

Michael K. (Scott) Gordon, Ph.D.

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Professional Preparation

INSTITUTION	DISCIPLINE	DEGREE	YEAR
Duke University	Mathematics	B.S.	1987
Duke University	Mathematics	M.A.	1989
Duke University	Mathematics	Ph.D.	1993

Appointments

PERIOD	POSITION	INSTITUTION
2025-Present	Interim Director, CAM	University of West Georgia
2008–Present	Professor	University of West Georgia
2015–2016	Interim Dean, COSM	University of West Georgia
2011–15, 2016-17	Associate Dean, COSM	University of West Georgia
2001–2008	Associate Professor	University of West Georgia
1996–2001	Assistant Professor	University of West Georgia
1993–1996	Visiting Assistant Professor	North Carolina State University
1988–1993	Graduate Instructor	Duke University

University Committees and Service

- Faculty Senate F19-S22
- Intercollegiate Athletics and University Advancement Committee
F19-S22 (Chair F19, S20)
- Academic Policies Committee F17, S18
- Graduate Programs Committee F20-present

College Committees

- Dean’s Advisory Committee F16-S17
- Chair, Curriculum Committee F16-S17
- Scholarship Committee F16-S17
- Ad Hoc Committee F16-S17
- CACSI Executive Committee F22, S23

Department and Program Committees and Service

- Promotion and Tenure Committee F17-present

- Strategic Planning Committee F17-S19
- Faculty Evaluation and Policies Committee F17-S19
- Organizer, UWG Math Day S19, S20, S24
- Director of Mathematics Graduate Program S07-S10, F17-F21
- Math Tutoring Center Coordinator F20, S21

Grants

- 2019-2021 – PI on STEM IV Initiative Grant from University System of Georgia Board of Regents \$150,000
- 2016-2019 – PI on STEM III Initiative Grant from University System of Georgia Board of Regents \$390,000
- 2024-Present – Team member on Affordable Learning Georgia Grant

Teaching Related Activities

- Recruited and advised team competing in the Mathematical Contest in Modeling S97, S98, S99, S07, S08, S09, S10, S11, S14, S15, S16
- Served as Host Site organizer for SCUDEM competition S18
- Supervised nine Senior projects
- Led Faculty Learning Community applying methods from “Small Teaching” by J.M. Lang to core math classes, F22, S23

Teaching Statement

My teaching interests are varied but lean towards areas related to applications. I teach many STEM majors and I believe that it is important that they see how mathematics relates to their areas of study. I am also interested in pedagogical methods for improving outcomes in core math classes.

Courses Taught

- Elementary Statistics
- College Algebra
- Precalculus
- Calculus I-III
- Ordinary Differential Equations (Graduate and Undergraduate)
- Partial Differential Equations (Graduate and Undergraduate)
- Linear Algebra (Elementary and Upper Level)
- Complex Analysis
- Real Analysis (Graduate and Undergraduate)
- Number Theory
- Calculus of Variations
- Mathematical Modeling

- Geometry (Graduate and Undergraduate)
- Topology

Professional Activities

- Referee for Sports Engineering
- Reviewer for Math Reviews
- Referee for International Journal of Mathematics and Mathematical Sciences
- USG Teaching and Learning Conference F19 poster presentation:

Research Statement

My research interests are in the areas of analysis of differential equations, modeling, and sports applications.

Publications

1. **Gordon, M.**, “Perturbed Scale-Invariant Initial Value Problems in One-Dimensional Dynamic Elastoplasticity”, *SIAM Journal of Mathematical Analysis*, **26**, no. 6, (1995) 1564–1587.
2. Shearer, M., Schaeffer, D., **Gordon, M.**, “Plane Shear Waves in a Fully Saturated Granular Material with Velocity and Stress Controlled Boundary Conditions”, *International Journal of Nonlinear Mechanics*, **32**, no. 3, (1997) 489–503.
3. **Gordon, M.**, Garaizar, F.X., “Riemann Problems for an Elastoplastic Model for Antiplane Shearing with a Nonassociative Flow Rule”, *Quarterly of Applied Mathematics*, **52**, no. 2, (1999) 527–554.
4. **Gordon, M.**, Garaizar, F.X., “Wave Speeds for an Elastoplastic Model for Two-Dimensional Deformations with a Nonassociative Flow Rule”, *Quarterly of Applied Mathematics*, **52**, no. 2, (1999) 527–554.
5. **Gordon, M.**, “A Free Boundary Problem for a Hypoplastic Model of Plane Shear Waves in a Fully Saturated Granular Material”, *SIAM Journal of Mathematical Analysis*, **34**, no. 3, (2002) 1564–1587.
6. **Gordon, S.**, “A Mathematical Model for Power Output in Rowing on an Ergometer”, *Sports Engineering*, **6**, no. 4, (2005) 221–234.
7. **Gordon, S.**, “Optimizing Distribution of Power During a Cycling Time Trial”, *Sports Engineering*, **8**, no. 2, (2005) 81–90.
8. **Gordon, M.**, “Nonuniformity of Deformation Preceding Shear-Band Formation in a Two-Dimensional Model for Granular Flow”, *Communications on Pure and Applied Analysis*, **7**, no. 6, (2008) 1361–1374.