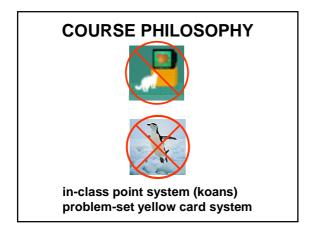


COMPUTATIONAL BIOLOGY		
BIOLOGY 4FF3 lectures: practicals: laboratories:	M W F	BSB 145 @ 0830 BSB 145 @ 0830 LSB 215 @ 1030
Jon Stone office: laboratory: telephone: email:	LSE +26	3 327 3 325 136 BCT



COURSE DESCRIPTION 1

Genes & Mendel's Laws modeling logarithms information & probability theories Bayes' Theorem

Cell Ultrastructure & Organisation trigonometry stereology

COURSE DESCRIPTION 2

Individual Growth & Scaling Principles power functions linear transformation linear regression

Population Growth logistic equation (continuous)

COURSE DESCRIPTION 3

Chaos Theory logistic equation (discrete) phase space differential equations

Fractals iteration Complex Numbers

COURSE DESCRIPTION 4

Game Theory dynamic modeling

Population Genetics Hardy-Weinberg rules

Evolutionary Biology set theory, likelihoods, Bayesian inference

COURSE DESCRIPTION 5

Bioinformatics algorithms, recursion

TBD

COURSE EVALUATION

 problem sets*
 10 @ 05% = 50%
 Fridays

 review
 01 @ 10% = 10%
 03 05

 report
 01 @ 15% = 15%
 02 13, 03 26

 examination
 01 @ 25% = 25%
 TBA

* yellow card system in effect

COMPUTATIONAL BIOLOGY

is the discipline wherein computers are used predominantly to study living systems

is multilevel and interdisciplinary

comprises many subdisciplines

