

Gerald E. Bilodeau
gbilodeau@massart.edu

Educational Experience

Mathematics Teacher, 2001 - Present

Program Director/Lead Teacher, Mathematics, 2005, 2010-Present

Boston Latin School Boston, MA

- Subjects taught: Linear Algebra and Differential Equations, Calculus AP – AB & BC, Computer Science AP in Java, Honors Precalculus, Geometry.
- Gitner Prize in Teaching, 2011

Visiting Lecturer of Mathematics, 2018 - Present

Mass College of Art and Design Boston, MA

- Taught: Art and Mathematics

Lecturer of Mathematics, 2008 - Present

Northeastern University Boston, MA

- Taught in classroom, hybrid and online formats, Calculus I & II, Precalculus, College Algebra.

Mathematics Teacher, 1983-2001, Chair, Mathematics, 1989-2001, Director of Technology, 1988-2000

Boston College High School Boston, MA

- Subjects taught: Calculus AP – AB & BC, Multivariable Calculus, Programming in C++, Precalculus, Algebra, and Geometry.

Adjunct Professor of Mathematics, 1990 - 2001

Massachusetts Bay Community College Wellesley, MA

- Taught Calculus I & II, Precalculus, College Algebra.
- Implemented first MBCC course using the Web as a distance-learning tool. Organized interactive Web site for Calculus II course.

Associate Instructor of Mathematics, 1980 - 1983

Indiana University Bloomington, IN

- Taught Finite Mathematics, Calculus.
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Education

Indiana University Bloomington, IN

- M.A., Mathematics

Boston College Chestnut Hill, MA

- B.A., Mathematics, *Magna cum Laude*

Publications and Grants

The Discovery of Non-Euclidean Geometry: Parallels in Art, Music and Literature, SCI-MAT/National Science Foundation Summer Fellowship, 1992

Riemann Meets Euler-Mascheroni, Proof Without Words, College Mathematics Journal, Vol. 49, No. 5, November 2018.

Variation of the Mean Value Theorem, American Mathematical Monthly, Problem 10739 October 2000.

Integral of an Involution, College Mathematics Journal, Problem 1034, Vol. 46, No. 4, September 2015.

An Exponential Rule, College Mathematics Journal, Vol. 24, No. 4, September 1993 also in "The Calculus Collection: A Resource for AP and Beyond", Mathematical Association of America, 2009.

Square in the Pythagorean Triangle, College Mathematics Journal, Problem 390, March 1990. Solution noted.

Polynomial Division, College Mathematics Journal, Problem 343, Vol. 20, No. 2, March 1989. Solution noted.

Sum-Free Sets Modulo n , American Mathematical Monthly, Vol. 98, No. 4, April 1991 Problem E3346 1991. Solution noted.

A Trigonometric Inequality, Mathematics Magazine, Vol. 76, No. 1, Problem 1640, February 2003. Solution noted

Two by two idempotent pairs, College Mathematics Journal, Problem 776, May 2005. Solution noted.

Existence of Some Special Central Angles, College Mathematics Journal, Problem 794, January 2006. Solution noted.

Endpoint-Approximations of a Definite Integral, College Mathematics Journal, Problem 797, March 2006. Solution noted.

Slopes of Tangents, College Mathematics Journal, Problem 817, January 2007. Solution noted.

A Derivative Formula, American Mathematical Monthly, Vol. 115, No. 1, Problem 11233, January 2008. Solution noted.

Euler-Mascheroni Meets e , Mathematics Magazine, Problem 1764, February 2008. Solution noted.

Deducing a limit, Mathematics Magazine, Vol. 81, No. 2, Problem 1766, April 2008. Solution noted.

The Limit of an Infinite Product, College Mathematics Journal, Problem 895, Vol. 41, No. 1, January 2010. Solution noted.

The Euler-Mascheroni Constant in the Form of an Integral, College Mathematics Journal, Problem 905, Vol. 41, No. 3, May 2010. Solution noted.

An Intermediate Value Conclusion, Mathematics Magazine, Problem 1824, Vol. 83, No. 3, June 2010. Solution noted.

Derivative Cauchy-Schwarz, American Mathematical Monthly, Vol. 119, Problem 11548, August-September 2012. Solution noted.

A Frenselian Definite Integral, Mathematics Magazine, Problem 1896, Vol. 86, No. 3, June 2013. Solution noted.

A Constant Function with Arcsin, College Mathematics Journal, Problem 961, Vol. 43, No. 5, November 2013. Solution noted.

A Concave Function Inequality, College Mathematics Journal, Problem 993, Vol. 45, No. 1, January 2014. Solution noted.

An Expression of $\ln 2$, College Mathematics Journal, Problem 997, Vol. 45, No. 2, March 2014. Solution noted.

A Zeta Series, Mathematics Magazine, Problem 1930, Vol. 87, No. 7, October 2014. Solution noted.

A Sequence of Pairwise Tangent Disks, Mathematics Magazine, Problem 1936, Vol. 88, No. 1, February 2015. Solution noted.

A Gamma Integral Limit, American Mathematical Monthly, Vol. 123, No. 9, Problem 11808, November 2016. Solution noted.

A recursive sequence related to Egyptian fractions, Mathematics Magazine, Problem 1952, Vol. 88, No. 5, November 2016. Solution noted.

Orthogonal Functions, American Mathematical Monthly, Vol. 124, Problem 11850, May 2017. Solution noted.

A limit of n -norm integrals, Mathematics Magazine, Problem 1954, Vol. 88, No. 5, December 2016. Solution noted.

A family of integrals with value $\pi/8$, Mathematics Magazine, Problem 2012, Vol. 91, No. 1, February 2018. Solution noted.

A Limit of a Power of a Sum, American Mathematical Monthly, Vol. 126, No. 2, Problem 11982, February 2019. Solution noted.

Presentations

Visualizing the New Curriculum: New Frontiers in Introductory Algebra, Graphing Calculator Conference, Northeastern University, January 22, 1994

New Frontiers in Introductory Algebra, NEMATYC Annual Meeting, Mt. Wachusett Community College, April 9, 1994 & Innovation in Math Education Workshop, Middlesex Community College, February 28, 1994