

Fossils and the history of life

Start date Sunday 23 October 2016 **Time** 10:00 – 16:45

(Please note that this is a repeat of the day-school given on Saturday 22 October 2016)

Venue Madingley Hall
Madingley
Cambridge

Tutor Dr Peter Sheldon **Course code** 1617NDX005

Director of Programmes Emma Jennings

For further information on this course, please contact Public Programme Co-ordinator, Clare Kerr
clare.kerr@ice.cam.ac.uk or 01223 746237

To book See: www.ice.cam.ac.uk or telephone 01223 746262

Tutor biography

Dr Peter Sheldon is an Honorary Associate in the Department of Environment, Earth and Ecosystems at the Open University, where he was a Senior Lecturer in Earth Sciences until 2015. He has given 75 residential courses in geology, palaeontology and evolution for the University of Cambridge Institute of Continuing Education since 1979. From 2008 to 2011 he was External Examiner for Scientific Studies at Oxford University's Department for Continuing Education, where he has given over 40 day-schools since 1993. His teaching style combines fieldwork, hands-on study of real specimens of rocks, minerals and fossils, and interactive lectures. He chaired the Open University course on *Geology* and has contributed to many other OU courses, including *Fossils and the History of Life*, *Evolution*, *Earth's Physical Resources*, *Discovering Science*, *The Geological History of the British Isles* and *Earth Science*.

Course programme

Sunday 23 October

9:30	Terrace bar open for pre-course tea/ coffee
10.00 – 11:15	Preservation processes. Basic principles of palaeontology and evolution, and the main fossil groups.
11.15	Coffee
11:45 – 13:00	Early life, the Cambrian explosion and events in the Palaeozoic Era.
13:00	Lunch
14:00 – 15:15	Practical session (30 mins), studying fossil specimens in the teaching room. Life and death in the Mesozoic Era (45 mins).
15:15	Tea
15:30 – 16:45	Ups and downs of the last 65 million years: Life and death in the Cenozoic Era.
16:45	Day school ends

Course syllabus

Aims:

- 1) To provide a wide-ranging introduction to this inspiring subject for beginners.
- 2) To stimulate a continuing interest in palaeontology and the history of life.

Content:

Topics include:

- how fossils get preserved
- how to recognise the major fossil groups
- an overview of the history of life
- basic principles of evolution and the fossil record
- recent finds and remaining mysteries

There will also be a chance to study many real fossils put out in the teaching room.

No previous background in palaeontology and geology is needed for the course and no reading is required in advance. You are very welcome to bring along your own fossil specimens which you would like to be identified or which you think are of special interest.

Presentation of the course:

Presentation of the course will involve Powerpoint lectures with plenty of opportunity to ask questions and a practical session in which students can pick up and personally examine a large number of fossils put out on tables in the teaching room.

Outcomes:

As a result of the course, within the constraints of the time available, students should be able to:

1. Identify some of the most common types of fossil organisms, and suggest the geological periods and environments they indicate.
2. Explain the various ways in which organisms can become preserved in the fossil record.
3. Outline in a few sentences some of the key events in the history of life, including mass extinctions and evolutionary radiations.

Reading and resources list

No reading is required in advance and no books need to be bought (or consulted) for the course.

Many useful books on fossils, evolution, geology and palaeontology will be available for people to look at during the day, and a detailed and extensive booklist will be provided.

Website addresses

Among the many excellent websites you may wish to explore if you have access to the Internet are the following, which have links to a vast number of other relevant sites:

<http://www.nhm.ac.uk> - The Natural History Museum, London.

<http://www.ucmp.berkeley.edu> - Many exhibits and palaeontology/evolution links.

<http://www.si.edu> - The Smithsonian Institution.

<http://www.amnh.org> - The American Museum of Natural History.

<http://www.geolsoc.org.uk> - The Geological Society of London.

<http://www.bgs.ac.uk> - British Geological Survey.

Additional information

Venue

Details of how to find Madingley Hall can be found on our website:

http://www.ice.cam.ac.uk/who-we-are/how-to-find-the-institute*

Refreshments

Tea and coffee and lunch will be provided. If you have any specific dietary requirements or allergies and have not already advised us, please inform our Admissions Team on

ice.admissions@ice.cam.ac.uk or +44 (0)1223 746262.

Note Students of the Institute of Continuing Education are entitled to 20% discount on books published by Cambridge University Press (CUP) which are purchased at the Press bookshop, 1 Trinity Street, Cambridge (Mon-Sat 9am – 5:30pm, Sun 11am – 5pm). A letter or email confirming acceptance on to a current Institute course should be taken as evidence of enrolment.

Information correct as of: 02 June 2016