Schedule, Spring 2023

NRES 470/670

Please check for updates frequently!

| Week | Dates | Topic | Readings | Due |
| --- | --- | --- | --- | --- |
| Week 1 | 1/23/2023 | LECTURE: [Course overview](INTRO.html); [Intro to Systems Thinking](LECTURE1.html) |  |  |
|  | 1/25/2023 | LECTURE: [Intro to Population Ecology; Exponential growth](LECTURE2.html) | Gotelli Chapter 1 |  |
|  | 1/27/2023 | LAB 1: [Introduction to population modeling in Excel, InsightMaker, and R](LAB1.html) | Gotelli Chapter 1 |  |
| Week 2 | 1/30/2023 | LECTURE: [Malthus and exponential growth](LECTURE3.html) |  |  |
|  | 2/1/2023 | LECTURE: [Density-dependent population growth](LECTURE4.html) | Gotelli Chapter 2 |  |
|  | 2/3/2023 | [LAB 1 (cont’d)](LAB1.html) |  |  |
| Week 3 | 2/6/2023 | LECTURE: [Density-dependent population growth](LECTURE4.html) | Gotelli Chapter 2 |  |
|  | 2/8/2023 | LECTURE: [Passenger pigeon/Allee Effect](LECTURE5.html) |  |  |
|  | 2/10/2023 | LAB 2: [Density-dependent populations in InsightMaker; MSY](LAB2.html) |  | Lab 1 |
| Week 4 | 2/13/2023 | LECTURE: [Age-structured populations](LECTURE6.html) | Gotelli Chapter 3 |  |
|  | 2/15/2023 | LECTURE: [Age-structured populations](LECTURE6.html) | Gotelli Chapter 3 |  |
|  | 2/17/2023 | LAB 3: [Age-structured populations in Excel and InsightMaker](LAB3.html) |  | Lab 2 |
| Week 5 | 2/20/2023 | President’s Day (no class) |  |  |
|  | 2/22/2023 | LECTURE: [Matrix population models](LECTURE7.html) | Gotelli Chapter 3 | [Get in project groups](FINAL_PROJECTS.html) |
|  | 2/24/2023 | LAB 4: [Matrix population models in R and InsightMaker](LAB4.html) |  | Lab 3 |
| Week 6 | 2/27/2023 | LECTURE: [Matrix population models](LECTURE7.html) | [Heppell 1998](heppell1.pdf) |  |
|  | 3/1/2023 | LECTURE: [Stochasticity and uncertainty](LECTURE8.html) | [Regan 2002](Regan_2002.pdf) |  |
|  | 3/3/2023 | [Work in final project groups: PVA proposals](FINAL_PROJECTS.html) |  |  |
| Week 7 | 3/6/2023 | LECTURE: [Stochasticity and uncertainty](LECTURE8.html) |  |  |
|  | 3/8/2023 | TBD |  |  |
|  | 3/10/2023 | LAB 5: [Stochasticity and uncertainty](LAB5.html) |  | PVA proposals, Lab 4 |
| Week 8 | 3/13/2023 | Review for Midterm #1 |  |  |
|  | 3/15/2023 | MIDTERM #1 |  |  |
|  | 3/17/2023 | [PVA projects](FINAL_PROJECTS.html): group meetings (or make alternate arrangements for a group meeting time) |  |  |
| Week 9 | 3/20/2023 | Spring Break (no class) |  |  |
|  | 3/22/2023 | Spring Break (no class) |  |  |
|  | 3/24/2023 | Spring Break (no class) |  |  |
| Week 10 | 3/27/2023 | LECTURE: [Small population paradigm](LECTURE9.html) | [Caughley 1994](caughley1.pdf) |  |
|  | 3/29/2023 | LECTURE: [Declining population paradigm](LECTURE11.html) | [Caughley 1994](caughley1.pdf) |  |
|  | 3/31/2023 | Work on final projects (PVA models due apr 6) (lab 5 due) |  |  |
| Week 11 | 4/3/2023 | LECTURE: [Population Viability Analysis](LECTURE12.html) | [Beissinger and Westphal 1998](beissinger1.pdf) |  |
|  | 4/5/2023 | LECTURE: [Metapopulations](LECTURE13.html) | Gotelli Chapter 4 |  |
|  | 4/7/2023 | LAB 6: [Metapopulation modeling in InsightMaker](LAB6.html) |  |  |
| Week 12 | 4/10/2023 | LECTURE: [Source-sink dynamics](LECTURE13.html) | [Griffin et al](griffin1.pdf) |  |
|  | 4/12/2023 | LECTURE: [Parameter estimation](LECTURE15.html) | [Amstrup et al Chapter 1](amstrup1.pdf) | PVA models due |
|  | 4/14/2023 | [PVA projects](FINAL_PROJECTS.html): group meetings (working model and description) |  |  |
| Week 13 | 4/17/2023 | Review for Midterm #2 |  |  |
|  | 4/19/2023 | MIDTERM #2 |  |  |
|  | 4/21/2023 | LAB 7: [Parameter estimation: mark-recapture data](LAB7.html) |  | Lab 6 |
| Week 14 | 4/24/2023 | LECTURE: [Species interactions: competition](LECTURE16.html) | Gotelli Chapter 5 | Complete PVA drafts |
|  | 4/26/2023 | LECTURE: [Species interactions: competition](LECTURE16.html) |  |  |
|  | 4/28/2023 | LAB: Final Project Peer Review (submit peer review) |  |  |
| Week 15 | 5/1/2023 | LECTURE: [Species interactions: predator-prey](LECTURE17.html) | Gotelli Chapter 6 |  |
|  | 5/3/2023 | LECTURE: STUDENT PRESENTATIONS |  |  |
|  | 5/5/2023 | LAB: STUDENT PRESENTATIONS |  |  |
| Week 16 | 5/8/2023 | LECTURE: Final Class Review |  |  |
|  | 5/10/2023 | NO CLASS: Prep Day |  |  |
|  | 5/12/2023 | FINAL EXAM (9:50 to 11:50am) |  |  |
| Week 17 | 5/15/2023 | FINAL PAPERS DUE (last day of finals) |  | Final PVA write-up |