Schedule, Fall 2016

NRES 746

August 23, 2016

Because this is the first time this course is being taught, this schedule is highly subject to change!!! Please check for updates frequently!

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| Week | Dates | Topic | Text.Readings |
| Week 1 | 1/22/2018 | LECTURE 1: Course overview; Intro to Systems Thinking | Gotelli Chapter 1 |
|  | 1/24/2018 | LECTURE 2: Intro to Population Ecology; Exponential growth | BCTD Chapter 1 |
|  | 1/26/2018 | LAB: Introduction to population modeling in Excel, InsightMaker, and R |  |
| Week 2 | 1/29/2018 | LECTURE 1: Thomas Malthus; Density-dependent growth | Gotelli Chapter 2 |
|  | 1/31/2018 | LECTURE 2: Density-dependent growth | BCTD Chapter 2 (skim) |
|  | 2/2/2018 | LAB: Density-dependent populations in InsightMaker; maximum sustainable yield (MSY) and more |  |
| Week 3 | 2/5/2018 | LECTURE 1: Passenger pigeon/Allee Effect | Gotelli Chapter 3 |
|  | 2/7/2018 | LECTURE 2: Age-structured populations |  |
|  | 2/9/2018 | LAB: Age-structured populations and stochasticity in InsightMaker |  |
| Week 4 | 2/12/2018 | LECTURE 1: Final projects; Matrix population models | [Heppell 1998](heppell1.pdf) |
|  | 2/14/2018 | LECTURE 2: Matrix population models |  |
|  | 2/16/2018 | LAB: Matrix population models in R and InsightMaker |  |
| Week 5 | 2/19/2018 | PRESIDENT'S DAY (no class) |  |
|  | 2/21/2018 | LECTURE 2: MIDTERM #1 | [Lande 1992](lande.pdf) |
|  | 2/23/2018 | LAB: Work on group PVA projects |  |
| Week 6 | 2/26/2018 | LECTURE 1: Stochasticity and Uncertainty | [Regan 2002](Regan_2002.pdf) |
|  | 2/28/2018 | LECTURE 2: Small population paradigm | [Beissinger and Westphal 1998](beissinger1.pdf) |
|  | 3/2/2018 | LAB: Stochasticity and uncertainty |  |
| Week 7 | 3/5/2018 | LECTURE 1: Individual based models | BCTD Chapter 10 |
|  | 3/7/2018 | LECTURE 2: Declining population paradigm | [Caughley 1988](caughley1.pdf) |
|  | 3/9/2018 | LAB: Work on group PVA projects |  |
| Week 8 | 3/12/2018 | LECTURE 1: Declining population paradigm |  |
|  | 3/14/2018 | LECTURE 2: Population Viability Analysis (PVA) |  |
|  | 3/16/2018 | LAB: Metapopulation modeling in InsightMaker |  |
| Week 9 | 3/19/2018 | SPRING BREAK |  |
|  | 3/21/2018 | " |  |
|  | 3/23/2018 | " |  |
| Week 10 | 3/26/2018 | LECTURE 1: Metapopulations | Gotelli Chapter 4 |
|  | 3/28/2018 | LECTURE 2: Source-sink dynamics | Optional: [Griffin et al](griffin1.pdf) |
|  | 3/30/2018 | LAB: Final projects (PVA models due next monday) |  |
| Week 11 | 4/2/2018 | LECTURE 1: Parameter estimation! | [Amstrup et al Chapter 1](amstrup1.pdf) |
|  | 4/4/2018 | LECTURE 2: MIDTERM #2 |  |
|  | 4/6/2018 | LAB: Parameter estimation: mark-recapture data |  |
| Week 12 | 4/9/2018 | LECTURE 1: Galapagos case study (guest lecture: Elizabeth Hunter) | Optional: [Gibbs et all 2014](gibbs1.pdf) |
|  | 4/11/2018 | LECTURE 2: Galapagos case study (guest lecture: Elizabeth Hunter) |  |
|  | 4/13/2018 | LAB: Work on group PVA projects |  |
| Week 13 | 4/16/2018 | LECTURE 1: Species interactions: competition! | Gotelli Chapter 5 |
|  | 4/18/2018 | LECTURE 2: Species interactions: competition! |  |
|  | 4/20/2018 | LAB: Work on group PVA projects |  |
| Week 14 | 4/23/2018 | LECTURE 1: Species interactions: competition! |  |
|  | 4/25/2018 | LECTURE 2: Case study: desert mule deer management |  |
|  | 4/27/2018 | LAB: Case study: mule deer management (led by Jerrod and Nathan) (FINAL PAPER DRAFT DUE) |  |
| Week 15 | 4/30/2018 | LECTURE 1: Predator-prey | Gotelli Chapter 6 |
|  | 5/2/2018 | LECTURE 2: Predator-prey |  |
|  | 5/4/2018 | LAB: STUDENT PRESENTATIONS |  |
| Week 16 | 5/7/2018 | LECTURE 1: final class review |  |
| Week 17 | 5/11/2018 | FINAL EXAM (9:50 to 11:50am) |  |
|  | 5/16/2018 | FINAL PAPERS DUE (last day of finals) |  |