UMAIR KHAN

STEM Educator | IGCSE Maths & Physics | A-Level Physics | Olympiad Coach

Riyadh, KSA | +966 59 3735382 | umair626@gmail.com | Valid & Transferable Iqama

Professional Summary

Visionary STEAM educator with a proven 8+ year track record of delivering exceptional student outcomes in **CAIE (Cambridge) O-Level Mathematics, O-Level Physics and A-Level Physics**. As an accomplished Olympiad coach and **exam preparation expert**, I specialize in a results-driven approach through project-based learning and inquiry-driven instruction. My mastery of exam strategies and content has consistently led to students achieving top-tier scores and international distinctions.

Key Achievements

- Achieved **73% A/A*** in A-Level Physics (CAIE May/June 2025): 7 **A***s, 4 **As**, 4 **Bs** out of 15 students.
- Mentored a student who received Honorable Mention at the International Physics Olympiad (IPhO) Paris 2025.
- Achieved **100% A/A*** in O-Level Physics (CAIE May/June 2024): 24 A*s, 15 As out of 39 students.
- Achieved **100% A*** in O-Level Mathematics (CAIE May/June 2023); two students awarded "Top in the World" distinction.
- Led students to national team selections for IPhO 2025, INSO 2025 finalists, and medals in AMC 8, AoPS, F=ma competitions.
- Secured 2 Gold, 2 Silver, 2 Bronze, and multiple Honorable Mentions in Physics Bowl 2024.
- Employee of the Year – SundarSTEM School, 2024.

Professional Experience

Head of Physics Department / Senior Physics & Secondary Mathematics Teacher
Sundar STEM School – Lahore, Pakistan | Aug 2021 – Jun 2025

- Delivered engaging STEAM-based lessons in Physics and Mathematics aligned with international curricula.
- Fostered a learning environment centered on innovation, collaboration, and critical thinking for gifted, multilingual students.
- Designed and implemented hands-on projects and interdisciplinary units to prepare students for Olympiads and STEM competitions, resulting in national and international distinctions.
- Utilized educational technology and digital pedagogy to enhance student engagement skills and curriculum delivery.

- Integrated online learning platforms and resources, such as Physicsclassroom.com, Khan Academy, and PhET simulations, to provide differentiated instruction and enhance conceptual understanding.
- Served as House Master, leading and training students in a range of extracurricular activities, fostering leadership skills and a strong sense of community.
- Contributed to the student counseling team, providing guidance and support to students on academic and personal matters to ensure holistic development.
- Served as Examination Incharge, managing student assessments, performance analysis, and parent-teacher communications.
- Collaborated with other educators to enhance the school's STEAM initiatives.
- Developed strong classroom management and instructional strategies that cater to diverse learning needs.

Principal & STEM Curriculum Coordinator

MM School System – Risalpur, Pakistan | Feb 2020 – Apr 2021

- Designed and implemented a modern, skills-based STEAM curriculum focusing on critical thinking, problem-solving, and real-world applications.
- Introduced blended learning models and digital tools to personalize instruction and improve student engagement.
- Supervised the integration of STEM and inquiry-based learning across multiple subjects and grade levels.
- Coordinated student enrichment activities, including hands-on projects like science fairs, robotics clubs, and coding competitions.
- Developed teacher mentorship programs to support continuous professional growth and pedagogical innovation.
- Led strategic academic planning and resource optimization to improve school performance and resilience during the COVID-19 pandemic.
- Facilitated faculty workshops and training on digital pedagogy, student-centered instruction, and assessment methods.
- Maintained regular communication with parents and stakeholders to support student development and school initiatives.

Visiting Lecturer – Electrical Engineering

Air University – Islamabad | Sep 2018 – Feb 2019

- Delivered lectures and practical labs on FPGA-based digital system design using Verilog/VHDL, integrating real-world application through hands-on projects and lab exercises.
- Mentored senior students on embedded system capstone projects, focusing on system integration and problem-solving.
- Developed customized assignments, lab exercises, and mini-projects to reinforce hardware description language concepts.

- Integrated simulation tools (ModelSim, Vivado) to visualize and analyze hardware behavior and timing.
- Assessed student performance through quizzes, lab evaluations, and project presentations, providing timely feedback.
- Collaborated with faculty to update course content and improve teaching methodologies.
- Organized seminars and guest lectures to expose students to emerging technologies and industry trends.
- Supported curriculum review processes to align academic offerings with industry and research advancements.

Research Associate – Embedded Computing Lab

Information Technology University – Lahore, Pakistan | Feb 2017 – Jun 2018

- Conducted research on approximate computing to optimize performance and energy efficiency in embedded systems.
- Designed and simulated custom cache architectures using GEM5 to evaluate trade-offs in latency, power, and area.
- Developed architectural models for multi-core processors with optimized memory hierarchies.
- Contributed to hardware-software co-design frameworks for embedded applications to enhance system integration.
- Utilized Verilog and Python for simulation, modeling, and performance evaluation of embedded architectures.
- Presented research findings at internal seminars and contributed to academic publications.
- Collaborated with multidisciplinary teams to align research goals with practical engineering challenges.
- Managed project timelines and documentation to meet research milestones and reporting requirements.

Education

- **Master of Science** | LUMS – Lahore, Pakistan | 2016
- **Bachelor of Science** | UET – Khyber Pakhtunkhwa, Pakistan | 2013

Professional Skills

- STEAM-based lessons
- Project-based learning
- Interdisciplinary instruction
- Classroom management
- Student engagement skills
- Educational technology
- Curriculum design & planning

- American or international curricula (IGCSE/O & A Level, IB MYP & DP Familiarity)
- Olympiad & Gifted Education Mentoring
- Assessment & Performance Analysis
- Excellent communication and collaboration abilities
- Digital Teaching Tools (Zoom, Google Classroom, LMS)
- Currently reside in Riyadh, Saudi Arabia

Trainings & Certifications

- Google Certified Educator Level 1 (Expected Sep 2025)
- Activity Based Learning by Oxford University Press Pakistan
- Effective Classroom Teaching by Ben Huar Renowned Mathematician
- Inquiry based learning techniques

Languages & Extracurriculars

- **Languages:** English (Fluent), Urdu (Native), Arabic (Basic)
- **Extracurriculars:** Cricket & Football Coaching, STEM Club Advisor