Schedule, Spring 2022

NRES 470/670

Please check for updates frequently!

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| Week | Dates | Topic | Readings |
| Week 1 | 1/17/2022 | NO CLASS (MLK day) |  |
|  | 1/19/2022 | LECTURE: Course overview; Intro to Systems Thinking | BCTD Chapter 1 (optional) |
|  | 1/21/2022 | LAB 1: Introduction to population modeling in Excel, InsightMaker, and R | Gotelli Chapter 1 |
| Week 2 | 1/24/2022 | LECTURE: Intro to Population Ecology; Exponential growth | Gotelli Chapter 1 |
|  | 1/26/2022 | LECTURE: Malthus and exponential growth |  |
|  | 1/28/2022 | LAB 1 (cont’d) |  |
| Week 3 | 1/31/2022 | LECTURE: Density-dependent growth | Gotelli Chapter 2 |
|  | 2/2/2022 | LECTURE: Density-dependent growth | Gotelli Chapter 2 |
|  | 2/4/2022 | LAB 2: Density-dependent populations in InsightMaker; maximum sustainable yield (MSY) and more (lab 1 due) |  |
| Week 4 | 2/7/2022 | LECTURE: Passenger pigeon/Allee Effect |  |
|  | 2/9/2022 | LECTURE: Age-structured populations (instructor away, no class meeting) | Gotelli Chapter 3 |
|  | 2/11/2022 | LAB 3: Age-structured populations in Excel and InsightMaker (lab 2 due) |  |
| Week 5 | 2/14/2022 | LECTURE: Matrix population models | [Heppell 1998](heppell1.pdf) |
|  | 2/16/2022 | LECTURE: Matrix population models (get in project groups) | Gotelli Chapter 3 |
|  | 2/18/2022 | LAB 4: Matrix population models in R and InsightMaker (lab 3 due) |  |
| Week 6 | 2/21/2022 | NO CLASS: President’s Day |  |
|  | 2/23/2022 | LECTURE: PVA, final projects |  |
|  | 2/25/2022 | Work in final project groups: PVA proposals |  |
| Week 7 | 2/28/2022 | LECTURE: Stochasticity and uncertainty | [Regan 2002](Regan_2002.pdf) |
|  | 3/2/2022 | LECTURE: Stochasticity and uncertainty |  |
|  | 3/4/2022 | LAB 5: Stochasticity and uncertainty (lab 4 due) (group assignment: PVA proposals due) |  |
| Week 8 | 3/7/2022 | Review for Midterm #1 |  |
|  | 3/9/2022 | MIDTERM #1 |  |
|  | 3/11/2022 | PVA projects: group meetings (or make alternate arrangements for a group meeting time) |  |
| Week 9 | 3/14/2022 | NO CLASS: spring break |  |
|  | 3/16/2022 | NO CLASS: spring break |  |
|  | 3/18/2022 | NO CLASS: spring break |  |
| Week 10 | 3/21/2022 | LECTURE: Small population paradigm | [Caughley 1994](caughley1.pdf) |
|  | 3/23/2022 | LECTURE: Declining population paradigm | [Caughley 1994](caughley1.pdf) |
|  | 3/25/2022 | Work on final projects (PVA models due next week) (lab 5 due) |  |
| Week 11 | 3/28/2022 | LECTURE: Population Viability Analysis | [Beissinger and Westphal 1998](beissinger1.pdf) |
|  | 3/30/2022 | LECTURE: Metapopulations | Gotelli Chapter 4 |
|  | 4/1/2022 | LAB 6: Metapopulation modeling in InsightMaker (group assignment: PVA models due) |  |
| Week 12 | 4/4/2022 | LECTURE: Source-sink dynamics | [Griffin et al](griffin1.pdf) |
|  | 4/6/2022 | LECTURE: Parameter estimation | [Amstrup et al Chapter 1](amstrup1.pdf) |
|  | 4/8/2022 | LAB 7 (optional): Parameter estimation: mark-recapture data (lab 6 due) |  |
| Week 13 | 4/11/2022 | Review for Midterm #2 (group assignment: peer review papers due) |  |
|  | 4/13/2022 | MIDTERM #2 |  |
|  | 4/15/2022 | LAB: Final Project Peer Review (submit peer review) |  |
| Week 14 | 4/18/2022 | LECTURE: Species interactions: competition | Gotelli Chapter 5 |
|  | 4/20/2022 | LECTURE: Species interactions: competition |  |
|  | 4/22/2022 | LAB: STUDENT PRESENTATIONS (final project: complete drafts due) |  |
| Week 15 | 4/25/2022 | LECTURE: Species interactions: predator-prey | Gotelli Chapter 6 |
|  | 4/27/2022 | TBD |  |
|  | 4/29/2022 | LAB: STUDENT PRESENTATIONS |  |
| Week 16 | 5/2/2022 | LECTURE: Final Class Review |  |
|  | 5/4/2022 | NO CLASS: Prep Day |  |
|  | 5/6/2022 | FINAL EXAM (9:50 to 11:50am) |  |
| Week 17 | 5/11/2022 | FINAL PAPERS DUE (last day of finals) |  |