Syllabus for Aerosol and Its Applications

Instructor: Yee-Lin Wu Phone number: 2386764 or 0935490042 E-mail: <u>ylwu@mail.ncku.edu.tw</u>

6th September, 2022

Class hour: 13:10-15:00, Tuesday; 16:10-18:00, Friday (every other weeks)

Outlines:

Introduction: First week Characterizations of Particles: Second week Particle Size Statistics: Third and fourth weeks HW#1 due on 10/4th Aerosol Dynamics: Fifth and sixth weeks HW#2 due on 10/18th Midterm I: 18th October Transport of Aerosol: Seventh to tenth weeks HW#3 due on 11/15th Electrical and Optical Properties: Eleventh week Aerosol Measurements: Twelfth and thirteenth weeks HW#4 due on 12/6th Midterm II: 6th December Outline of term paper: Fourteenth week Particle Formations and Atmospheric Aerosol: Fifteenth and sixteenth weeks HW#5 due on 1/3rd Presentation of term paper: Seventeenth week Final: 3rd January Grading: Homework: 30% (6% for each assignment); Examinations: Midterms (Close Book): 30%; Final: 25%;

Term paper: 15%.

References;

- W.C. Hinds (1999) "Aerosol Technology: Properties, Behavior, and Measurement of Airborne Particles," 2nd Edition, John Wiley & Sons, New York.
- S.K. Friedlander (2000) "Smoke, Dust, and Haze: Fundamentals of Aerosol Dynamics," 2nd Edition, Oxford University Press, New York.
- 3. P.C. Reist (1993) "Aerosol Science and Technology," 2nd Edition, McGraw-Hill, New York.
- 4. J.H. Seinfeld and S.N. Pandis (1998) "Atmospheric Chemistry and Physics: From Air Pollution to Climate Change," John Wiley & Sons, New York.
- 5. K. Willeke and P.A. Baron (1993) "Aerosol Measurement: Principles, Techniques, and Applications"