

ENSC4525 Advanced Environmental Chemistry

Course Description:

This course is designed to extend students' understanding and application of various aspects of environmental chemistry as regards the impacts of chemical pollutants arising from industries such as bleaching/dyeing of textiles, plating of printed circuit boards, manufacturing of batteries and power generation. The development and application of green chemistry as well as cleaner production towards solving the chemical pollution problems are extensively discussed. The course also explains major test methods for the compliance monitoring and enforcement of concerned environmental laws and standards.

Pre-requisite:

ENSC2515 or permission of the instructor

Main Course Outline (for reference only):

1. Chemical pollutants
2. Chemical hazards
3. Anthropogenic sources of chemical pollutants
4. Green chemistry and cleaner production
5. Green chemical products
6. Environmental catalysis
7. Renewable energy and energy utilization
8. Environmental analysis and monitoring