

# Air Pollution

## AP3050

Lectured by Prof. Neng-Huei Lin (林能暉) and Prof. Guey-Rong Sheu (許桂榮)

Time: 13:00-15:00 Wed, 13:00-14:00 Thu.

This introductory course provides sophomores and above with a basic knowledge of the history, theory, observation, measurement, and regulation of air pollution and its link with governmental policy and public concerns. In-class lectures, intensive assignments, discussions, and possibly field trips will be given. The contents will cover the following topics:

0. Introduction
1. History of air pollution
2. Background chemistry and physics
3. Urban air pollution
4. Atmospheric particles
5. Acid deposition
6. Air toxics
7. Air pollution meteorology
8. Air quality and regulation
9. Air quality measurements – In-situ and remote sensing techniques
10. Air pollution modeling
11. Climate change, zero carbon policy, and air pollution control

Textbook:

1. Air Pollution and Global Warming, M. Z. Jacobson, 2<sup>nd</sup> edition, 2012.
2. Air Quality, W. T. Davis and J. S. Fu, T. Godish, 6<sup>th</sup> edition, 2021.

Score:

1. 6-8 assignments 70%
2. Discussions and reports 30% (including 10% in-class discussion and performance)

All class materials, including assignments and class notes, can be found on the website:

<http://aerosol.atm.ncu.edu.tw/>