Course Summary
The course will provide an introduction to the study of thin section micromorphology and its application to Quaternary sediments. The course will focus on the preparation of thin sections from unconsolidated sediments, using appropriate descriptive formats and generate robust interpretations of different Quaternary sediment sequences. Students should also have an understanding of how thin section micromorphology has become a key tool in Quaternary Sedimentology and is of crucial importance for the interpretation and palaeoenvironmental reconstruction of Quaternary sequences, whilst also essential for the generation of high-resolution chronologies.

The syllabus will cover:
- Examples of palaeoenvironmental reconstructions using micromorphology; Sampling techniques in the field and from cores; Preparation of samples in laboratories at RHUL; Introduction to petrological microscopy
- Glaciolacustrine sediments; Introduction to micromorphology of glacigenic sediments
- Glacigenic sediments
- Quaternary palaeopedology

Learning Outcomes
By the end of this course, students should be able to:
- Understand how sections are sampled in the field and laboratory, including manufacture of thin sections, timescales for the preparation of the slides and costs associated with production
- Use of petrological microscopes for the description of Quaternary sediments
- Use appropriate descriptive techniques and generating summary sheets for communicating the findings of microscale analysis of the different Quaternary sediments covered in the course
- Make appropriate process-based interpretations of thin sections to develop a palaeoenvironmental reconstruction
- Critically examine the micromorphological technique in a variety of sedimentological contexts

Key Content
The emphasis of the course will be placed on developing the microscopy skills of the students and therefore much time will be devoted to microscopic work. During the examination of sediments time will be set aside for students to describe their findings to the group and discuss the processes of sediment deposition.

Date
4th - 8th February 2019

Tutor
Dr Adrian Palmer

For more information and bookings please contact:
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