



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Air Quality Engineering

## ENVENG 5140

**Credit Hours:**

3.00 - 3.00

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**Course Components:**

Lecture

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**Course Description:**

This course introduces several concepts which will provide students with a basic knowledge of several air quality issues. We will first discuss sources and classifications of air pollutants, followed by a brief primer on relevant atmospheric science. Following this, we will focus on two aspects related to atmospheric chemistry: tropospheric ozone formation and secondary aerosol production.

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**Prerequisites and Co-requisites:**

Prereq: Chem 1220,1250, or equiv, and Math 2177, 2174, or 2415, and enrollment in CivilEn or EnvEng major; or Grad standing; or permission of instructor.

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**Course Goals / Objectives:**

- Describe major sources of air pollution and their emissions
- Develop simple models to predict atmospheric transport of pollutants
- Identify pathways resulting in the photochemical formation of secondary pollutants
- Demonstrate the importance of understanding aerosol size composition
- Estimate the potential impacts of air pollution on human health, visibility, and climate