

John Wesley Emert
Dean of Honors College and Professor of Mathematical Sciences
Ball State University
Muncie, Indiana 47306

Education

Ph.D. in Mathematics, The University of Tennessee, August 1989
M.S. in Mathematics, The University of Tennessee, December 1986
B.A. in Mathematics and Music, The University of Tennessee, June 1982

Employment History

Dean of Honors College, Ball State University, 2017-present
Associate Dean of Honors College, Ball State University, 2008-17 (Interim Dean, 2016-17)
Director, Ball State University Worcester Center (adjunct at University of Worcester), 2011
Chair of Mathematical Sciences, Ball State University, 2005-08
Professor of Mathematical Sciences, Ball State University, 1999-present
Associate Professor of Mathematical Sciences, Ball State University, 1994-99
Assistant Professor of Mathematical Sciences, Ball State University, 1989-94
Visiting Professor, Indiana Academy of Science, Mathematics, and Humanities, 1991-92

Professional Distinction

- Recipient, 2011 C. Warren Vander Hill Award for distinguished teaching in Honors Education
- Recipient, 2008 Access Award, Ball State University Disabled Student Development
- Initiate, Distinguished Member (Friend of the Arts), Sigma Alpha Iota, 2014
- Completed three courses (Principles and Techniques of Fundraising, Developing Major Gifts, Planned Giving) The Fund Raising School, Indiana University Lilly Family School of Philanthropy, March 2013, Aug-Sept 2017
- Completed the National Collegiate Honors Council (NCHC) Faculty Development Institute, Long Island University, October 2001; NCHC Program Reviewer Institute, Roosevelt University, July 2017
- Recipient, 1985 Dorthea and Edger D. Eaves Outstanding Teaching Award, The University of Tennessee

Current National Professional Service

- Life professional member, National Collegiate Honors Council, and appointed member of Finance Committee, 2013-present; Publications Board 2012-2016; 2018 Conference Planning Committee 2016-present; Advocacy Committee, 2017-present
- Professional member, Mathematical Association of America, and publication reviewer, 1997-present
- Professional member, American Guild of Organists, and Dean of the local Muncie Chapter, 2013-17
- Life professional member, Phi Kappa Phi, appointed to Fellowships Committee, 2012-16, chair 2014-16; appointed to Budget and Program Review Committee, 2016-18
- Disciplinary Editor, American Journal of Undergraduate Research, 2003-present
- Faculty Consultant Reader, The College Board, 1996-2007; Faculty Consultant Reviewer, The College Board Educational Policy Improvement Center, 2007-present
- Typical attendee and participant at the annual meetings of: National Collegiate Honors Council, National Council for Science and the Environment, Midwest Biopharmaceutical Statistics Workshop, Phi Kappa Phi, Honors Education at Research Universities

Current University Professional Service

- Chair, Whitinger Scholars Committee, 2016-present; Emens Scholars Committee, 2017-present
- Member, University Council on the Environment, 2011-present
- Member, University Diversity Committee, 2009-16; and University Assessment Committee, 2010-present
- Member, Rinker-Yuhas Scholarships review committee, 2012-present
- Judge at annual CCIM Student Kaleidoscope Symposium and SPA Student Research Symposium, 2011-present

Further Service to the National Community, Relative to this Application

Member of Executive Board, Mideast Honors Association, 2011-12

Judge, Intel International Science and Engineering Fair, Louisville, Kentucky, 1997; Indianapolis, Indiana, 2006.

Member, Project Kaleidoscope Faculty for the 21st Century Network, July 1996-present. Member of Planning Committee, 1998 National Assembly, Chicago, Illinois; Session Facilitator, 1999 Tenth Anniversary Meeting, College Park, Maryland; Session Facilitator, 2000 National Assembly, Tucson, Arizona; Member of Planning Committee, 2003 Assemblies, Oberlin College, Oberlin, Ohio.

Invited Participant, American Mathematical Society Committee on Education Roundtable, Washington, D.C., October 27-29, 2005 and October 19-21, 2006.

Member, Focus Group of the Committee on the Undergraduate Program in Mathematics, Mathematical Association of America. Washington, D.C., January 21, 2000; New Orleans, Louisiana, January 11, 2001; Baltimore, Maryland, January 16, 2003.

Reviewer, National Endowment for the Humanities and National Science Foundation, *Science and Humanities: Integrating Undergraduate Education*, Washington, D.C. March 20-21, 1995.

Reviewer, National Science Foundation, *Undergraduate Course and Curriculum Proposals in Engineering, Mathematics, and the Sciences*, Washington, D.C. February 11-14, 1991.

Further Service to the State and Regional Communities, Relative to this Application

External evaluator for University of Evansville, in conjunction with the Project Kaleidoscope Leadership Initiative Program. 2005.

External evaluator for Department of Mathematics and Statistics, Minnesota State University, Mankato. 2000.

Chair, Indiana Council of Teachers of Mathematics (ICTM) High School Mathematics Contest and member of the ICTM Board, 1995-99.

Judge, Hoosier Science and Engineering Fair, Indianapolis, 1988-2003

Teaching Experience, Relative to this Application

In the past twenty-eight years I have taught a wide variety of classes, including the global studies and natural sciences core courses and numerous interdisciplinary colloquia for the Honors College.

I have developed and led these Honors College colloquia: "From Alice to Harry: The Intertwining of Science and Wit," "The Cultivation of Codebreaking and Computing: Bletchley Park and Beyond," and "A Culture of Cleverness" in Great Britain; "Ireland: The Cultural and Historical Landscape" (joint with Jason Powell) and "A Scientist's Introduction to Ireland" in the Republic of Ireland and Northern Ireland; "Science on Stage," "Good and Evil: A Scientist's Perspective," "The Mathematics of Games," "Gödel, Escher, Bach: Variations on a Common Theme," "The Mathematics of Fractals," and "Mathematical Integrity."

I supervised these Honors College Theses:

- January May, *A Conversing Telescoping Product*, 1992
- Lani Meyer, *Computers and Calculators in Mathematics Education*, 1992
- Jason Brotherton, *On Toward Mozart*, 1993
- Angelica Politano, *Chaos Theory and Probability*, 1994
- William Habegger, *Geometric Discovery through Interactive Software*, 1994
- Michelle Wallace, *A Study of Regular Polytopes: Hypercubes, Simplexes, and Crosspolytopes*, 1994
- Ben Kelly, *The Topology of Graph Fractals*, 1995
- Brandy Meredith, *Issues in Computer Security*, 1996
- Carol Pearson, *Mathematics in Germany in the 1890s*, 1997

- Gregory Anderson, *Conway's Game of Life in Two and Three Dimensions*, 1998
- Michelle Necek, *Rithmomachia: The Lost Mathematical Treasure of the Dark Ages*, 1998
- Jeff Smith, *Guitars are Non-Linear!* 1999
- Jonathon Wright, *The Mathematics Behind Euchre*, 2001
- Steven Weigel, *All-Scalar Set Hierarchy : the Future of Music Theory*, 2016

Most of these students have presented their work at professional meetings.

I was faculty mentor for three Undergraduate Honors Fellowship students: William Habegger, *Geometry through Technology*, 1993; Michelle Wallace, *Constructing Polytope Models*, 1993; Karen Koelm, *Convex Uniform Polyhedra*, 1997

I was the University representative of nine Doctoral Committees during the period 2002-14: Stacy Mulder (English), Theodore Nichelson (Music), Steve Hendricks (Music), Michael Davis (Music), Paul Hanks (Music), Patrick Costello (English), Tsui-Ping Peng (Music), Mubarak Aldosari (Special Education), and Christoph Thompson (Music)

I was a member of seven Masters Thesis Committees during the period 1993-2004: George Brutchen (Technology), Munni Begum (Statistics), Samia Lopa (Statistics), Abdus Wahed (Statistics), Sanjoy Dey (Mathematics), William Garner (Mathematics), Mutahar Hickey (Computer Science). I directed two additional Masters Theses: Anna Cox, *A Categorization of Piecewise-Linear Surfaces*, 1994; and Carol Partenheimer, *Fractal Dimensions*, 1994.

Creative Teaching Activities, Relative to this Application

Developer (with C. Bove) of a National Collegiate Honors Council (NCHC) semester on site in London, England: "London Under Cover: Discovering London." A program of study was proposed to the NCHC in Fall 2003, and approved for the Summer 2004 term. Sixteen students from across the United States participated, led by four Ball State University faculty. I developed and taught a course, "The Cultivation of Codebreaking and Computing: Bletchley Park and Beyond." C. Bove and I co-developed and co-taught a second course: "City as TextTM: The Many Perspectives of London."

Developer and instructor of an introductory course in cryptography for the 1998 Early Start Program, and a course in cultural geometry for the 2005 early start program. The cryptography course was piloted as a 1998 Burris May Term course.

Developer and instructor of an introductory course in modern mathematics within the Honors College Summer Program for High School Juniors, 1991-94. This course was designed to provide a survey of the diverse areas of contemporary mathematics accessible without calculus. Implicitly, this course aids each student to identify her or his own interests in mathematics as a career. I taught this course five times (including an Indiana Academy May Term) to a total of 47 students.

Developer and instructor of several Honors College colloquia having field experiences at various sites within Great Britain, Northern Ireland, and the Republic of Ireland, 2001-present.

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