**NATIONAL SUN YAT-SEN UNIVERSITY**

**Institute of Environmental Engineering**

**Scheme of course Structure for Master Level**

Water Pollution Prevention

Biological Treatment for Wastewater (3)

Water Pollution and Control (3)

Groundwater Characterization and Analysis at Contaminated Sites (3)

Air Pollution Prevention

Principles of Air Pollution Engineering (3)

Air Pollution Control and Design (3)

Technologies for the Control of Odors and Volatile Organic Compounds (3)

Special Topics on Atmospheric Models (3)

Waste Management

Natural Systems for Waste Treatment (3)

Resource Recovery and Recycling of Solid Waste (3)

Other Courses/Subjects

Principle of Instrument Analysis (3)

Introduction to Industrial Safety (3)

Noise Engineering (3)

Technologies of Emergency Response to Hazardous Chemical Releases (3)

Independent Studies (3)

Sustainability

Sustainable Environment Planning (3)

Environmental Decision-Making and Management (3)

Environmental Toxicology (3)

Environmental Biotechnology (3)

Principle and Technology of Environmental Electrochemistry (3)

Experimental Analysis Courses

Water and Wastewater Analysis(3)

Solid Waste and Soil Analysis (3)

Sampling and Analysis of Air Pollutants (3)

(Must Choose 1 Courses)

Elective Courses

Environmental Chemistry (3)

Environmental Fluid Mechanics (3)

Physical Chemical Treatments (3)

Reaction Kinetics (3)

(Must Choose 2 Courses)

Requirement

Seminar 1~4 (1)

(Must Choose 3 from 4 Professional Categories Listed Below)

Prerequisite Courses

Engineering Mathematics (I) or Statistics (0)

Thermodynamics (I) (0)

Biology (0)

Fluid Mechanics (0)

Environmental Chemistry (0)

Hydrology (0)

(Must Choose 4 Courses)

( ) the number means credit