Week 1
Lecture 1: Review of GIS concepts
Lecture 2: GIS Modeling:
LAB 1: Creating a simple suitability model

Week 2
Lecture 3: Geostatistical interpolation in GIS
Lecture 4: Application of interpolation in environmental analysis
LAB 2: Interpolation in GIS

Week 3
Holiday: Martin Luther King, Jr. Day
Lecture 5: Python scripting for geoprocessing workflows
LAB 3: Geoprocessing using python

Week 4
Lecture 6: Introduction to deep learning in ArcGIS Pro
Lecture 7: Deep learning application to vegetation health
LAB 4: Deep learning using ArcGIS Pro

Week 5
Lecture 8: Hydrologic analysis in ArcGIS Pro
Lecture 9: Predicting floods
LAB 5: Hydrologic analysis

Week 6
Lecture 10: Water quality analysis
Lecture 11: Guest lecture: Nitrate Leaching in Central Valley
LAB 6: Water quality

Week 7
Holiday: Presidents' Day
Lecture 12: Midterm

Week 8
Lecture 13: Introduction to image classification
Lecture 14: Land cover analysis using ArcGIS Pro
LAB 7: Classify land cover change

Week 9
Lecture 15: Wild fire risk assessments using ArcGIS Pro
Lecture 16: Guest lecture
LAB 8: Calculate landslide risk from world fires

Week 10
Lecture 17: Updating real-time data in ArcGIS Pro
Lecture 18: Final exam review
LAB 9: Predict weather with real-time data

Finals Week
Date and time of final exam to be determined

Grading
Lab: 45%
Environmental Analysis using GIS
2:10 - 3:00 PM M,W  Lecture
3:10 - 6:00 PM M,W  Laboratory Sciences Lab Building 2020 & Hunt Hall 253 (section 02)
Instructor(s): Professor Isaya Kisekka

Midterm: 25%
Final: 25%
Attendance: 5%

4 Units