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| Class: Fourth | Semester: Second | | |
| Subject: Air pollution II | **Units: 3** | **Thr.: 2** | **Lab: 2** |

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| Part | Subjects |
| 1 | **Air Pollutants Dispersion**  Buoyant acceleration of parcel, Ideal dispersion of air pollutants, Plume behavior as a function of initial source parameter, Stack effluent exit velocity, Stack effluent temperature |
| 2 | Box model, Plume rise, General equation of Gaussian plume, Indoor air pollution |
| 3 | **Air pollutants deposition**  Dry deposition, Wet deposition |
| 4 | **Air Pollution Effects**  Human health, Plants, Material and structures, Visibility, Climate, Clouds and precipitation, Upper atmosphere, Climate change |
| 5 | **Air Pollution Control**  Control methods on the pollution, Treatment of air pollution |
| 6 | **Risk Analysis and Assessment** |

**Textbook**

1. Monim H Al-Jiboori: تلوث الغلاف الجوي, مطبعة السيماء .2015

2. Seinfeld J. H. and Pandis S. N., Atmospheric Chemistry and Physcis: from Air pollution to Climate Change, 3rd ed., John Wily and son, Inc., 2016, pp. 766-841.

**References:**

1. Lazaridis, M., First Principles of Meteorology and Air Pollution, Greece: Springer, 2011, p. 362.
2. Hemond, H. F. and Frechner-Levy E. J., Chemical fate and transport in the environment, 2 nd edition ed., Academic press, 2000, p. 290.
3. Tiwary A. and Colls J., Air pollution: Measurment, modeling and mitigation, 3 rd eddition ed., Routledge, 2010, p. 140.