

國立臺北大學自然資源與環境管理研究所

107 學年度第一學期『環境工程科學概論』

課程講義(二)：基本概念與環境議題

- KEY FACTORS OF ENVIRONMENTAL SCIENCE AND ENGINEERING
 - Definition of “Environment”

環境基本法第 2 條：環境係指影響人類生存與發展之各種天然資源及經過人為影響之自然因素總稱，包括陽光、空氣、水、土壤、陸地、礦產、森林、野生生物、景觀及遊憩、社會經濟、文化、人文史蹟、自然遺蹟及自然生態系統等。
 - Media or Carriers: Air, Water, Soil, Solid Waste...
 - Aspects：空水廢毒噪＋「節能減碳」：藍天綠地、青山淨水、健康永續
⇒「保定」新解：保護環境、安定氣候；綠水青山就是金山銀山
 - Spatial Scales – Local, Regional, Continental, and Global
 - Time Scales – Second, Minute, Day, Year, Decade, Generation, Century, *etc.*
 - Orientation – Economy-Oriented, Human-Oriented, Ecology-Oriented
 - Industrial Sectors, Material and Energy, Concentrating vs. Diluting
- ENVIRONMENTAL ISSUES
 - 全球尺度：氣候變遷、臭氧層破壞、棲息地與生物多樣性之減少等
Global Scale: Climate Change, Ozone Layer Depletion, Loss of Habitats/Biodiversity
 - 區域性尺度：酸雨、細懸浮微粒、能見度問題、水體污染、土壤酸化／鹽化等
Regional Scale: Acid Deposition, Visibility, Water Pollution, Soil Acidification/Salinization
 - 地區性尺度：光化學煙霧、土壤及地下水污染、廢棄物、噪音振動問題等
Local Scale: Photochemical Smog, Soil and Groundwater Contamination, Solid Waste, Noise
 - 環境議題利害相關者 (Stakeholders)：Social Responsibility ([Citizen Engineer](#))
- ENVIRONMENTAL INITIATIVES
 - UN Summits on Sustainable Development
⇒ WSEHAB ⇒ WEF Nexus
 - UNFCCC and Corresponding Protocols/Agreements
⇒ COP 3, COP 21, COP 24?
 - MDG and SDG
⇒ UN Global Compact ⇒ Governments vs. Corporates
 - Treaties and Conventions
⇒ Climate Change; Ozone Layer Protection
⇒ Wild Lives and Biodiversity; Wet Lands and Ecological Habitats
- HOMEWORK ASSIGNMENT #1 (No hand-in needed)：

請收『環境基本法』、『環境保護法』、UN Sustainable Development Goals、UN Global Compacts 等相關資料並詳細閱讀之。