

Math 374 Schedule

Week	Dates	Topics Covered	Homework due Monday
1	Aug 11	Section 1.1: Introduction to the modeling process Section 1.2: Introduction to R	Install R (page 4)
	Aug 13	R Practice	
2	Aug 18	Section 2.1: Discrete-time models	Section 1.2 Exercises
2	Aug 20	Section 2.6: Logistic Growth	
3	Aug 25	Case Study: Pharmacokinetics	Section 2.1- 2.2 Exercises
3	Aug 27	Case Study: Pharmacokinetics	
4	Sep 1	Section 3.2.1: Model formulation Section 3.2.2: Solutions to ODEs Section 3.2.3: Investigating parameter space	Section 2.4 Exercises
4	Sep 3	Practice problems	
5	Sep 8	Section 3.2.4: Nonlinear fitting Section 3.3: Model selection	Section 3.2.1 Exercises
5	Sep 10	Case study: Tumor growth	
6	Sep 15	Case study: Tumor growth	Section 3.2.3 - 3.4 Exercises
6	Sep 17	Office Hour Appointments	
7	Sep 22	Section 3.7: Enzyme kinetics	Paper Due
7	Sep 24	Section 3.7: Enzyme kinetics	
8	Sep 29	Section 4.2.1: Numerical Solutions to ODEs	Section 3.7 Exercises
8	Oct 1	Case Study: Modeling 2009 Influenza Pandemic	
9	Oct 6	Section 4.2.2: Calibration	Section 4.2.1 Exercises
9	Oct 8	Case Study: Modeling 2009 Influenza Pandemic	

10	Oct 13	Section 4.2.3: Sensitivity analysis	Section 4.2.2-4.2.4 Exercises
10	Oct 15	Final Project Brainstorming Session Paper 2 Overview	
11	Oct 20	Work on Project Proposal	Project proposal due Oct 20
11	Oct 22	Office Hour Appointments	
12	Oct 27	Final Project Meeting	Paper 2 Due Oct 26
12	Oct 29	Final Project Meeting	
13	Nov 3	Final Project Meeting	Nov 3: Project Update (short presentation)
13	Nov 5	Final Project Meeting	
14	Nov 10	Final Project Meeting	Nov 10: Draft of paper Nov 12: Drafts of slides and practice presentations
14	Nov 12	Final Project Meeting	
15	Nov 17 8am - 10:30am	Final Presentations	Final presentation and paper