## DR. JOHN CHRISTOPHER NARDO

Oglethorpe University 4484 Peachtree Road, N.E. Atlanta, GA 30319

(404) 364-8327
jnardo@oglethorpe.edu
https://oglethorpe.edu/faculty/johncnardo/
http://sites.oglethorpe.edu/jnardo/

## **EDUCATION**

Doctor of Philosophy in Mathematics, Emory University, May 1998

Master of Science in Mathematics, Emory University, May 1995

Bachelor of Arts in Mathematics and English Literature with a concentration in Italian studies, Wake Forest University, May 1992

## PROFESSORIAL EXPERIENCE

2012 – Present	2004 – 2012
Full Professor of Mathematics (with Tenure)	Associate Professor of Mathematics (with Tenure)
Oglethorpe University	Oglethorpe University
Atlanta, GA 30319	Atlanta, GA 30319
2000 – 2004	1997 – 2000
Assistant Professor of Mathematics	Assistant Professor of Mathematics
Oglethorpe University	University of North Georgia (formerly NGCSU)
Atlanta, GA 30319	Dahlonega, GA 30597

## UNIVERSITY-WIDE ADMINISTRATIVE EXPERIENCE: OGLETHORPE UNIVERSITY

2017 – 2021	2020 – 2021	
Associate Provost	Interim Dean	
(simultaneous service as SACSCOC Liaison	Hammack School of Business	
and Director of Academic Assessment)		
2013 – 2014		
Acting Co-Provost		
(all faculty and curricular matters)		

## DIVISIONAL ADMINISTRATIVE EXPERIENCE: OGLETHORPE UNIVERSITY

2022-2023	2004 – 2007, Fall 2009, 2010 – 2013, & 2016 – 2017
8	Division Chair Mathematics & Computer Science

## **AWARDS AND HONORS**

2023

Manning M. Pattillo, Jr., Professor of the Liberal Arts

Oglethorpe University (One university-wide endowed professorship for a two-year term)

Vulcan Materials Company's Teaching Excellence Award for Meritorious Teaching and Leadership Oglethorpe University (One Award University-Wide)

2022

Outstanding Faculty Member Omicron Delta Kappa Leadership Honor Society Oglethorpe University (One Award University-Wide)

2015-2021

Head University Marshal Oglethorpe University

2014 & 2013

Donald C. Agnew Award for Distinguished Service to the Oglethorpe Community Student Government Association Oglethorpe University (One Award University-Wide)

2013

Mentor Award: Omicron Delta Kappa Leadership Honor Society Oglethorpe University

2007

Faculty Appreciation Award: Omicron Delta Kappa Leadership Honor Society Oglethorpe University (One Award University-Wide)

2003

Lu Thomasson Garrett Award for Meritorious Teaching Oglethorpe University (One Award University-Wide)

2003Spring 2010 & 2001-2006"Apple Polishing Tea" AwardAssociate Faculty MarshalChi Omega SororityOglethorpe University

Oglethorpe University (One Award University-Wide)

1998-1999 1996-1997

Faculty Marshal Dean's Teaching Fellow University of North Georgia Emory University

1996 Spring 1996

Marshall Hall, Jr., Prize Visiting Scholar and Research Fellow

for Distinguished Undergraduate Instruction Department of Mathematics
Emory University University University of California, Berkeley

## **GRANTS**

2022-2028

Title: "Inclusive Excellence 3"

Source: Howard Hughes Medical Institute

OU Principal Investigator and Head Grant Writer (pre-COVID application phase)

OU Steering Committee Member (post-COVID implementation phase)

2014-2017

Title: "Engaging Mathematics: Building a National Community of Practice"

Source: National Science Foundation via SENCER

(Science Education for New Civic Engagements and Responsibilities)

2008-2009

Focus: Creating a multi-course water quality research project

Source: SENCER (Science Education for New Civic Engagements and Responsibilities)

2007

Focus: Creating an interdisciplinary course to study Atlanta traffic

Source: SENCER (Science Education for New Civic Engagements and Responsibilities)

2005

Title: "Preparing Mathematicians to Educate Teachers"

Focus: Classical and Modern Geometries Course (Undergraduate Mathematics Major)

Source: Mathematical Association of America

2004

Title: "Preparing Mathematicians to Educate Teachers"

Focus: Mathematical Inquiry Course (Master of Arts in Teaching Program)

Source: Mathematical Association of America

1999

Title: Excellence in Teaching Grant Source: University of North Georgia

## CURRENT SCHOLARSHIP OF TEACHING AND LEARNING INTERSTS

My career has been completely focused on reshaping mathematics and science education to improve persistence and success in our disciplines – especially for students from traditionally underrepresented groups. Removing arbitrary barriers and encouraging success in STEM are vital foci of my work in Diversity, Equity, and Inclusion. I bring the tools of quantitative and qualitative research to bear on teaching and learning. Most recently, I led D/E/I efforts in the STEM curriculum as part of our HHMI grant work. I have authored a free college text on voting theory to show the importance of mathematics in social justice and in our students' lives. I have published and presented on the efficacy of mathematics homework (in both written and online forms) for both major courses and service courses.

## **CURRENT MATHEMATICAL RESEARCH INTERESTS**

My specialty is random knot theory, a hybrid subfield of topology and probability. I am also interested in other research questions involving topology, probability, stochastic processes, statistics, and mathematical economics. Over the last twenty-three years at a teaching institution, I have shifted my research agenda towards mathematics education with extensive presentations and grants in mathematical pedagogy and technology. During sabbaticals, I retrained as an actuary and passed two national examinations to bring actuarial mathematics into my teaching and research interests and into Oglethorpe's curriculum. On my most recent sabbatical, I codified these decades of actuarial preparation at OU into a new academic program: the first "track" in the Mathematics major. For all intents and purposes, these eight new courses and myriad existing courses make a new "major" at OU in Actuarial Science.

## ACADEMIC PRESENTATIONS AND PUBLICATIONS

Publication, "Metacognition in the Mathematics Classroom," Notices of the American Mathematical Society, January 2024, a peer-reviewed article based on the work of the four panelists for the entry below.

Invited Panelist, "Metacognition in Mathematics," Joint Mathematics Meetings, January 2023.

Publication, "Great Ideas of Modern Mathematics: Voting Theory," (free collegiate-level electronic textbook chapter, solutions manual, and student answer manual), available on the SENCER Engaging Mathematics grant website <a href="http://www.engagingmathematics.net">http://www.engagingmathematics.net</a>, October 2016.

Publication, "A Quantitative and Qualitative Comparison of Homework Structures in a Multivariable Calculus Class," Book Chapter in *Scholarship of Teaching and Learning in Mathematics* by Dr. Jackie Dewar, Mathematics Association of America's Notes Series. November 2013

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2013, "Comparing Online and Traditional Homework in a College Algebra Class: A Second Generation SoTL Study"

Speaker, Southeastern Teaching of Psychology Conference, February 2012, "Interdisciplinary SoTL: A Quantitative and Qualitative Comparison of Homework Structures in a Multivariable Calculus Class"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2011, "A quantitative and qualitative comparison of homework structures in a multivariable calculus class"

Poster Presenter, SENCER Conference, August 2010, "Investigation of Atlanta Water Quality: A Tale of Two Pedagogies"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2010, "Water, Water, Everywhere – Even in Statistics"

Poster Presenter, SENCER Conference, August 2009, "Water Quality Tracking at Three Sampling Locations in Metro Atlanta"

Poster Presenter, SENCER Conference, August 2008, "Stuck in Traffic: Designing a New Science and Mathematics Class to Address Capacious, Real-World Problems"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2007, "Placement Made Personal"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2007, "Are you a Mathematical Maoist? Writing Exercises to Explore the Mathematical Self"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2005, "Promoting Conceptual Understanding of Fundamental Mathematics Among Preservice Elementary Teachers"

Speaker, Joint Meetings of the American Mathematical Society and the Mathematical Association of America, January 2004, "Encouraging Artistic Expression via Mathematical Exploration in the Core Curriculum"

Publication, "Energizing Multivariable Calculus via Maple," *Proceedings of the 15th Annual International Conference on Technology in Collegiate Mathematics*, January 2004

Speaker, International Conference on Technology in Collegiate Mathematics (ICTCM), November 2003, "Infusing Applied Calculus with Technology and Projects"

Publication, "Introducing Calculus Students to Probability: Giving Numerical Integration and Improper Integrals a Context," *Proceedings of the 14th Annual International Conference on Technology in Collegiate Mathematics*, January 2003

Speaker, "Energizing Multivariable Calculus via Maple," International Conference on Technology in Collegiate Mathematics, November 2002

Publication, "Taming Randomness: Using Graphing Calculators to Simulate Probability Experiments," *Proceedings of the 13th Annual International Conference on Technology in Collegiate Mathematics*, January 2002

Speaker, "Introducing Calculus Students to Probability: Giving Numerical Integration and Improper Integrals a Context," International Conference on Technology in Collegiate Mathematics, November 2001

Publication, "Global Knotting in Equilateral Random Polygons," *Journal of Knot Theory and Its Ramifications*, June 2001

Publication, "Exploring Linear Algebra using MATLAB," *Proceedings of the 12th Annual International Conference on Technology in Collegiate Mathematics*, January 2001

Speaker, "Taming Randomness: Using Spreadsheets/Graphing Calculators to Simulate Probability Experiments," International Conference on Technology in Collegiate Mathematics, November 2000

Speaker/Workshop Instructor, "When Will I Use Trigonometry in the Real World?," Georgia Mathematics Conference, October 2000

Speaker, "Statistics By Discovery and Experimentation," Teachers Teaching with Technology Conference, March 2000

Short Course Instructor, "Exploring Linear Algebra Using MATLAB," International Conference on Technology in Collegiate Mathematics, November 1999

Speaker, "Energizing Linear Algebra via MATLAB," Mathematical Association of America Southeastern Sectional Meeting, March 1999

Speaker, "Active Learning of Statistics Using a TI-83 Graphing Calculator," Georgia Perimeter College Mathematics Conference, March 1999

Workshop Instructor, "Technology-Based Applications," University of North Georgia, October 1998

Workshop Instructor, "Energizing Introductory Statistics with the TI-83 Graphing Calculator," DeKalb College Mathematics Conference, April 1998

Workshop Instructor for Lumpkin County Middle School Enrichment Program, "Experiments in Probability," University of North Georgia, Spring 1998, Winter 1998, Fall 1997

Speaker, "Innovations and Excellence in Teaching," Emory University, directed by Eleanor Main, Associate Dean of the Graduate School, Summer 1997

Instructor, "Fostering an Environment for Learning," Emory University, directed by Jody Usher, Associate Dean of the Graduate School, Summer 1997, Summer 1996

Participant, International Conference in Knot Theory, Warsaw, Poland, Summer 1995

## **COURSES TAUGHT**

Actuarial Capstone (Advanced Short-Term Actuarial Math)	Spring 2024	Oglethorpe University
Applied Algebra	Fall 2011	Oglethorpe University
Applied Calculus (Business/Economics)	Summer 2006, Spring 2005, Fall 2003,	Oglethorpe University Emory University
Biostatistics	Fall 2022	Oglethorpe University
Calculus I	Fall 2016, Fall 2013, Fall 2009, Fall 2004, Summer 2001, Fall 2000, Fall 1994, Spring 1994, Fall 1993	Oglethorpe University Emory University
Calculus II	g : 2001 F 11 1007 (II	Oglethorpe University Emory University
Calculus III	Spring 2023, Fall 2010, Fall 2009, Fall 2008, Fall 2006, Fall 2005, Fall 2003, Fall 2002, Fall 2001, Spring 1997, Fall 1996	Oglethorpe University Emory University

College Algebra	Fall 2011, Summer 2009, Summer 2007, Fall 2006, Summer 2005, Summer 2002, Spring 2002, Summer 2001, Summer 2000, Spring 1998, Winter 1998, Fall 1997	Oglethorpe University University of North Georgia Reinhardt College
Complex Analysis	Spring 2009, Spring 2003	Oglethorpe University
Computers & Information	Summer 2000, Fall 1999, Summer 1999,	University of North
Systems	Spring 1999, Fall 1998	Georgia
Contemporary Mathematics	Summer 1995	Gwinnett Technical Institute
Differential Equations	Spring 2014, Spring 2012, Spring 2004	Oglethorpe University
Financial Mathematics (Calculus-Based Actuarial Science Course)	Spring 2023	Oglethorpe University
Fresh Focus/First-Year Seminar	Fall 2009, Fall 2008, Fall 2006	Oglethorpe University
Fundamental Actuarial Mathematics I (Short-Term)	Fall 2023	Oglethorpe University
Fundamental Actuarial Mathematics II (Long-Term)	Spring 2023	Oglethorpe University
Great Ideas in Modern Mathematics	Spring 2016, Fall 2015, Spring 2013, Spring 2012, Summer 2011, Spring 2011, Summer 2010, Fall 2009, Summer 2006, Spring 2006, Fall 2005, Spring 2005, Fall 2004, Summer 2004, Spring 2004, Fall 2003, Fall 2002, Fall 2001, Spring 2001	Oglethorpe University
Honors Seminar	Fall 2013, Fall 2010	Oglethorpe University
Interdisciplinary Math/Science Class on Atlanta Traffic	Spring 2009	Oglethorpe University
Linear Algebra	Fall 2022, Spring 2013, Spring 2009, Spring 2007, Spring 2003, Spring 1999	Oglethorpe University University of North Georgia
Linear Algebra Seminar on Abstract Vector Spaces	Fall 2022	Oglethorpe University
Mathematical Biology	Spring 2020, Spring 2016	Oglethorpe University
Mathematical Inquiry (Graduate Education Course)	Spring 2010	Oglethorpe University
Modeling via Excel & R	Fall 2023	Oglethorpe University
Numerical Analysis	Spring 2000	University of North Georgia
Precalculus	Summer 2013, Spring 2007, Fall 2001, Spring 2001, Fall 2000, Summer 1999, Fall 1999, Fall 1998	Oglethorpe University University of North Georgia

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Probability (Calculus-Based Actuarial Science & Mathematics Major Course)	Spring 2023, Fall 2016, Fall 2010, Spring 2004, Spring 2002, Fall 2000, Spring 1999, Winter 1998	University of North Georgia
Probability II/Actuarial Seminar	Spring 2011	Oglethorpe University
Proof & Logic	Fall 2012, Fall 2008, Fall 2004	Oglethorpe University
Real Analysis	Spring 2010, Spring 2006	Oglethorpe University
Senior Seminar (Mathematics)	Spring 2020 (Mathematical Biology)	Oglethorpe University
Spreadsheets & Databases	Fall 2012, Summer 2011, Summer 2010, Spring 2010, Spring 2009, Summer 2007, Summer 2000	Oglethorpe University University of North Georgia
Statistical Learning (Machine Learning)	Spring 2024	Oglethorpe University
Statistics (Business)	Summer 1999	Reinhardt College
Statistics (Introductory)	Fall 2023, Spring 2023, Fall 2022, Summer 2013, Fall 2012, Spring 2012, Summer 2011, Spring 2011, Fall 2010, Summer 2010, Summer 2009, Spring 2009, Fall 2008, Summer 2007, Spring 2007, Fall 2006, Spring 2006, Fall 2005, Summer 2005, Summer 2004, Fall 2003, Summer 2003, Spring 2003, Summer 2002, Spring 2002, Summer 2001, Spring 2001, Fall 1998, Spring 1998	Oglethorpe University University of North Georgia
Statistics (Mathematical/Calculus- Based)	Fall 2023, Spring 2017, Fall 1999, Fall 1997	Oglethorpe University University of North Georgia

# PROFESSIONAL SERVICE – OGLETHORPE UNIVERSITY

Advisor to:		
	Alpha Phi Omega, National Service Fraternity	2000-2017
	Alpha Chi, National Honor Society	2002-2006
	Khayos Urban Dance Steppers	2006-2012
	Omicron Delta Kappa, National Leadership Honor Society	2012-Present
	Outlet, Students Against Homophobia	2008-2017
Chair of:		
	Academic Program Committee	2008-2009
	Division of Mathematics and Computer Science	2016-2017, 2010-2013, Fall 2009, 2004-2007
	Faculty Council	2016-2017
	Mathematics Search Committee	2008-2009

	Mathematics/Computer Science Search Committee	2009-2010, 2006-2007
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	Mathematics Education Search Committee	2001-2002
	Oglethorpe Fund	2003-2004
2.5.1.0	Tenure & Promotion Committee	2016-2017 & 2015-2016
Member of:		
	Academic Program Committee	2022-2024, 2008-2009, 2000-2004
	Assessment Committee (University Wide)	2004-2007
	Budget Advisory Committee	2013-2014, 2009-2010
	Calendar Committee	Fall 2011
	Commencement Committee	2015-2021, 2001-2006
	Core Curriculum Committee	2011-2012, 2009-2010, Spring 2003
	Datatel Implementation Group	2003-2005
	Diversity/Equity/Inclusion in STEM (HHMI Grant) Curricular Revamp & Innovation Committee	2022-2024
	Diversity/Equity/Inclusion in STEM (HHMI Grant) Steering Committee	2022-2024
	Faculty Council	2016-2017, 2010-2013, Fall 2009, 2004-2007
	Faculty Council Subcommittee on the Faculty Handbook	2011-2013
	Faculty Council Subcommittee on Workload	2011-2012
	Faculty Observer to the Board of Trustees: Academic Affairs	2012-2013
	Faculty Observer to the Board of Trustees: Campus Life	2009-2011
	Faculty Observer to the Board of Trustees: Full Board	2010-2011
	Inauguration Committee for President Larry Schall	Spring 2006
	SACS Compliance Team (Accreditation Committee)	2004-2007
	Search Committee: Director of Institutional Effectiveness	2021-2022
	Search Committee: Mathematics Assistant Professor	2008-2009
	Search Committee: Math/Computer Science Assistant Professor	
	Search Committee: Mathematics Education Assistant Professor	2000-2001
	Search Committee: Provost	2010-2011
	Search Committee: Physics Assistant Professor	2022-2023
	Strategic Planning Implementation & Oversight Committee	2001-2002
	Strategic Planning Team on the Educational Experience	2008-2009
	Technology Action Group	2001-2011
	Teacher Education Council	2000-2006
	Tenure & Promotion Committee	2016-2017, 2015-2016, 2010-2011
Parliamentari	an for:	2010 2011
<u> arnamentari</u>	Oglethorpe Faculty	2023-2024, 2015-2017, 2010-2013, 2006-2007
		2010 2013, 2000-200

# PROFESSIONAL SERVICE – UNIVERSITY OF NORTH GEORGIA

Advisor to:		
	Student Activities Board	1998-2000
Co-Chair/Chair of:		
	Bylaws Committee	1999-2000
	Mandala Diversity Committee	1999-2000
	Technology Committee (Departmental)	1998-2000
Creator/ Coordinator of:		
	Mathematics & Computer Science Student Lecture Series	1998-2000
Secretary of:		
	Bylaws Committee	1998-1999
	Faculty Affairs Committee	1999-2000
Member of:		
	Academic Advisement Committee	1998-2000
	Ad Hoc Committee on Graduate Studies	1999-2000
	Committee-on-Committees	1999-2000
	Faculty Affairs Committee	1999-2000
	Mandala Diversity Committee	1998-2000
	Search Committee for Assistant Professor of American Literature	1999
	Search Committee for Assistant Professor of Speech	1999
Faculty Tutor for:		
	Minority Achievement Program	1998-2000
MS Office Instructor for:		
	Continuing Education	1998-1999
	ICAPP	1999

## **MISCELLANEOUS**

Actuarial Examinations Passed: (Society of Actuaries & Casualty Actuarial Society Joint-Administered National Examinations)	P/1: Probability FM/2: Financial Mathematics
Computer Software Proficiency:	R, R Studio, Mathematica, Maple, MATLAB, Octave, C, C++, Java, Java Server Pages, Microsoft Office Suite
Foreign Language Knowledge:	French, Italian
Professional Organization Affiliation:	American Mathematical Society

# REFERENCES

References will be provided upon request.