MEGAN DIXON

Department of Mathematics
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RESEARCH INTERESTS

My research area is Mathematical Biology. I primarily use differential equation and stochastic modeling to better understand cellular regulation and the implications of disease. Current interests include developing math models to answer questions important to understanding diabetes and cancer. I enjoy using mathematical modeling in collaboration with biologists to aid in experimental design in the lab setting.

EDUCATION

University of Utah, Salt Lake City, UT *- Ph.D., Mathematics, 2015*

- Dissertation: Roles for ubiquitin and dimensional dependence in protein regulation
- Adviser: Dr. Jim Keener
- Area of study: Mathematical Biology

University of Utah, Salt Lake City, UT *- M.S., Mathematics, 2010*

- Area of study: Mathematical Biology

Westminster College, Salt Lake City, UT *- B.S., Mathematics, 2007*

- Summa Cum Laude

TEACHING EXPERIENCE

Brigham Young University, Provo, UT *- Visiting Assistant Professor, 2022-present*

Courses Taught

- Math 213 - Linear Algebra

Salt Lake Community College, Salt Lake City, UT *- Online Instructor, 2017-2018*

Courses Taught

- Math 1010 - Intermediate Algebra
- Math 1030 - Quantitative Reasoning

University of Utah, Salt Lake City, UT *- Instructor, 2011-2016*

Courses Taught

- Math 1010 - Intermediate Algebra
- Math 1100 - Business Calculus
- Math 1170 Lab - Calculus for Biologists

University of Utah, Salt Lake City, UT *- Facilitator: Math Department TA Training, 2012-2013*

University of Utah, Salt Lake City, UT *- Mentor, 2010-2013*

- Mathematical Biology REU
- Mathematical Biology Journal Club

East High School, Salt Lake City, UT *- Teacher, 2007-2008*

Courses Taught

- Algebra
- Geometry

FELLOWSHIPS AND AWARDS

Research Assistant

NSF-DMS-1122297 Mathematical modeling of the dynamics of cellular processes, University of Utah (Fall 2013-Summer 2015)

RTG Fellowship

Department of Mathematics, University of Utah (Fall 2010-Fall 2011, Fall 2012- Summer 2013)

VIGRE Fellowship

Department of Mathematics, University of Utah (Fall 2009-Spring 2010)

Outstanding Graduate Student Award

Department of Mathematics, University of Utah (2012)

Outstanding Student Award

Department of Mathematics, Westminster College (2008)

JOURNAL ARTICLES

Mageswaran, S.K, Dixon, M.G., Curtiss, M, Keener, J.P. and Babst, M: Binding to Any ESCRT Can Mediate Ubiquitin-Independent Cargo Sorting. Traffic (2014).