

## 48768 Indoor Environmental Quality (IEQ)

The course is an introduction to the importance of the indoor environment and human health and productivity. Throughout the semester the course lectures will challenge your intellectual curiosity as it relates to the built environment. The course provides an overview of the metrics utilized to define Indoor Environmental Quality and methods to identify their correlations to energy consumption, health, productivity, equitable design and design justice. During the course, students will also gain a deeper understanding of the correlations between IEQ and energy consumption, health, productivity, and equitable design and their contribution to larger energy reliance, sustainable, environmental justice and development goals.

Throughout the semester students will analyze case studies and participate in field studies to explore basic methods for measuring IEQ, quantifying IEQ metrics, reporting results and providing recommendations to key stakeholders. The course emphasizes educational facilities, in particular K-12 school buildings as the central building type. As part of the course, students will investigate new methods and advanced strategies to improve IEQ including air quality, lighting, thermal quality, acoustic conditions, and spatial quality.

The class will include a combination of in class lectures and field work in local public schools in collaboration with the Pittsburgh USBGC's chapter, the Green Building Alliance (GBA) and their Green School's Academy.