Summer Geology Field Camp in Scotland

The School of Earth & Environmental Sciences at the University of St Andrews invites you to walk in the footsteps of geological giants and to study in the “birthplace of geology” at one of the oldest universities in the English-speaking world.

An Ideal Location

Follow in the footsteps of Hutton, Lyell, Barrow, Peach and Horne as we tour and map the iconic geological sites of Scotland. With more geological diversity per square kilometre than any other country in the world, renowned geological heritage and spectacular landscapes, Scotland is an ideal location to undertake field geology training.

Fieldwork and mapping starts on the doorstep of our Department in St Andrews and culminates in the Northwest Highlands, covering three geological terranes and three billion years of Earth’s history.

The course is suitable for Geology/Earth Science majors and is designed to fulfill field camp requirements for any Earth Science-related degree.

Join a Long Tradition

Geology has been taught at St Andrews since 1850, with connections to the earliest beginnings of the subject in the eighteenth century. The University has hosted several famous geologists over the last 150 years, including Charles Lapworth, Alleyne Nicholson and Harald Drever, and continues to produce exceptional graduates today, such as Dr Andrew Mackenzie, the current CEO of BHP Billiton and Professor Gordon Osinski, NSERC/MDA/CSA/CEMI Industrial Research Chair in Earth and Space Exploration at the University of Western Ontario.

Today, the School of Earth & Environmental Sciences is recognised internationally as a leader in geological field training. The University ranks as one of the top 0.5% institutions worldwide and 95% of our School’s graduates are employed within 6 months of graduating.

Scotland’s geological diversity is a key factor in our School’s field training. Situated in the Midland Valley Terrane, and just one hour from the Highlands, travel is minimised allowing more time “on the rocks”.

Further information:
Dr Will McCarthy
School of Earth & Environmental Sciences
University of St Andrews, Scotland, UK
T: +44 (0)1334 463940
www.facebook.com/GeologyFieldCampScotland/
Email: geologyfieldcamp@st-andrews.ac.uk
Module Specifics & Requisites

Field training is led by our Department staff who have decades of experience in geological fieldwork worldwide. We teach to the same high standards experienced by our BSc and MSc students. A total of 31 days will be spent conducting fieldwork designed to build upon a series of short introductory workshops and lectures that are delivered at the start of the course and during evening workshop sessions while in the Highlands.

ES4801 Geology Field Camp in Scotland
6 USA semester core science credits /24 Scottish credits

Pre-requisites
- Enrolled as a geoscience major at a HE institution
- 100 Scottish credits/24 USA credits in geoscience
- GPA 3.0 or above

2020 Dates
June 4th to July 5th 2020, note that dates vary year to year; see www.earthsci.st-andrews.ac.uk/short-courses-in-field-geology

2020 Week Field Camp Fees
£4,050 (GBP) inclusive of;
- Five weeks of tuition at the University of St Andrews, Scotland
- Accommodation and food on campus
- Field accommodation in high quality youth hostels with internet, shower and full kitchen facilities
- All transport during the course
- All specialist materials required for mapping projects
- Admittance to historic sites of interest
- A scheduled airport shuttle bus (Edinburgh/Glasgow) Cost does not include travel expenses between home country and St Andrews.

Our Staff
Our students appreciate that staff are friendly and research-active geologists. Here are some of the people you will be working with during your summer in Scotland:

Dr Will McCarthy
Field Academy Coordinator
Will completed his PhD at University College Cork, Ireland in 2013. His research interests are in igneous and metamorphic petrology, orogenic stress and magma transport mechanisms.

Dr Catherine Rose
Lecturer
Catherine completed her PhD at Princeton University in 2012. Catherine’s research involves pairing sedimentary stratigraphic data with a range of geochemical proxies to explore key Earth history events, such as large perturbations to the global carbon cycle and changes in climate.

Prof Richard White
Chair of Geology
Richard is a world-leading metamorphic geologist with a broad spectrum of field, petrological and thermodynamic research experience. Uniting the theory of novel thermodynamic models with the reality of field relationships to understand the evolution of Earth’s crust formulate the core of his work.

Prof Tony Prave
Head of School
Tony obtained his PhD from Penn State University in 1986. His area of expertise is stratigraphy and the interpretation of key events in Earth history. His methods are dictated largely by a diligence to field geology and geochemical analyses.

Excellence in Fieldwork
Herbert H Read famously said “…the best geologists are the ones who have seen the most rocks” (Read, 1940); we agree! Our graduates are highly sought after because employers know that St Andrews’ students have extensive experience working on diverse and spectacular outcrops and are trained by passionate and committed staff.

Itinerary*

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arrive at the University of St Andrews</td>
</tr>
<tr>
<td>2</td>
<td>Matriculation &amp; Opening Lectures</td>
</tr>
<tr>
<td>3</td>
<td>Carboniferous Diatremes, Mantle Melting &amp; Ruby Bay</td>
</tr>
<tr>
<td>4-5</td>
<td>Carboniferous Stratigraphic Correlations, Fife Coast</td>
</tr>
<tr>
<td>6</td>
<td>Stratigraphy, Water and Whiskey, Kingsbarns</td>
</tr>
<tr>
<td>7-10</td>
<td>Fife Costal Mapping Exercise, Fife</td>
</tr>
<tr>
<td>11</td>
<td>Tay Nappe Exercise - Refolded Folds, Dunkeld</td>
</tr>
<tr>
<td>12-14</td>
<td>Barrovian Metamorphism, Stonehaven</td>
</tr>
<tr>
<td>15-16</td>
<td>Buchan Isograds, Portsoy</td>
</tr>
<tr>
<td>17-23</td>
<td>Igneous Petrology &amp; the British Palaeogene, Isle of Mull</td>
</tr>
<tr>
<td>24-25</td>
<td>Glencoe Volcanics, Glencoe Valley</td>
</tr>
<tr>
<td>26</td>
<td>Proterozoic Stratigraphy &amp; Fold and Thrust Belts, Assynt</td>
</tr>
<tr>
<td>27-30</td>
<td>Independent Mapping, Assynt</td>
</tr>
<tr>
<td>31-32</td>
<td>Deep Time; The Archean and Proterozoic, NW Highlands</td>
</tr>
<tr>
<td>33</td>
<td>A Wee Wonder; 3.2 Billion Years of Earth History in 1 Day, NW Scotland</td>
</tr>
<tr>
<td>34</td>
<td>The Great Glen Fault &amp; Caringorms</td>
</tr>
<tr>
<td>35</td>
<td>End of Course</td>
</tr>
</tbody>
</table>

*Subject to change due to weather conditions & tide times

For more information:
http://earthsci.st-andrews.ac.uk/
Find us on Facebook
www.facebook.com/GeologyFieldCampScotland/
The University of St Andrews is a charity registered in Scotland, No: SC013532