SANG MOO LEE
PhD (ABD), M.T., Hons B.Sc., OCT
Mathematics & Computer Science Educator | Mathematics Education Researcher
sangmoo.lee@mail.utoronto.ca

ACADEMIC PROFILE

Mathematics education researcher and practitioner specializing in the conceptualization of critical thinking in mathematics classrooms. Over ten years of experience teaching Grades 7-12 mathematics and computer science, alongside post-secondary instructional experience in blended and online learning environments. Bridging classroom practice and research, with a focus on inquiry-based learning, equity-oriented pedagogy, assessment design, and technology-enhanced instruction. Received national and international recognition for innovative STEM pedagogy, including the Prime Minister's STEM Teaching Certificate of Achievement and Rosenthal Prize Finalist distinction.

Teaching Philosophy: Inquiry-driven, equity-oriented, research-informed mathematics education (statement available)

EDUCATION & CERTIFICATION

PhD (Abd) Education - *University of Toronto (OISE)* 2020-Ongoing
Thesis: Conceptualizing Critical Thinking in Math Classrooms

Masters of Teaching - *University of Toronto (OISE)* 2016
Intermediate/Senior Mathematics and Biology
MTRP: Female Teacher Challenges in All Boys Schools

Honours Bachelors of Science - *University of Toronto* 2014
Mathematics Major, Human Biology Major, Physics Minor

OCT - *Ontario Teacher Certified* 2017
I/S Honours Specialist Mathematics, Biology, Computer Studies

AWARDS & HONOURS

Prime Minister's STEM Teaching Certificate of Achievement - 2022
Government of Canada
Certificate for excellence in STEM teaching

Rosenthal Prize Finalist in Mathematics Innovative Teaching - *Momath Museum* 2025
Final Round of Innovative Math Teaching Competition

Biggar & Hedges Technology Integration Award - *OISE* 2016
$5000 Prize for innovative integration of technology in math classroom

PROFESSIONAL APPOINTMENTS

Post-Secondary Instructor - *Mohawk College* 2017-2020
Web Development Instructor & Blended Learning Curriculum Design

- Designed and taught blended JavaScript and MERN-based courses using Canvas LMS.
- Earned 3.9/4.0 student satisfaction in formal college evaluations.
- Developed equity-informed assessment strategies for diverse adult learners.
- Integrated authentic, project-based tasks and UDL principles into course structure.
- Invited to teach extra courses and develop course content.

Undergraduate Physics Teaching Assistant - *University of Toronto* 2009-2010
PHY138H: Introductory Physics

- Facilitated tutorials and inquiry-based problem-solving sessions.
- Supported first-year students' academic transition through conceptual coaching and formative feedback.

TEACHING APPOINTMENTS

Secondary STEM Educator - *The Linden School (Grades 7-12)* 2016-Ongoing

- Designed and taught over 60 STEM courses including MHF4U, MCV4U, MCR3U, MPM2D, MTH1W, Gr.8 math, Gr.7 math, SBI3U, SBI4U, SNC2D, ICS2O, ICS3U, and ICS4U.
- Implemented equity-focused pedagogy, including differentiated entry points, culturally responsive tasks, and trauma-informed practices.
- Developed innovative inquiry lessons recognized internationally (e.g., hoverboard π activity, Rosenthal Prize finalist).
- Created ministry-aligned curriculum documents, unit plans, and assessment frameworks grounded in OISE-aligned principles (Assessment for/As/Of Learning, UDL, student voice).
- Integrated Desmos, GeoGebra, Python, JavaScript, and interdisciplinary real-world projects.

- Supported students who achieved distinction in external mathematics and STEM competitions, including:
  - Waterloo and Caribou math contests (top-percentile results)
  - Desmos Global Art Contest top 20 finalists
  - School STEM fair category winners in mathematics, finance, and computational modeling
  - Community programming and engineering design showcases
- Mentored diverse learners toward authentic academic and artistic achievement, demonstrating the impact of inquiry-based, interdisciplinary, and technology-enhanced learning.

Secondary Mathematics Teacher - *Clinton International College* 2009-2010

- Taught senior mathematics including Functions, Advanced Functions, and Calculus & Vectors.
- Supported international students transitioning to Ontario curriculum expectations.

Private Post-Secondary Tutor - *University of Waterloo & University of Toronto* 2010-2016

- Tutored first-year calculus and combinatorics.
- Supported development of problem-solving proficiency and proof-writing skills.

ACADEMIC & PROFESSIONAL SERVICE

Peer Reviewer - *NCTM (Mathematics Teacher: Learning and Teaching)* 2025

Associate Teacher - Master of Teaching (OISE) 2023-2025

- Mentored and supervised teacher candidates during practicum placements in secondary mathematics classrooms.
- Modeled inquiry-based, equity-oriented mathematics instruction aligned with Ontario curriculum expectations.
- Provided formative and summative feedback on lesson planning, instructional decision-making, classroom management, and assessment practices.
- Collaborated with faculty advisors to support teacher candidate development and professional growth.

PUBLICATIONS

Lee, S. (2025). Guilty Teacher. EdCan Network. Submitted

Lee, S. (2026). Turning Economic Events into Pedagogy. OAME Gazette.	In Press
Lee, S. (2025). Problems to Ponder. NCTM Mathematics Teacher.	Under Review

CONFERENCES

Lee, S. (2025). Male Educator's Perspective in All-Girls Schools. ICGS Sydney.	Presenter
Lee, S. (2026). Conceptualizing Critical Thinking in Math Classrooms. Fields Institute MathEd Research Day.	Accepted
Alaskarov et al. (2026). Romans in Cyberspace: Interdisciplinary Storytelling Through Video Game Development. ICGS. Toronto.	Accepted

PROFESSIONAL DEVELOPMENT

ARAO Training	Ongoing
OAME and National mathematics education conferences	Ongoing
ISOMA Mathematics Education Conference	2016
STEM and Programming Training	2018

TEACHING & SCHOLARSHIP SKILLS

Pedagogy

- ✓ Inquiry-based instruction, critical thinking, metacognition
- ✓ Equity-oriented and culturally responsive pedagogy
- ✓ UDL, differentiated instruction, backward design
- ✓ Ontario curriculum design and assessment frameworks

Educational Technology

- ✓ Canvas, Google Classroom
- ✓ Desmos, GeoGebra, Python, JavaScript
- ✓ Blended and online instructional design

Research

- ✓ Qualitative case study methodology

- ✓ Semi-structured interviewing and thematic coding
- ✓ Ethics protocol development and literature synthesis

ADDITIONAL ACADEMIC AND PROFESSIONAL CONTRIBUTIONS

- ✓ Basketball Coach
- ✓ Yearbook Supervisor
- ✓ Tutoring for students impacted by COVID
- ✓ EQAO Scorer
- ✓ Math Jump Workbook (Answer Key)
