

A2 WJEC Biology

Biodiversity and the Environment, 8days



This course will provide opportunities for students to gain a thorough understanding of the ecological content of the WJEC specification. The course will build on some of the ideas about variation, classification and biodiversity covered in AS Assessment Unit BY2 and provide comprehensive coverage of the ecological content from A2 Assessment Unit BY4 and BY5. Ecological principles will be applied to questions of real life interest such as the effect of human activity on the environment (e.g. species extinction, agricultural exploitation, eutrophication and climate change).

FSC

BRINGING
ENVIRONMENTAL
UNDERSTANDING TO ALL

Please visit

<http://www.field-studies-council.org/outdoorclassroom/biology/aqa/>
for alternative [biology fieldwork](#) courses covering [A-level WJEC biology fieldwork](#)

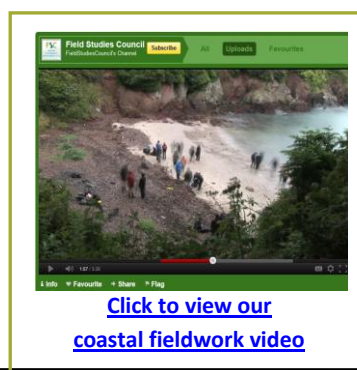
COURSE LENGTH

8 Days (7 nights with 19 teaching sessions)

Wednesday / Friday	Thursday / Saturday	Friday / Sunday	Saturday / Monday	Sunday / Tuesday	Monday / Wednesday	Tuesday / Thursday	Wednesday / Friday
Arrive for evening meal. Evening session	Morning, afternoon and evening sessions	Morning, afternoon and evening sessions	Morning, afternoon and evening sessions	Morning, afternoon and evening sessions	Morning, afternoon and evening sessions	Morning, afternoon and evening sessions	Depart after breakfast

COURSE CONTENT

Definitions and Concepts (revisited AS content in italics)	Sampling and Experimental Techniques	Data Analysis and Presentation Skills (revisited AS content in italics)	How Science Works (these areas will either be linked to fieldwork or discussion sessions)
<ul style="list-style-type: none"> • <i>Species concept</i> • <i>Biodiversity</i> • <i>Classification</i> • <i>Binomial system</i> • <i>Ecosystems, Habitat & Community</i> • <i>Trophic levels</i> • <i>Efficiency of energy transfer</i> • <i>Gross & Net production</i> • <i>Primary & secondary succession</i> • <i>Pioneers, sere & climax community</i> • <i>Population size</i> • <i>Factors affecting population growth e.g. competition, carrying capacity density dependent / independent factors)</i> 	<ul style="list-style-type: none"> • Appropriate sampling techniques • A simple quantitative treatment of population size 	<ul style="list-style-type: none"> • Pyramids of energy • Graphs showing population size • Range of appropriate statistical and graphical techniques 	<ul style="list-style-type: none"> • Conflicts between production & conservation (such as forest management & biodiversity) • Eutrophication & algal blooms • Effect of global warming & climate change on distribution of species • Issues surrounding energy release from biomass and biofuels • Effect of increased human pressure on environment • Need for sustainability • How political decision affected by scientific principles

**External Recognition of Quality**

All our centres have been awarded the Quality Badge by The Council for Learning Outside the Classroom. The badge is awarded to organisations that have demonstrated that they consistently deliver high quality teaching and learning experiences and manage risk effectively. This means that you will have to complete less paperwork when visiting our centres

LEARNING OUTCOMES/OBJECTIVES

Learning Objectives	Learning Outcomes
<ul style="list-style-type: none"> • Provide students with an understanding of Key Ecological Concepts • Provide students with experience of the ecological techniques and emphasise the justification and limitations of those techniques • Give opportunities for students to apply those skills in a variety of habitats including one terrestrial and one aquatic habitat • Show how skills and concepts can be transferred to other habitats and allow students to experience a range of experimental designs and establish the need for replication and controls • Explore a range of graphical and statistical techniques for the analysis of ecological data and make clear the links between experimental design and methods of analysis • Emphasise the justification and limitations of different techniques for the presentation and analysis of data • Give students increasing responsibility for the design of the sampling to be undertaken each day • Explore the synoptic links between ecological studies and other areas of the specification 	<p>By the end of the course we expect all students to:</p> <ul style="list-style-type: none"> • have gained an understanding of the appropriate terminology used in ecological questions • have demonstrated an ability to analyse and interpret ecological data using a variety of graphical and mathematical skills • be able to use discuss their findings in the context of standard ecological concepts and make synoptic links to other areas of their specification • be able to transfer their skills and knowledge to the study of new habitats and new ecological questions <p>We also hope that students will:</p> <ul style="list-style-type: none"> • have developed an understanding of, and respect for, living organisms in their natural habitats • be able to appreciate the rich biodiversity of life within all types of habitats in the UK. • explore how personal, social, moral and cultural issues can be put into a wider environmental context

Protecting fieldwork opportunities for everybody

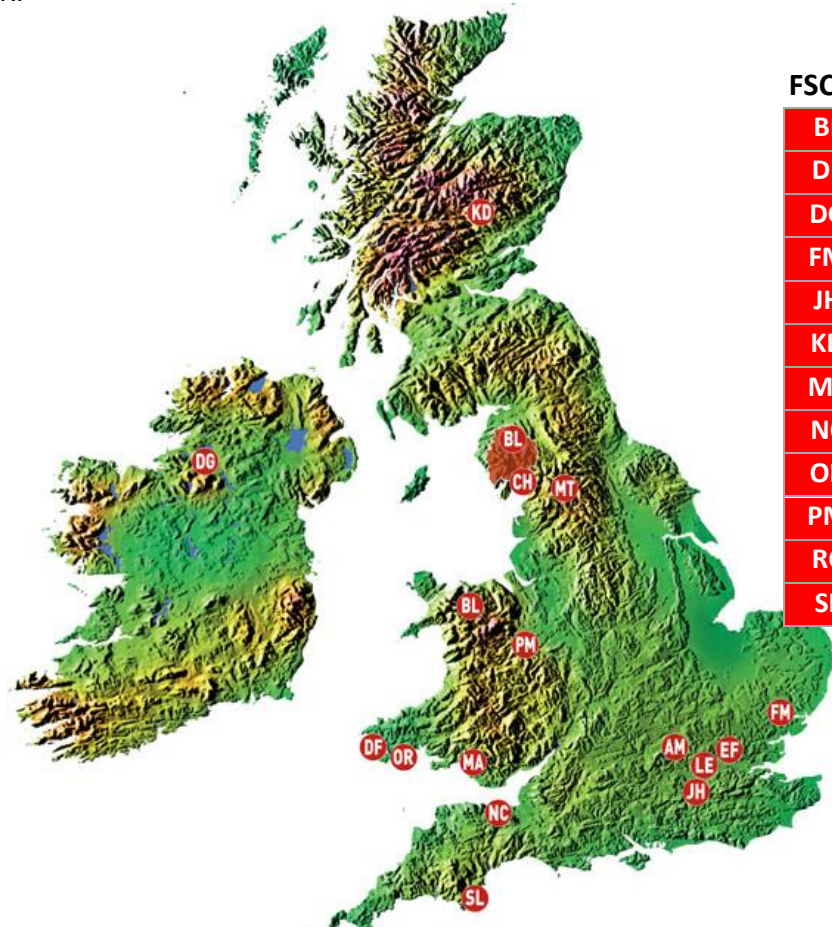
Growing pressures on outdoor learning has led the FSC to take on an important role; championing the rights and opportunities for people of all ages to experience the environment at first hand.

The FSC has lead in campaigns to reverse the continuing decline in fieldwork within secondary schools and to build opportunities for out-of-classroom learning.

As a registered charity, the FSC receives no statutory funding. It relies solely on fees charged for courses and membership. Therefore, by visiting an FSC Centre not only are you receiving a high quality educational experience for your students, you are also you are helping to protect fieldwork opportunities for everybody.

FSC CENTRES

This course is offered at our residential centres listed below, set in some of the most stunning locations in the UK.



FSC Centres that offer this course:

BL	Blencathra	Tel: 01768 779 601
DF	Dale Fort	Tel: 0845 330 7365
DG	Derrygonnelly	Tel: 028 686 41673
FM	Flatford Mill	Tel: 0845 330 7368
JH	Juniper Hall	Tel: 0845 458 3507
KD	Kindrogan	Tel: 01250 870 150
MT	Malham Tarn	Tel: 01729 830 331
NC	Nettlecombe	Tel: 01984 640 320
OR	Orielton	Tel: 0845 330 7372
PM	Preston Montford	Tel: 0845 330 7378
RC	Rhyd-y-creuau	Tel: 01690 710 494
SL	Slapton Ley	Tel: 01548 580 466

TO BOOK THIS COURSE, SIMPLY:

1. Choose the time of the year you would like to attend
2. Pick the centre/centres of interest
3. [Check availability online](#) or contact head office using the details at the bottom of the page or contact the centre of your choice

**Please note to book this course the minimum size of your group must be 12 students and 1 member of staff*

Please visit

<http://www.field-studies-council.org/outdoorclassroom/biology/WJEC/>

for alternative [biology fieldwork](#) courses covering [A-level WJEC biology fieldwork](#)

COURSE PRICES

The cost of this course is shown below. The fee varies depending on time of year, arrival and departure days/times and course content. The FSC prides itself on being flexible; the course content can be tailored to meet your needs. Alternatively, we can work with you to create a fully bespoke course to meet your exact requirements.

8 day timetable, 2012, prices from: Band A: £231 Band B: £268 Band C: £310 Band D: £357 Band E: £374
 8 day timetable, 2013, prices from: Band A: £231 Band B: £268 Band C: £310 Band D: £357 Band E: £374

Week Beginning	Band	Week Beginning	Band	Week Beginning	Band
03 September 2012	D	25 February 2013	D	19 August 2013	B
10 September 2012	D	04 March 2013	D	26 August 2013	B
17 September 2012	D	11 March 2013	D	2 September 2013	C
24 September 2012	D	18 March 2013	D	9 September 2013	D
01 October 2012	E	25 March 2013	D	16 September 2013	D
08 October 2012	E	01 April 2013	B	23 September 2013	D
15 October 2012	D	08 April 2013	B	30 September 2013	E
22 October 2012	D	15 April 2013	D	7 October 2013	E
29 October 2012	B	22 April 2013	C	14 October 2013	D
05 November 2012	D	29 April 2013	C	21 October 2013	C
12 November 2012	D	06 May 2013	C	28 October 2013	B
19 November 2012	C	13 May 2013	C	4 November 2013	D
26 November 2012	C	20 May 2013	C	11 November 2013	D
03 December 2012	A	27 May 2013	B	18 November 2013	C
10 December 2012	A	03 June 2013	D	25 November 2013	C
17 December 2012	A	10 June 2013	E	2 December 2013	A
24 December 2012	A	17 June 2013	E	9 December 2013	A
31 December 2012	A	24 June 2013	E	16 December 2013	A
07 January 2013	A	01 July 2013	E	23 December 2013	A
14 January 2013	A	08 July 2013	E	30 December 2013	A
21 January 2013	B	15 July 2013	C		
28 January 2013	C	22 July 2013	C		
04 February 2013	C	29 July 2013	A		
11 February 2013	C	5 August 2013	A		
18 February 2013	B	12 August 2013	A		

FSC courses are classed as educational by HMRC and are therefore VAT exempt; **we don't charge you VAT**. This can save you time and effort paying it and then attempting to claim it back, if you are eligible to do so.

Included within the course price:

- Expert tuition by fully trained staff
- Rigorous and proven health and safety procedures including 24 hour emergency cover
- Access to risk assessments
- Full board (residential visits)
- Specialist equipment and exclusive access to specially developed resources
- Free places for visiting staff in a ratio of 1 to 12 students
- E-mail support before and after the course (on request)
- Personal and travel insurance

Please remember travel to the field centre and to fieldwork sites is not included in the course fee.

FSC offers a number of courses covering [Science field trips](#), [biology fieldwork](#), [AS / A level biology fieldwork](#) as well as [geography field trips](#) and [geography fieldwork](#). Please visit our website for further information.