



# Environmental Geochemistry of Petroleum and Refined Products

GEOLSCI 134/234 This *new* course focuses on petroleum, including gases, liquids, and refined products, and the methods used to monitor environmental contamination and remediation. The course is designed for geologists and environmental geoscientists with some background in organic chemistry. It shows how to identify the origins of contaminants, deconvolute mixtures, and validate the spatial significance of mapped hydrocarbon distributions. Lectures explain processes that control the composition and distribution of petroleum in the subsurface and in marine or subaerial spills, e.g., biodegradation, photooxidation, and water washing. Case studies and exercises show how geochemistry and multivariate statistics can be used in successful forensic studies.