

SCHEDULE

DATE	LECTURE	ADVANCE READING	HOMEWORK	LAB (WED)
22-Aug	Introduction; Modeling and simulation, representation		HW 1: Essay	Lab 1: Blockly
29-Aug	Programming fundamentals	Hulse et al. 2016	HW 2: Programming	Lab 2: NetLogo 1
5-Sep	Labor Day - no class			Lab 3: NetLogo 2
12-Sep	Modeling goals	Choose 2 of 6 articles from Ecosphere Special Issue	HW 3: Concept map	Lab 4: NetLogo 3
19-Sep	Problem conceptualization	Argent et al. 2016	HW 4: Entities	Lab 5: NetLogo 4
26-Sep	Qualitative modeling	Herr et al. 2016	HW 5: MentalModeler	Lab 6: Python 1
3-Oct	Logic models	Pianosi et al 2016	HW 6: Logic models	Lab 7: Python 2
10-Oct	Calibration; Verification, & validation	Bennett et al. 2013	HW 7: 2 articles	Lab 8: Python 3
17-Oct	Modeling complex problems	Kelly et al. 2013	HW 8: Project entities	Lab 9: ArcPy 1
24-Oct	Modeling examples 1	TBD Student selections	HW 9: Project logic model	Lab 10: ArcPy 2
31-Oct	Modeling examples 2	TBD Student selections	HW 10: Project proposal	Lab 11: Geosimulation 1
7-Nov	Modeling examples 3	TBD Student selections		Lab 12: Geosimulation 2
14-Nov	Share your project design			Work on project
21-Nov	Computing with complex datasets (guest speaker)	Nativi et al. 2015		Work on project
28-Nov	Cyberinfrastructure for scientific modeling	Aronsen et al. 2015		Work on project
7-Dec	Final project write up due Wednesday 1:00 pm			