Human health problems of air pollution, sound pollution and congestion as well as collective issues such as social interaction, inclusive design and age based access are becoming increasingly accessible to measure via low-cost Arduino based sensors.

This course will explore design with a finer-granularity of space and time of data than previously available. Methods will include: 1) geospatial data acquisition using Rhino Grasshopper, Elk and Elephant; 2) Arduino prototyping and coding with sensors for PM, CO, NO, sound, light, heat, humidity, barometric pressure, soil moisture or PH; and 3) Adobe Premiere and possibly After Effects and Google Earth Studio. Students will DESIGN a plaza space in Eugene based on data analysis and or responsive design strategies and simultaneous baseline data elsewhere in Eugene. Landscape Architecture and Barcelona 2023 students are especially welcome.