

DERAR SERHAN
Arizona State University
e-mail: derar@asu.edu

EDUCATION

Ph.D. in Curriculum and Instruction (Mathematics Education Research)

Arizona State University, AZ.

Dissertation: "*The effect of using graphing calculators on students' concept images of the derivative at a point*". Advisor: Professor Alfinio Flores.

Master of Natural Science (Mathematics)

Arizona State University, AZ.

Master of Science in Mathematics

Yarmouk University, Jordan.

Thesis: "*Isomorphisms of Polynomial Rings in Two Variables*"

Bachelor of Science in Mathematics

Yarmouk University, Jordan.

TEACHING EXPERIENCE

Instructor of Mathematics

Arizona State University, Arizona.

Aug. 2015- Present

- Taught a variety of courses: Brief Calculus, Calculus for Engineers I, College Algebra, College Mathematics, Enhanced Freshman Mathematics, Mathematics for Business Analysis and Pre-Calculus.
- Taught using variety of teaching modalities: Adaptive, Face-to-Face, Online & Sync.
- Supervised students from the Honors College.
- Reviewed Calculus textbooks and web-based systems for future adaption.
- Developed a study abroad program.
- Used different web-based online systems such as ALEKS, MyMathLab and WebAssign.
- Served on the Residency Classification Appeals Board, 2017- 2019, 2020.

Assistant Professor

Emirates College for Advanced Education, UAE.

Aug. 2014-2015

- Taught mathematics courses for student teachers, topics included: Algebra, Basic Probability and Statistics.
- Reviewed course outcomes for Math courses, course outlines & textbooks.
- Developed, with other colleagues, a Ph.D. program in Education.
- Developed, with other colleagues, a math assessment test for high school students.

Mathematics Instructor

University of Redlands, California.

Sep. 2011-Dec. 2013

- Taught Finite Mathematics course, topics included: Logic, probability, descriptive statistics and solving systems of linear equations.

Instructor of Mathematics

Arizona State University, Arizona.

Aug. 2005- Aug. 2011

- Taught a variety of math courses including: Brief Calculus, Calculus, College Algebra, College Mathematics, Mathematics for Business Analysis and Mathematics for Elementary School Teachers.
- Coordinated College Mathematics and College Algebra courses.
- Trained & Evaluated Mathematics Teaching Assistants.
- Supervised and advised students in the Honors College.
- Used MyMathLab and WebAssign as web-based online homework systems.

Faculty Associate

Arizona State University, Tempe, Arizona.

1996-1999, 2001-2011

- Established the Arabic Language program.
- Initiated and developed the Arabic Studies Certificate with other colleagues.
- Developed and directed a summer study abroad program to Jordan.
- Taught Elementary, Intermediate, Culture and Literature Arabic courses.
- Developed and facilitated an Arabic culture online class.
- Organized activities in the International Education Week, ASU.
- Participated in developing the Islamic Studies Certificate, ASU.
- Organized activities for high school students in the Annual Language Fair.
- Organized activities in the International Education Week, ASU.
- Served on the Fulbright and the David L. Boren committees, ASU.

HONORS & AWARDS

- Nominee, Distinguished Teaching Award, College of Liberal Arts and Sciences, Arizona State University, 1998, 1999, 2002 & 2003 U.S.A.
- Nominee, Charles Wexler Teaching Award, Department of Mathematics & Statistics, Arizona State University, 1997, 2003 & 2004 U.S.A.
- Faculty and Academic Professionals Recognition, Student Affairs, Arizona State University, 2002, U.S.A.

PUBLICATIONS

Sample of peer reviewed published articles:

- Serhan, D. (2021). To Sync or Not to Sync? Students' Perceptions of Their Learning in Fall 2020 Sync Classroom During COVID-19 Pandemic. In Jackowicz, S. & Sahin, I. (Eds.), *Online Education during the COVID-19 Pandemic: Issues, Benefits, Challenges, and Strategies*. ISTES Organization.
- Serhan, D. (2020). Transitioning from face-to-face to remote learning: Students' attitudes and perceptions of using Zoom during COVID-19 pandemic. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 335-342.
- Al Rawashdeh, A., Syam, M., & Serhan, D. (2020). Transitioning from face-to-face to online learning: Students' achievements and perceptions of learning Calculus during COVID-19 pandemic. In I. Sahin & M. Shelley (Eds.), *Educational practices during the COVID-19 viral outbreak: International perspectives* (pp. 221–238). ISTES Organization.
- Serhan, D. & Almeqdadi, F. (2020). Students' perceptions of using MyMathLab and WebAssign in mathematics classroom. *International Journal of Technology in Education and Science (IJTES)*, 4(1), 12-17. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1230548.pdf>
- Serhan, D. (2019). Web-Based Homework Systems: Students' Perceptions of Course Interaction and Learning in Mathematics. *The International Journal on Social and Education Sciences (IJonSES)*, 1, 57-62. Retrieved from <https://www.ijonnes.net/index.php/ijonnes/issue/view/2>
- Syam, M. Serhan, D. & Almeqdadi, F. (2019). The Effects of the Flipped Classroom and Peer Instructional Models on Learning Calculus. *The Eurasia Proceedings of Educational and Social Sciences*, 13, 200-205. Retrieved from <https://dergipark.org.tr/en/pub/epess/issue/48443/618910>
- Serhan, D. & Almeqdadi, F. (2018). Pre-service Teachers' Absolute Value Equations and Inequalities Solving Strategies and Errors. *The Eurasia Proceedings of Educational & Social Sciences*, 10, 163-167. <http://dergipark.gov.tr/epess/issue/39111/460176>
- Serhan, D. (2017). Students' Attitudes toward the Use of Adaptive Learning Systems in Learning College Algebra. In P. Resta & S. Smith (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2005-2010). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

- Serhan, D. & Syam, M. (2015). The Effect of Multiple Representations Instruction on Students' Images of The Definite Integral. *Far East Journal of Mathematical Education*, 14 (1), 1-13. <http://www.pphmj.com/journals/articles/1351.htm>
- Serhan, D. (2015). Students' understanding of the definite integral concept. *International Journal of Research in Education and Science (IJRES)*, 1(1), 84-88. <http://www.ijres.net/issue/view/5000007917/showToc>
- Serhan, D. (2014, Nov. 25-27) *Web-based Homework Systems: The sky is the limit*. Conference: International Conference on Web & Open Access to Learning (ICWOAL), Dubai, UAE. IEEE. DOI: [10.1109/ICWOAL.2014.7009224](https://doi.org/10.1109/ICWOAL.2014.7009224)
- Serhan, D. & Syam, M. (2011). Using concept maps as an instructional tool in Calculus. *International Journal of Instructional Media* 38 (1) 79-85.
- Serhan, D. (2010). Online Learning: Through Their Eyes. *International Journal of Instructional Media* 37 (1) 19-24.
- Serhan, D. (2009). Preparing pre-service teachers for computer technology integration. *International Journal of Instructional Media* 36 (4) 439-447.
- Serhan, D. (2009). Pre-service teachers and computer use in the classroom. *International Journal of Instructional Media* 36 (3) 331-338.
- Serhan, D. (October, 2009). Using Concept Maps to Assess the Effect of Graphing Calculators Use on Students' Concept Images of the Derivative at a Point *International Journal for Mathematics Teaching and Learning (IJMTL)* online. <http://www.cimt.plymouth.ac.uk/journal/>
- Serhan, D. (2009). The influence of gender and experience on school principals' computer use. *International Journal of Instructional Media* 36 (2) 153-162.
- Serhan, D. (April, 2007). School Principals' Attitudes Towards the Use of Technology: United Arab Emirates Technology Workshop, *The Turkish Online Journal of Educational Technology (TOJET)*, 6 (2). <http://www.tojet.net/>
- Serhan, D. (May, 2006). The Effect of Graphing Calculators Use on Students' Understanding of the Derivative at a Point, *International Journal for Mathematics Teaching and Learning (IJMTL)* online. <http://www.cimt.plymouth.ac.uk/journal/>
- Serhan, D. (2005). School principals' Attitudes towards the use of technology. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2005* (pp. 2808-2812). Chesapeake, VA: AACE.

CONFERENCES

Sample of conference presentations:

- Serhan, D. (2021, April 01 - April 04). To Sync or Not to Sync? Students' Perceptions of Their Learning in Fall 2020 Sync Classroom During COVID-19 Pandemic. *The International Conference on Research in Education and Science (ICRES)*, Antalya, Turkey.
- Syam, M. & Serhan, D. (2019, November 4- November 5). The Effects of Flipping the Classroom and Peer Instructional Models on Student Learning of Calculus for Business and Economics. *The 5th International Conference on Education*, Al Ain, UAE.
- Serhan, D. & Almeqdadi, F. (2019, April 28 - May 01). MyMathLab & WebAssign: Students' Perceptions of their use in Mathematics. *The International Conference on Research in Education and Science (ICRES)*, Cesme-Izmir, Turkey.
- Serhan, D. (2018, April 28 – May 01). Pre-service Teachers' Absolute Value Equations and Inequalities Solving Strategies and Errors. *The International Conference on Research in Education and Science (ICRES)*, Marmaris, Turkey.
- Serhan, D. (2017, March 05-09). Students' Attitudes toward the Use of Adaptive Learning Systems in Learning College Algebra. *Society for Information Technology & Teacher Education International Conference*, Austin, TX.
- Syam, M. Salim, M. & Serhan, D. (2016, April 24-27). The Effects of Using the Flipped Classroom Model in Teaching and Learning Calculus. *The International Congress & Exhibition on Current Trends on Science & Technology Education (SCITEED) Conference*, Turkey.
- Serhan, D. & Syam, M. (2015, March 14). Students' Conceptual Understanding of the Definite Integral. *13th Annual UAE Math Day*, Paris-Sorbonne University, Abu Dhabi, UAE. [http://www.sorbonne.ae/mathday/UAEMATHDAY2015\(FinalVersion\).pdf](http://www.sorbonne.ae/mathday/UAEMATHDAY2015(FinalVersion).pdf)
- Serhan, D. (2014, Nov. 25-27) Web-based Homework Systems: The sky is the limit. *Conference: International Conference on Web & Open Access to Learning (ICWOAL)*, Dubai, UAE.
- Serhan, D. & Syam, M. (2014, March). Math...Technology...Concept Maps? *Math Science & Technology Education (MSTE) Conference*. College of Education, UAEU, UAE.