

Gregory D. Goeckel

Professor of Mathematics
Presbyterian College
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Education

Kansas State University, Manhattan, Kansas
Ph.D. in Mathematics, December 1995
Areas of specialization: Linear Algebra and numerical methods
Dissertation: "On Nonaxisymmetric Entry Flow in a Semi-
infinite Circular Tube at Very Low Reynolds Numbers"
Director: Qisu Zou

Kansas State University, Manhattan, Kansas
M.S. in Mathematics, July 1985
Thesis: "On Totally Unimodular Hypergraphs"
Director: Richard Greechie

Marymount College of Kansas, Salina, Kansas
B.S. in Mathematics and Biology, May 1982

Teaching

Presbyterian College

1993 to present

Courses taught:

College Algebra, Trigonometry, Finite Mathematics, Math for
the Liberal Arts, Calculus I and Analytical Geometry,
Calculus II, Calculus III, Calculus IV, Discrete Mathematics,
Applied Calculus, Transition to Advanced Mathematics, Complex
Variables, Linear Algebra, Mathematical Statistics, Computing
Methods for Mathematics and Science, Numerical Methods,
Differential Equations

Developed and taught the Discrete Mathematics course. This
course was developed as a required course for the Option III
Mathematics major under mandate from NCATE as well as a
requirement for the Computer Science major

Developed and taught the Complex Variables course.

Brought the Numerical Methods course into the Mathematics
department; it is now cross-listed with the Computer Science
Department

Developed and taught an Introduction to Inquiry course "The
Worlds of Carl Sagan" (with Michael Nelson)

Developed and taught the Computing Methods for Mathematics
and Science

Service

Committees Served upon:

Absence (2010-11)

Academic Affairs Council

Admissions (2012-14)

Committee on Assignments (2009-10)

Committee for Pilot Offerings in General Education

Faculty Status (2009-10)

Honor Code (2012-13)

Institutional Animal Care and Use

Safety

Served as faculty liaison for the use of Blackboard in teaching, Fall 2000 to Spring 2002

Taught classes for the CHAMPS program

Volunteered for the Annual Theme Committee on "Technology and the Media" for the Russell Steering Committee, Fall 2003

Developed, implemented, and monitored the online placement tests for the departments of Mathematics, French, and Spanish 2002-2004

Developed the online Economics and Business Administration Department's Alumni Survey, Spring-Summer 2004

Professional Development

The Mathematical Association of America's (MAA) liaison for the Department of Mathematics, 1995-2003

Attended the Mathematics Association of America state dinner and talk at Wofford College, October 1998

Attended the Council of Independent Colleges Information Technologies Workshop, Pittsburgh, PA, March 1999

Attended the third Post-Secondary Science & Mathematics Education Reform Conference at Claflin College, November 1999

Attended the Southeastern Section of the Mathematical Association of America state meeting and dinner, March 2000

Attended the International Conference on Technology in Collegiate Mathematics, Atlanta, GA, November 2000

Co-presenter for the Russell Summer Technology Workshop on Blackboard, May 2001

Reviewed the book Calculus, 2nd ed, by Smith & Minton, October 2001

Learned the computer language C++ during my Spring 2002 sabbatical

Attended a two-day Workshop at Wofford College on "Modeling and Computational Science in Liberal Arts Learning", February 2003

Reviewed the book Contemporary College Algebra and Trigonometry: A Graphing Approach by Hungerford, November 2003

I served as an outside assessor for the Department of Mathematics at Catawba College, November 2003

Attended the Mathematics Association of America state dinner and talk at Furman University, March 2004

Refereed the article "Dyadic Representation of the Rudin-Shapiro Coefficients with Applications" for the Journal of Applied Mathematics and Computing, March 2004

Reviewed several chapters of the book Numerical Analysis, by Tim Sauer, November 2004

Refereed the article "Roots of Unity and the Polynomials with Coefficients in T " for the Journal of Applied Mathematics and Computing, March 2005

Attended the MAA Southeastern Section meeting in March 2005 at Meredith College.

Attended the joint meeting of the MAA Southeastern Section and the Society for Industrial and Applied Mathematics (SIAM) meeting in March 2006 at Auburn University. I presented "Derivations of a Giant" (A talk on the techniques that Newton's professor, Isaac Barrow, used to find the slope of curves.)

Refereed the article "Autocorrelation for the Class of Polynomials with Coefficients on T " for the Iranian Journal of Science and Technology, June 2006

Presented "An Anatomy of a Fluid Flow With a Very Low Reynolds Number In a Semi-infinite Circular Tube" at MAA Southeastern Section meeting in March 2009.

Refereed the article "A Square Representation Technique For Locating Frequencies That Have Maximum Autocorrelations" for the Iranian Journal of Science and Technology, March 2011

One of the founding members of Presbyterian College's Pi Mu Epsilon Mathematics Society

Presented "Properties of the Bessel function and an application to numerically solve a fluid flow problem" at the 31st Annual Southeastern-Atlantic Regional Conference on Differential Equations, September 2011

Attended the MAA Southeastern Section meeting, March 2013

Review three chapters of COMAP's For All Practical Purposes, May 2014

Presented "Successfully Flipping a Mathematics Class" at the 2014 Hawaii Education and STEM Conference. This article was published with the proceedings of the Hawaii Education and STEM Conference.