

Md Ibrahim Kholil

Curriculum Vitae

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Basic Information

Citizenship and Languages

Citizenship: Citizen of United States

Languages: Bangla and English

Education

- 2018-2023 **PhD in Applied Mathematics**, Wichita State University (WSU), Wichita, Kansas.
Supervisor: Ziqi Sun
Dissertation Title: *Uniqueness theorems for inverse boundary value problems in quasilinear anisotropic media*
Research Interests: *Partial differential equations, inverse problems, inverse boundary value problems, and differential geometry*
- 2014-2017 **Master of Science in Mathematics**, Emporia State University (ESU), Emporia, Kansas.
Supervisor: Daniel Miller
- 2010-2012 **Master of Science in Mathematics**, Jagannath University, Dhaka, Bangladesh.
- 2006-2011 **Bachelor of Science in Mathematics**, Jagannath University, Dhaka, Bangladesh.

Grants, Honors, Scholarships, Fellowships & Awards

- 2021-2023 ***Evan J & L. Darlene Fearey Endowed Mathematics Fellowship*** (WSU)
- 2021-2023 ***Math Dept Telephone Campaign Scholarship*** (WSU)
- 2020-2023 ***Miller Mathematics Scholarship*** (WSU)
- 2021-2022 ***John & Kay Morse Endowed Graduate Fellowship*** (WSU)
- 2020-2022 ***Arthur J Hoare Endowed Scholarship*** (WSU)
- 2020-2022 ***Merit-Based Stipend Increase*** (WSU)
Semester-wise graduate teaching assistant salary increment was given by the graduate school to graduate students who demonstrate outstanding progress in their program.
- 2019-2020 ***Outstanding GTA Award*** (WSU)
Annual award was given by the Mathematics and Statistics Department to graduate students who demonstrate excellence in teaching.
- 2019-2020 ***Evan J & L. Darlene Fearey Endowed Mathematics Fellowship*** (WSU)
- 2019-2020 ***Math Dept Telephone Campaign Scholarship*** (WSU)
- 2016-2017 ***John W. Carlson Graduate Award in Mathematics*** (ESU)
- 2016-2017 ***Muslim Student Association Membership Award*** (ESU)
- 2016-2017 ***Arabic Student Association Membership Award*** (ESU)
- 2014-2017 ***Diversity Scholarship*** (ESU)

- 2014 ***GIVE (Getting Involved with Volunteering in Emporia)*** (ESU)
 2013-2014 ***EducationUSA Volunteer Award.*** USA Embassy, Dhaka, Bangladesh
 2013 ***Opportunity Fund.*** USA Embassy, Dhaka, Bangladesh

Publications and Talks

Publications

- [1] M. Kholil and Z. Sun, *A uniqueness theorem for inverse problems in quasilinear anisotropic media*, Inverse Problems and Imaging, 16(6): (2022), 1571-1577. Doi: 10.3934/ipi.2022008
- [2] M. Kholil and Z. Sun, (2023) *A uniqueness theorem for inverse problems in quasilinear anisotropic media II*, Inverse Problems and Imaging, Doi: 10.3934/ipi.2023024.

Talks

- September 2022 *A uniqueness theorem for inverse problems in quasilinear anisotropic media.* 60 Minutes Talk, Geometry, Topology, and Analysis seminar, Wichita State University.
- April 2022 *A uniqueness theorem for inverse problems in quasilinear anisotropic media.* 50 Minutes Talk, Graduate Seminar, Given online.
- March 2022 *A brief introduction of inverse problems and linearization technique on Dirichlet to Neumann Map.* 50 Minutes Talk, Graduate Seminar, Given online.

Teaching Experience

Lecturer

- Summer 2023 ***Wichita State University,***
 Wichita, Kansas.

I instructed Calculus-II in online. As part of the course format, I uploaded pre-recorded lecture videos on a weekly basis. Within these lectures, I assigned quizzes for the students. To ensure active participation, students were required to submit two or three quizzes each week through the Blackboard platform. During the summer class, I dedicated three to four hours every weekday to being available online. This allowed students to ask questions whenever they needed assistance, and I prioritized responding promptly and providing them with immediate answers.

Graduate Teaching Assistant

- Fall 2018 – Spring 2023 ***Wichita State University,***
 Wichita, Kansas.

I am an instructor for the following courses: Beginning Algebra, Intermediate Algebra, Precalculus, Calculus I, Calculus II, and Business Calculus. Specific responsibilities for the courses include evaluating and grading examinations, maintaining a schedule for tutoring, and regular office hours to meet with students to discuss grades or to complete required grade-related paperwork, and respond to student emails. I also manage lab hours related to the courses.

- Spring 2018 ***University of Missouri,***
 Columbia, Missouri.

I have worked as a teaching assistant for two undergraduate online courses in College Algebra. The courses describe a review of exponents, order of operations, factoring, and simplifying polynomial, rational, and radical expressions. variables, as well as inequalities. Specific responsibilities include pre-calculus: evaluating and grading examinations. In addition, I maintained a schedule for tutoring and regular office hours to meet with students to discuss grades or to complete required grade-related paperwork.

Spring 2016 – ***Emporia State University,***

Fall 2017 *Emporia, Kansas.*

I have taught two undergraduate courses of College Algebra each semester from spring 2016 to fall 2017. The courses explain the application of algebra in daily life, such as using a function to describe population growth and decay and bank loans and interest. Specific responsibilities include: evaluating and grading examinations, giving assignments, and recording grades. I developed course materials, such as syllabi, visual aids, answer keys, and supplementary notes. I also designed the internet portion of the course on Canvas. This included setting up the course shell and creating online homework. In addition, I maintained a schedule and regular office hours to meet with students to discuss grades or to complete required grade-related paperwork, responded to student emails, and conducted a review class before exams.

Academic Coach

Fall 2015 ***Emporia State University,***

Emporia, Kansas.

I worked with two college algebra instructors in the classroom. After lectures, I reviewed class materials with students and the instructor. I taught students study skills, note-taking skills, and test-taking skills and strategies. I assessed students' progress during class sessions. I developed teaching materials, such as handouts, study materials, and quizzes.

Tutoring

2011-2014 ***College Math Private Tutor,***

Dhaka, Bangladesh.

I explained topics such as linear functions, quadratic functions, logarithms, exponentials, and graphs. I prepared lesson plans and learning modules for tutoring sessions based on students' needs and goals. I provided notes for crucial chapters. Before each exam, I gave quizzes to students to understand which topic needed to be reviewed.

2006-2012 ***High School General Math Private Tutor,***

Dhaka, Bangladesh.

I provided private tutoring to an individual to improve academic performance, improve occupational skills, and prepare for academic and occupational tests.

2008-2010 ***Sunrise Coaching Center,***

Dhaka, Bangladesh.

I provided instructions such as tutoring, homework, and practice sheets to small groups of students. I supervised students in coaching center classrooms and on field trips. I maintained attendance records, graded homework, and tests, and recorded results.

Online Teaching Experience

Graduate Teaching Assistant

Spring 2020 – ***Wichita State University,***

Spring 2021 *Wichita, Kansas.*

I taught multiple online courses, including College Algebra, Business Calculus, Pre-calculus, and Calculus II. These courses, although traditionally in-person, were taught online via Zoom during the COVID-19 pandemic. Duties included preparation of course materials, hosting online office hours, hosting course exams online and in person, and teaching course material through various web platforms.

Spring 2016 – **Emporia State University,**

Fall 2016 *Emporia, Kansas.*

I taught an undergraduate online course, College Algebra. I used Pearson MyMathLab to teach the class. I set up my own courses and provided training in setting up a course for another GTA. I communicated with students regularly about their coursework and questions. In addition, I arranged extra review classes before each exam. I provided supplemental notes on topics such as slope, linear and quadratic equations, inequalities, logarithms, exponential, and word problems.

Data Analysis & Administrative Experience

Data Analyst

Summer 2017 **Emporia State University,**

Information Technology, Emporia, Kansas.

I have analyzed raw data, draw conclusions, and developed recommendations. I manipulated, cleaned, and processed data using Excel and SQL. Data entry, data auditing, creating data reports, and monitoring all data for accuracy were my main responsibility. I have carried out specified data processing and statistical techniques.

Founder and Managing Director

2009-2013 **Imperial Coaching Center,**

Dhaka, Bangladesh.

I enforced administrative policies and rules governing students. I advised students on issues such as course selection, progress toward graduation, and career decisions. I directed, coordinated, and evaluated the activities of personnel, including support staff engaged in administering academic institutions. I discussed assigned duties with classroom teachers to coordinate instructional efforts. I presented subject matters to students under the direction and guidance of teachers, using lectures, discussions, or supervised role-playing methods. I participated in student recruitment, selection, and admission. I formulated strategic plans for the institution. I communicated students' progress to students, parents, and teachers in written progress reports, in person, by phone, and mail.

Computer skills

Programming Python, SAS, R, MATLAB

Languages

Database SQL, MySQL

Campus Involvement

2018-Present Math Club member, Wichita State University

2018-Present Bangladesh Student Association(BSA) member, Wichita State University

2018–2023 Muslim Student Association (MSA) member, Wichita State University

2016–2017 Muslim Student Association (MSA) President, Emporia State University

2016–2017 ESU Cricket Club Vice-President, Emporia State University

Professional Affiliations

2016-Present Member of the Kappa Mu Epsilon

2015-2023 Student member of the American Mathematical Society

2018-2023 Student member of the Society for Industrial and Applied Mathematics