



FSC Outdoor Classroom for Scotland Advanced Higher Programmes

*FSC programmes are fixed length courses with clearly stated outcomes and links to
SQA Arrangements*

Geographical Methods and Techniques 3 days

Please visit

<http://www.field-studies-council.org/outdoorclassroom/scotland/advancedhighergeography.aspx>
for alternative Advanced Higher programmes

OVERVIEW

This programme is designed to meet the needs of the Advanced Higher *Geographical Methods and Techniques* unit and Core Skills. The students are introduced to a range of geographical methods and techniques within real world investigative contexts.

This is a short course that packs a lot of geography into a limited amount of time. Students will leave with a greater understanding of fieldwork and the skills needed to complete a geographical study. Students will develop core skills of independent and co-operative learning and working, critical thinking and communication.

PROGRAMME LENGTH

3 Days (2 nights with 6 teaching sessions)

Start days: Monday, Wednesday or Friday

Groups would normally arrive in time to be taught in the afternoon of the first day and would then be taught on that evening and for one full day subsequently. Groups depart immediately after the morning session on the day of departure.

Day 1	Day 2	Day 3
Arrive Afternoon & evening sessions	Morning, afternoon & evening sessions	Morning session Depart after Lunch

PROGRAMME CONTENT

Includes:

- Investigation of the local landscape – soils, slope/stream morphology, landform process and human land use
- Geographical sampling methods
- Data collection using a range of fieldwork techniques
- Analysis and presentation of data

Each session is organised as if it were a geographical study, therefore allowing students to gain ideas and practice that will be relevant to planning and completing their own geographical study.

Skills and techniques covered during the three day programme are listed below:

<ul style="list-style-type: none"> • Morphological mapping • Vegetation sampling • Slope measurement and analysis • Stream measurement and analysis • Soil profile description and analysis • Pebble measurement and analysis: size and shape • Rural land use mapping 	<ul style="list-style-type: none"> • Sampling: <i>random, systematic, stratified</i> • Recording and Handling Data: <i>field sketch, tables, ratio data</i> • Graphical Presentation: <i>kite and scatter graphs</i> • Descriptive Statistics: <i>mean, median, mode</i> • Introductory Statistical Testing: <i>Spearman's rank correlation coefficient and Pearson's product</i>
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LEARNING OUTCOMES/OBJECTIVES

Soil Profiles and Processes

Learning Objectives	Learning Outcomes
<ul style="list-style-type: none"> • Explain how and why soils change along a catena profile • Outline the ways in which physical characteristics of soils can affect vegetation • Carry out a slope profile and vegetation analysis using standard field techniques <p>Geographical Skills:</p> <ul style="list-style-type: none"> • Consider different ways data can effectively be presented • Understand how and when to employ a Spearman Rank Correlation test • Understand how and when to employ a Spearman Rank Correlation test 	<p>All students will:</p> <ul style="list-style-type: none"> • Describe the aims and objectives of the investigation and outline hypotheses, which link them • Identify and be able to describe different soil characteristics, by using a range of standard field techniques • Identify any trends in data and relate to geographical theory and field data. <p>Most students will:</p> <ul style="list-style-type: none"> • Justify data collection techniques and describe sampling strategies employed during the investigation • Identify anomalous results in their data and be able to explain them. • Offer links between different variables to help explain the results of the investigation and draw conclusions • Carry out a Spearman Rank Correlation test to help accept/reject original hypotheses <p>Some students will:</p> <ul style="list-style-type: none"> • Justify sampling strategies employed • Compare different ways of presenting data, outlining benefits and drawbacks of these methods • Complete an evaluation of the investigation, outlining limitations of techniques and validity of conclusions; suggest ways to improve the investigation

Slope morphology and landforms

Learning Objectives	Learning Outcomes
<ul style="list-style-type: none"> • Understand and describe standard mapping techniques • Interpret the landscape evolution of an upland glaciated valley <p>Geographical Skills:</p> <ul style="list-style-type: none"> • Using standard techniques for ground-to-map interpretation • Working out appropriate scale for a map • Using observation to interpret landform origins 	<p>All students will:</p> <ul style="list-style-type: none"> • Collect primary data to produce a map, which describes either morphological or geomorphological features • Interpret landscape features that were created during the last glacial/deglacial period • Identify risks involved in mapping exercises and know how to mitigate against them <p>Most students will:</p> <ul style="list-style-type: none"> • Describe how to carry out techniques and justify appropriate use of each. • Make detailed interpretations of their map, using background geographical knowledge • Suggest ways in which each technique could be improved <p>Some students will:</p> <ul style="list-style-type: none"> • Describe limitations of each technique and suggest improvements • Suggest ways in which their own maps/observations could be improved

Fluvial Systems

Learning Objectives	Learning Outcomes
<ul style="list-style-type: none"> • Describe how a river changes with distance downstream and explain how river variables interrelate • Describe river landforms observed during the day and consider how they are formed • Describe how land-use may relate to drainage basin characteristics <p>Geographical skills</p> <ul style="list-style-type: none"> • Outline and justify the fieldwork techniques used to carry out a river investigation • Outline the key risks involved in a river study and how to manage those risks • Consider different ways river data can effectively be presented • Understand how and when to employ a Pearson Product test 	<p>All students will:</p> <ul style="list-style-type: none"> • Describe the aims and objectives of the investigation and outline hypotheses, which link them • Collect primary data to test hypotheses relating to downstream changes. • Identify landforms created by river processes • Pick out trends from their data that relate to learning objectives • Identifying risks involved in the investigation and ways to manage those risks <p>Most students will:</p> <ul style="list-style-type: none"> • Justify data collection techniques and describe sampling strategies employed during the investigation • Describe downstream changes related to stream order • Identify sampling sites using OS map and grid reference • Identify anomalous results in their data and be able to explain them • Offer links between different river variables to help explain the results of the investigation and draw conclusions • Carry out a Pearson Product test to help accept/reject original hypotheses, using their own field data <p>Some students will:</p> <ul style="list-style-type: none"> • Use OS extracts to help justify sampling strategies employed. Compare different ways of presenting data, outlining benefits and drawbacks of these methods • Compare different ways of presenting data, outlining the benefits and drawbacks of each • Complete an evaluation of the investigation, outlining limitations of techniques and validity of conclusions; suggest ways to improve the investigation

FSC KINDROGAN

Located in rural Perthshire, at the edge of the Cairngorms National Park FSC Kindrogan is 11 miles from Pitlochry's mainline train station and close to the A9. The Centre itself is set in wooded grounds on the banks of the River Ardle and lies within easy reach of some of the most inspiring landforms in the Scottish Highlands and a rich range of wildlife habitats.



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Kindrogan

Tel: 01250 870150

TO BOOK THIS PROGRAMME, SIMPLY:

1. Choose the time of the year you would like to attend
2. Check availability online or contact FSC Kindrogan

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The FSC prides itself on being flexible. If you can't find a programme to meet your exact requirements a course specifically tailored to meet your needs can be developed. To discuss this, contact the centre of your choice. Fees will depend on what time of year you would like to visit and your length of stay but will be more expensive than FSC programmes at peak periods.