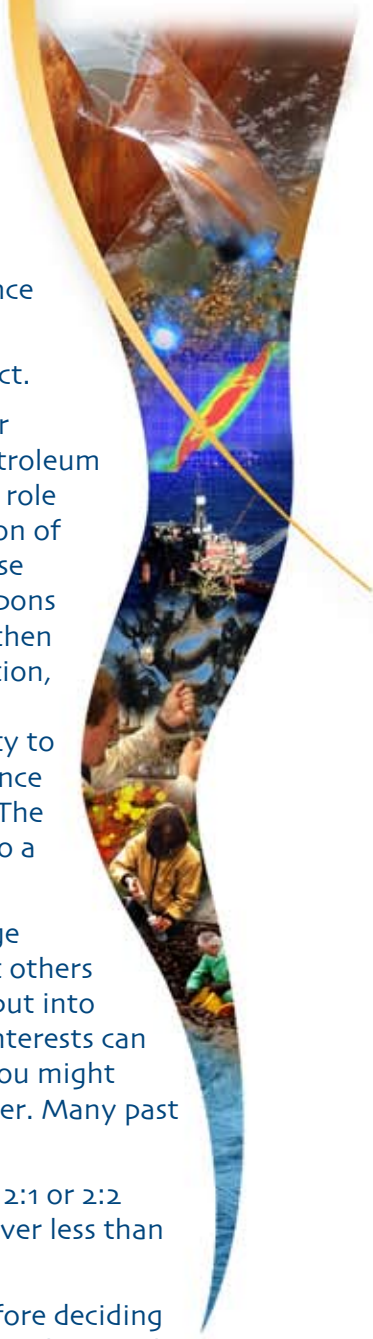
MSc
petroleum geochemistry

Newcastle University

Civil Engineering and Geosciences



The MSc in Petroleum Geochemistry is a unique one-year full-time programme (up to four years part-time) that aims to equip science graduates with the skills, knowledge and understanding necessary for successful careers in the petroleum industry and its service sector. The course also provides our graduates with an excellent foundation for further postgraduate research, and not just in petroleum geochemistry: it facilitates "migration" into the much wider field of organic geochemistry, a subject not given detailed coverage in undergraduate geology or chemistry courses but of steadily increasing importance to many areas of Earth, environmental and archaeological science.

The programme consists of two parts, a taught component and a research project.

After a brief induction to sedimentary and petroleum geology, the first semester begins by leading you sequentially and logically through the key aspects of a petroleum system. We begin by introducing sedimentary organic matter, its origins and its role as a potential source of petroleum, followed by its maturation and the generation of hydrocarbons. You then learn about molecular marker compounds and how these helps us to understand the source and maturity of organic matter and hydrocarbons in sedimentary basins. The migration and accumulation of oils in reservoirs are then addressed, along with some of the environmental aspects of petroleum exploration, production and use. All but one of the course examinations are then held in mid January. The first two second semester modules provide you with an opportunity to apply what you have learnt to the evaluation of a real working petroleum province in the Wessex Basin of Southern England - in the field as well as the classroom. The last taught course module considers how petroleum geochemistry contributes to a greater and more quantitative understanding of the overall petroleum system.

The research project module allows you to apply further the skills and knowledge gained in the taught part of the course. Many projects are laboratory based, but others involve field work, computer modeling or desk studies. We welcome student input into planning dissertation projects and if you wish to do one in a specific field your interests can often be accommodated. You may work within one of our research groups, or you might even work elsewhere in collaboration with another industrial or academic partner. Many past MSc students have coauthored papers based on their project work.

The course is supported by NERC studentships, and UK students with first class, 2:1 or 2:2 degrees can usually expect to receive full or partial funding (NERC support is never less than 50% of a full grant).

If you would like further information, or if you would like to visit the School before deciding whether to apply, please contact us at ceg.geochemistry@ncl.ac.uk. Should you wish to apply online, the University's postgraduate application form is available via www.ceg.ncl.ac.uk/postgrad/pgt/apply.

The Geological Society
Accredited programme

email: ceg.geochemistry@ncl.ac.uk • http://www.ceg.ncl.ac.uk