

ARFA FAROOQ

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Professional Summary

Mathematics educator with 7+ years of experience teaching advanced calculus and applied mathematics, proven ability to improve student outcomes, and a research background in biomedical mathematical modeling.

Research and Publications

- *Impact of Induced Magnetic Field on Synovial Fluid with Peristalsis Flow in an Asymmetric Channel.*
- Published in *Journal of Magnetism and Magnetic Materials*, Volume 446, January 2018.

Cited in 43 publications, this research contributed to advancements in applied mathematical modeling in biomedical contexts.

Teaching Philosophy

Passionate about fostering critical thinking and problem-solving skills through engaging and interactive teaching methods. Committed to creating an inclusive learning environment that inspires students to reach their full academic potential.

Professional Development

- **Participant**, National Conference on Mathematical Sciences, International Islamic University, Islamabad (April 2017)
- **Workshop Attendee**, Teaching Skills and Pedagogical Techniques, Punjab Public Service Commission (April 2014)

Key Strength

- Improved student pass rates by **20%+** through interactive teaching strategies.
- Published researcher (**43 citations**) bridging math theory with real-world applications.
- Mentored **50+ students**, with 10 securing competitive scholarships.

Career Objective

Dedicated and passionate Mathematics Teacher with 8 years of experience seeking to leverage a proven track record of improving student test scores and fostering a genuine love for problem-solving. Eager to apply innovative curriculum design and differentiated instruction strategies to help students of all skill levels achieve academic excellence.

Education

M. Phil. in Applied Mathematics

International Islamic University, Islamabad, Pakistan (2015–2017)

- CGPA: 3.64/4.00
- Thesis: *Advanced Computational Methods for Nonlinear Differential Equations*

Masters in Mathematics

University of Gujrat, Pakistan (2010–2012)

- CGPA: 3.74/4.00
- Focus: Graduate-level studies in mathematical modeling and analysis

Bachelor of Science in Mathematics and Physics

University of the Punjab, Pakistan (2005–2007)

- Academic Percentage: 64.25%

Work Experience

Visiting Lecturer

- Bahriya University Islamabad, Pakistan (September 2024–Present)
- International Islamic University, Islamabad, Pakistan (Sep 2017–Aug 2019; Sep 2023–Aug 2024)

- Designed and delivered advanced calculus and analytical mechanics courses, improving overall pass rates by 20% over two years.
- Mentored 50+ students, with 10 receiving national scholarships for higher education.
- Introduced interactive teaching strategies, incorporating MATLAB and Mathematica for enhanced learning outcomes.

Visiting Lecturer

FG College for Women, Islamabad, Pakistan (Nov 2018–Mar 2019)

- Developed and implemented student-centered lesson plans, improving undergraduate mathematical comprehension by 25%.
- Taught foundational mathematics to 50+ students, fostering analytical and problem-solving skills.

Senior Secondary Mathematics Teacher (SSE Mathematics)

Govt. Girls High School Vario, Sialkot, Pakistan (Sep 2014–Aug 2015)

- Enhanced student engagement and performance, with 80% achieving above-average grades in final exams.
- Integrated innovative teaching aids to simplify complex concepts, resulting in a 15% improvement in comprehension levels.

College Trainee Internee

Govt. College and University for Women, Sialkot, Pakistan (Sep 2012–Aug 2014)

- Assisted in curriculum development and classroom management,

Technical and pedagogical Skills

- **Software:** Mathematica, MATLAB, Microsoft Office (Word, Excel, PowerPoint), Scientific Workplace.
- Teaching: Differentiated Instructions, Stem Curriculum Design, Organizing Multicultural Classrooms Management.
- **Pedagogical Tools:** Curriculum Design, Online Teaching Platforms

Personal Interests

- Academic Research
- Gardening and Painting
- Handicrafts
- STEM Education Advocacy

contributing to a 10% increase in student participation.

Gained practical experience in delivering lectures and conducting assessments.

Professional Development

Participant, National Conference on Mathematical Sciences, International Islamic University, Islamabad (April 2017).

Workshop Attendee, Teaching Skills and Pedagogical Techniques, Punjab Public Service Commission (April, 2014).

Professional Competencies

- Higher Education Teaching
- Curriculum Development and Delivery
- Student Mentor-ship and Guidance
- Research-Oriented Instructional Techniques

Professional References

Available upon request.