Syllabus CHEM 541/641 - BCEM 541

General Biomolecule-Toxin interaction principles
Microbes and organic pollutants
Microbes and metals (Toxicity and Resistance)
Microbes and the Antibiotic toxin.

Principles of ecotoxicology - biology + chemistry + ecology
Environment policy and regulation - strategies, guidelines, and case studies
Modern ecotoxicology - emerging contaminants, mixtures, and sub-chronic endpoints
Endocrine disruption, genetic, and metabolic effects in fish

Air pollution - gases
Air pollution - particular matter
Air pollution - current research trends on the link between air pollution and health

Elements & Life
Introduction to the toxicology of metals
Case Study: Minamata Disease
Probing metal exposure-disease relationships
Introduction to Chemotherapy

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