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Mathematical Biosciences Institute  
The Ohio State University  
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**Teaching interests:** • Mathematical modeling, mathematical biology, ordinary and partial differential equations, calculus, advanced calculus, complex analysis, scientific computing, linear algebra

**Classes taught:** • The Ohio State University

- VIGRE working group in mathematical biology, 2006

Course website: <http://www.math.ohio-state.edu/vigre/mathbio/index.shtml>

Responsibilities: *design curriculum, determine readings, introductory lecture on mathematical neuroscience, supervise several course projects, moderate discussions, assist with computational issues, introduce students to professional speaking techniques, e.g., powerpoint or L<sup>A</sup>T<sub>E</sub>X generated computer talks, assign final grades*

• The University of Utah

- Trigonometry (class of 170), 2004

- Calculus II (two semesters), 2003

- Pre-Calculus, 2001

- Calculus I, 2001

*Set syllabi, write all lecture material and examinations, proctor exams, hold regular office hours, assist with computer technology (Maple), maintain a course website, utilize online assignments (Webworks) for large sections, i.e., trigonometry*

**Classes assisted:** • University of Utah

- Math Biology II: systems physiology (graduate level), 2005

- Math Biology II: spatially extended systems (upper undergrad/graduate level), 2005

*Lecture for week intervals when instructor away, hold office hours, grade all assignments*

- Differential Equations and Linear Algebra for Engineers (nine sections), 2001-2002

*For each section, hold hour long recitations that include lecture and fielding homework questions, available for office hours, MATLAB assistance*

- Calculus I (two semesters, classes of 170), 2000/2004

*Proctor and grade examinations, hold office hours, hold hour long recitations that include lecture and fielding homework questions, assign grades, attend course*

**Project Supervision  
and Mentoring:**

- Mathematical Biosciences Institute, The Ohio State University
  - MBI Summer Program in Mathematical Modeling in Neuroscience and Physiology, 2008  
Course website: <http://mbi.osu.edu/eduprograms/2008description.html>  
Project Leader - *Development of the primary visual cortex: ocular dominance, competition for neurotrophins, and the cortical laminae*  
Responsibilities: *Actively supervised a group of graduate students and young faculty on a project designed by myself on neurodevelopment.*
  - Calculus for the Life Sciences, 2007  
Courses were taught by Drs. David Terman and Janet Best.  
Project Leader - *Viral dynamics and HIV immunology*  
Responsibilities: *Supervised a group of undergraduate students on a project designed by myself on the body's immune response to viruses, such as HIV.*
  - Mathematical Neuroscience topic leader (see above), 2006  
*Determine readings, supervise class presentations and encourage comments, supervise graduate level student research projects*
- University of Utah
  - Advised a first year neuroscience graduate student (1 semester), 2006  
Project: *quantifying the spatial distribution of cytochrome oxidase blobs in macaque monkey visual cortex*

**Teaching  
Reference**

Avner Friedman, Ph.D.  
Distinguished Professor  
Fellow of the National Academy of Arts and Sciences  
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