority for Quality Assurance and Accreditation of Education.
- Q1. 2023 – **External Review for Higher Education Colleges and Institutes** - The National Authority for Quality Assurance and Accreditation of Education.
- Q1. 2023 – **Self-Assessment for Higher Education Colleges and Institutes** - The National Authority for Quality Assurance and Accreditation of Education.
- Q1. 2023 – **Examination Systems and Student Assessment for Higher Education Colleges and Institutes** - The National Authority for Quality Assurance and Accreditation of Education.
- Q1. 2023 – **Program and Course Description and Learning Outcomes Assessment for Higher Education Colleges Institutes** -The National Authority for Quality Assurance and Accreditation of Education.
- Q1. 2023 – **Strategic Planning for Higher Education Institutions** - The National Authority for Quality Assurance and Accreditation of Education.
- Q2. 2022 – **Doctor Philosophy (PhD) in physics “Measurement of natural radionuclides in some soil and sand samples from different sites in Luxor governorate”** – Faculty of Science, Physics Department, South Valley University, Egypt.
- Q3. 2010 – **Master of Science (MSc) in physics** – Faculty of Science, Physics Department, South Valley University, Egypt.
- Q4. 2007 – **Bachelor of Science in Physics** – 1st class Faculty of Science, Physics Department, South Valley University, Egypt.

SKILLS

Personal Skills

- **Facilitated Communication:** Engaged effectively with over **100 students** and faculty members through active listening and clear dialogue.
- **Resolved Problems:** Identified and addressed challenges in academic settings, providing solutions that improved student performance by **15%**.

- **Collaborated in Teamwork:** Worked closely with **5 faculty members** and peers to achieve educational objectives, enhancing the learning environment.
- **Demonstrated Leadership:** Mentored **20+ students** in academic and extracurricular activities, fostering their personal and academic growth.
- **Organized Tasks:** Managed multiple responsibilities efficiently, meeting **100%** of deadlines for assignments and projects.
- **Ensured Accuracy:** Conducted thorough checks on grading and feedback, maintaining an accuracy rate of **100%**.
- **Exhibited Patience:** Provided empathetic support to students, improving engagement and learning outcomes.
- **Performed Numerical Analysis:** Analyzed and interpreted quantitative data, contributing to curriculum development.
- **Adapted Teaching Methods:** Modified instructional strategies to meet the needs of **30+ diverse learners** in the classroom.
- **Communicated Effectively:** Utilized both verbal and nonverbal communication skills to engage students and facilitate discussions.
- **Embraced Feedback:** Actively sought and implemented constructive criticism to enhance teaching effectiveness.

Key Skills

- **Ensured Accuracy:** Conducted thorough checks on grading and feedback, maintaining an accuracy rate of **100%**.
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- **Embraced Feedback:** Actively sought and implemented constructive criticism to enhance teaching effectiveness.

Computer Skills

- **Utilized Microsoft Office Suite:** Proficient in Word, Excel, and PowerPoint for creating educational materials.
- **Navigated Learning Management Systems:** Experienced with LMS platforms such as Moodle and Blackboard to manage coursework and student communications.

Languages

- **Arabic** Native proficiency
- **English** Fluent (written and spoken)

PUBLICATIONS

- **N. K. Ahmed, A. Abbady, H. H. Negm, M. M. Reda, "Study of radionuclides and radon exhalation rate in soil and sand samples from Tiba, Luxor governorate," World Journal of Nuclear Science and Technology, vol. 9, pp. 84-95, 2019.**
- **N. K. Ahmed, A. Abbady, H. H. Negm, M. M. Reda, "Investigation of radium content and radon exhalation rates in archeological areas in Luxor governorate," International Journal of Scientific Research & Engineering Trends, vol. 6, no. 4, pp. 2967-2972, 2020.**
- **N. K. Ahmed, A. Abbady, H. H. Negm, M. M. Reda, "Activity concentration of ^{226}Ra , ^{232}Th and ^{40}K in some samples from elshaghab region, Luxor governorate, Egypt based on artificial neural network (ANN)," Research Inventy: International Journal of Engineering and Science, vol. 11, no. 8, pp. 42-74, 2021.**
- **H. H. Negm, N. K. Ahmed, A. Abbady, M. M. Reda, " Feasibility study of using the artificial neural network modeling for estimation the radiological levels for the environmental samples,"**