MATC58 Preface

What is mathematical biology?

"Application of math to biology"

Physics: fluid dynamics of blood

CS: computational biology

Biochemistry: reaction kinetics of molecules of cells

Mathematical modelling of biology systems

(1) Formulate a model of a biological system

(2) Apply mathematical techniques to understanding model behavior

(3) Interpretation of model to get biological results.

- Discrete time   vs.   continuous time

periodical cicadas   bacterial growth

difference equations   differential equations

- Time and space

ODEs and PDEs

	time - dependence	time - and space - dependence
discrete	Ordinary difference	partial difference equations

	Ordinary difference equations	Difference equations
discrete intervals	Ordinary difference equations	difference equations
Continuous intervals	Ordinary differential equations	partial differential equations

Most of our focus