



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Dipartimento di Scienze
Chimiche e Geologiche

PhD Course

Models and Methods for Material and Environmental Sciences

PRESENTS

Microplastics: chemistry, impact, and solutions

Prof. Costanza Scopetani

Chemical structure and classification of microplastics. Mechanisms of degradation and formation. Sources and transport in environmental compartments (water, soil, air). Analytical techniques for detection and characterization (FTIR, Raman, Py-GC/MS, microscopy). Ecotoxicological and human health impacts. Overview of current regulatory approaches and sustainable material alternatives. Emphasis on scientific discussion and critical analysis of real-world case studies. Laboratory sessions on MPs extraction from water and soil samples.

24 February 2026: 7h (10-13 & 14-18), room U 0.3

25 February 2026: 7h (10-13 & 14-18), room U 1.1

27 February 2026: 6h (9-13 & 14-16), room U 0.2

DSCG – via Campi 103

costanza.scopetani@unimore.it