Mathematical Techniques in Evolution and Ecology
Syllabus Spring Quarter 2015

Simon Aeschbacher

May 11, 2015

Time: Friday, 10–12 am
Location: Storer Hall, Rm 2342
First lecture: 04/03/2015
Last lecture: 05/29/2015

Date	**Topic (chapter in Otto and Day)**	**Remarks**
04/03	How to construct a model (2)	
04/10	Some classic models in evolution and ecology (3)	
04/17	Functions and approximations (P1)	
04/24	Numerical and graphical techniques (4)	
05/01	Equilibria and stability analyses – one-variable models (5)	Part I
05/08	General solutions and transformations – one-variable models (6)	Part II of (5); part I of (6)
05/15	Equilibria and stability analyses – linear models with multiple variables (7)	Part II of (6); part I of (7); recommended reading: Primer 2
05/22	Equilibria and stability analyses – linear models with multiple variables (8)	Part II of (7); brief outline of chapter (8) on non-linear models
05/29	Hands-on intro to *Mathematica*: solving equations, plotting, recursions, derivatives	Download free 15-day trial from www.wolfram.com/mathematica/trial/