



UK CENTRE FOR

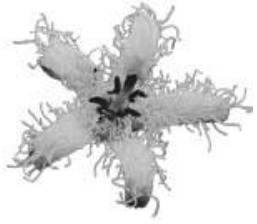
bioscience



UK Centre for Bioscience

Supporting teaching in higher
education to improve student
learning across the biosciences

Supporting teaching in higher education to improve student learning across the Biosciences



Subject Centres and the Higher Education Academy

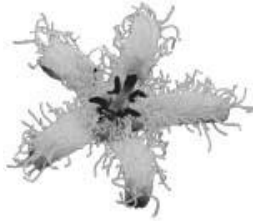
Supporting the Student Learning Experience

24 Subject Centres

- Bioscience
- Physical Sciences
- Medicine, Dentistry and Veterinary Medicine
- Geography Earth and Environmental Sciences
- Health Sciences and Practice

Based in universities across the UK

Higher Education Academy



UK Centre for Bioscience

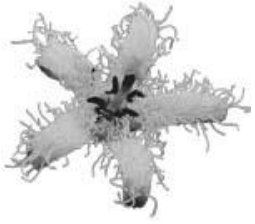
- Based at the University of Leeds
- 12 staff – about half full time
- Cover 26 Bioscience disciplines



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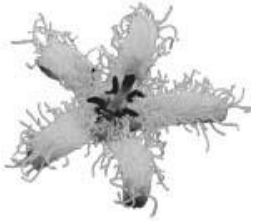
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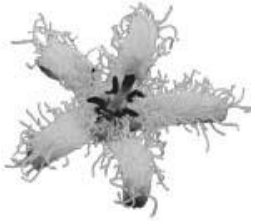
Post-Its!

- Write down one (or more) resources you've found useful in your teaching
- Turn to your neighbour – what is your resource and why was it useful
- Any volunteers to give some very brief feedback
- Keep your post-its! I'll collect them at the end



Supporting your teaching

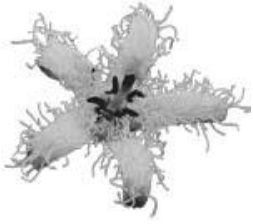
- Website
- Resources
 - ImageBank
 - To use in tutorials
 - For your students
- Student Award
- Networking and contacts



Website

- New lecturers
- Postgraduate Teachers and Demonstrators
- Practical work
- Fieldwork
- Disability and Accessible Curricula
- Ethics and Bioethics

www.bioscience.heacademy.ac.uk



Resources

- New Lecturers pack
- Short Guides
- Learning Guides
- Bulletin
- Assessment Briefing
- Teaching Guides



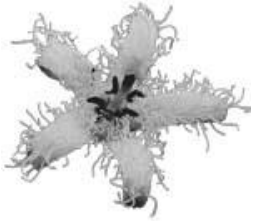
Short Guide

Postgraduate Demonstrators and Teachers

During your time as a postgraduate you may get the opportunity to demonstrate to, or teach, undergraduate students. Demonstrating or teaching can help you to fill in some of the gaps in your own knowledge, better understand your subject through teaching it, give you a break from your research, add something different to your CV and give you the chance to earn some extra cash. This guide focuses on demonstrating in practical sessions, but also briefly considers tutorials, lectures and demonstrating on field trips.

Top tips

- Think back to the teaching and support you received as an undergraduate and identify good and poor practice;
- Attend any and all briefing sessions or meetings before the practical;
- Talk to other demonstrators about their experiences;
- Ask for feedback on your demonstrating and reflect on how you could improve;
- Encourage questions and make sure students are aware they can ask for further explanations;
- Arrive early for any practicals and teaching sessions;
- Meet the deadlines for marking and returning work to students;
- If you have the opportunity, go on a training course, perhaps with your institution's graduate or staff training unit, before you start;
- Read up on the topic before you go to the practical and make sure you can explain the relevance and theory behind any practical work;
- Try to distribute your time equally between groups or individual students;
- Be confident enough to say that you don't know the answer to a student's question, but you can point them towards where they can find out; and
- Have a look through the Centre for Bioscience New Lecturers Resource Folder, it has hints and tips on tutorials, practicals, fieldtrips and lectures for new teaching staff.

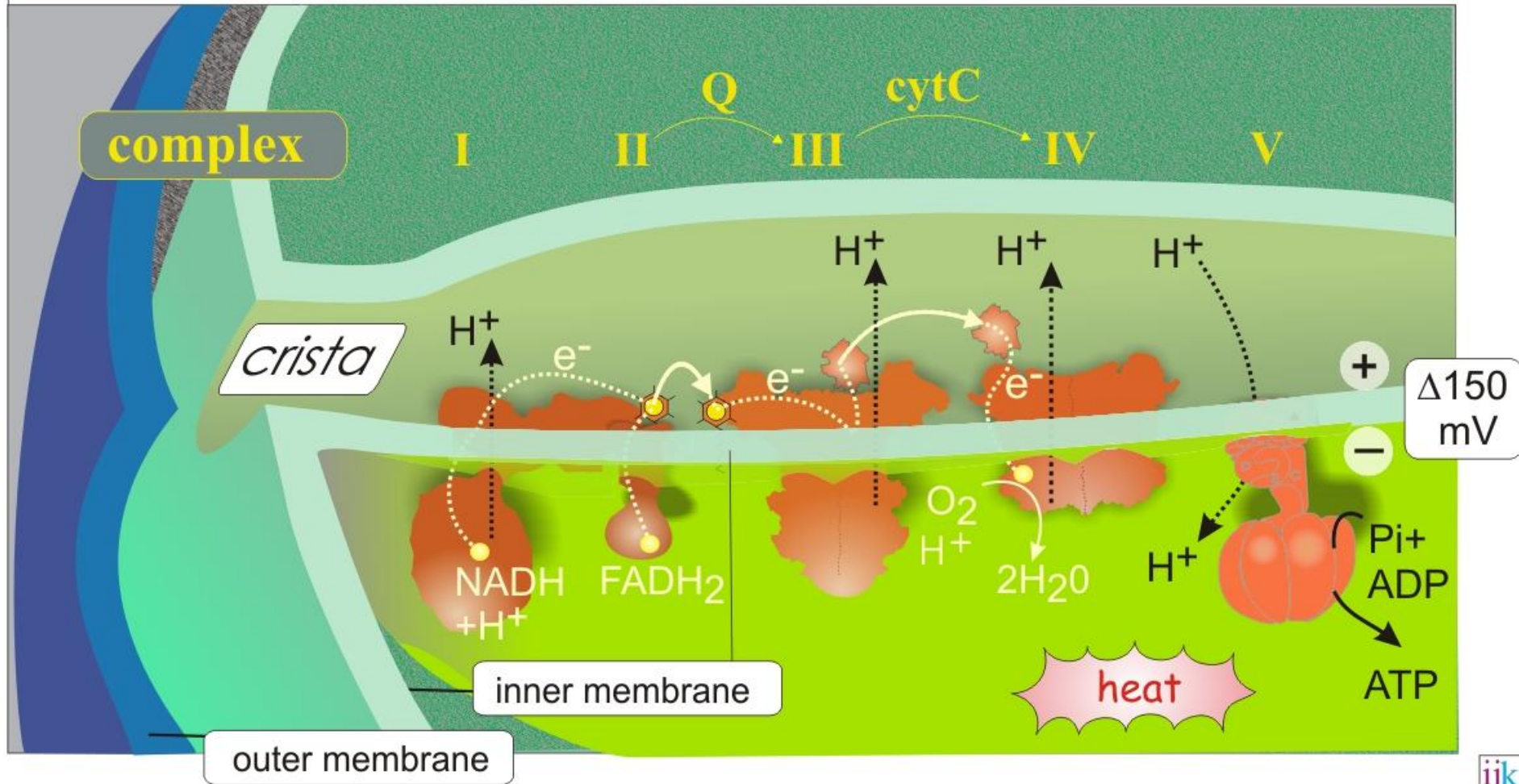


ImageBank

Online database of images for learning and teaching

- Illustrate handouts
- Practical schedules
- Resource to suggest to your students
- Use in your own dissertations, thesis reports...

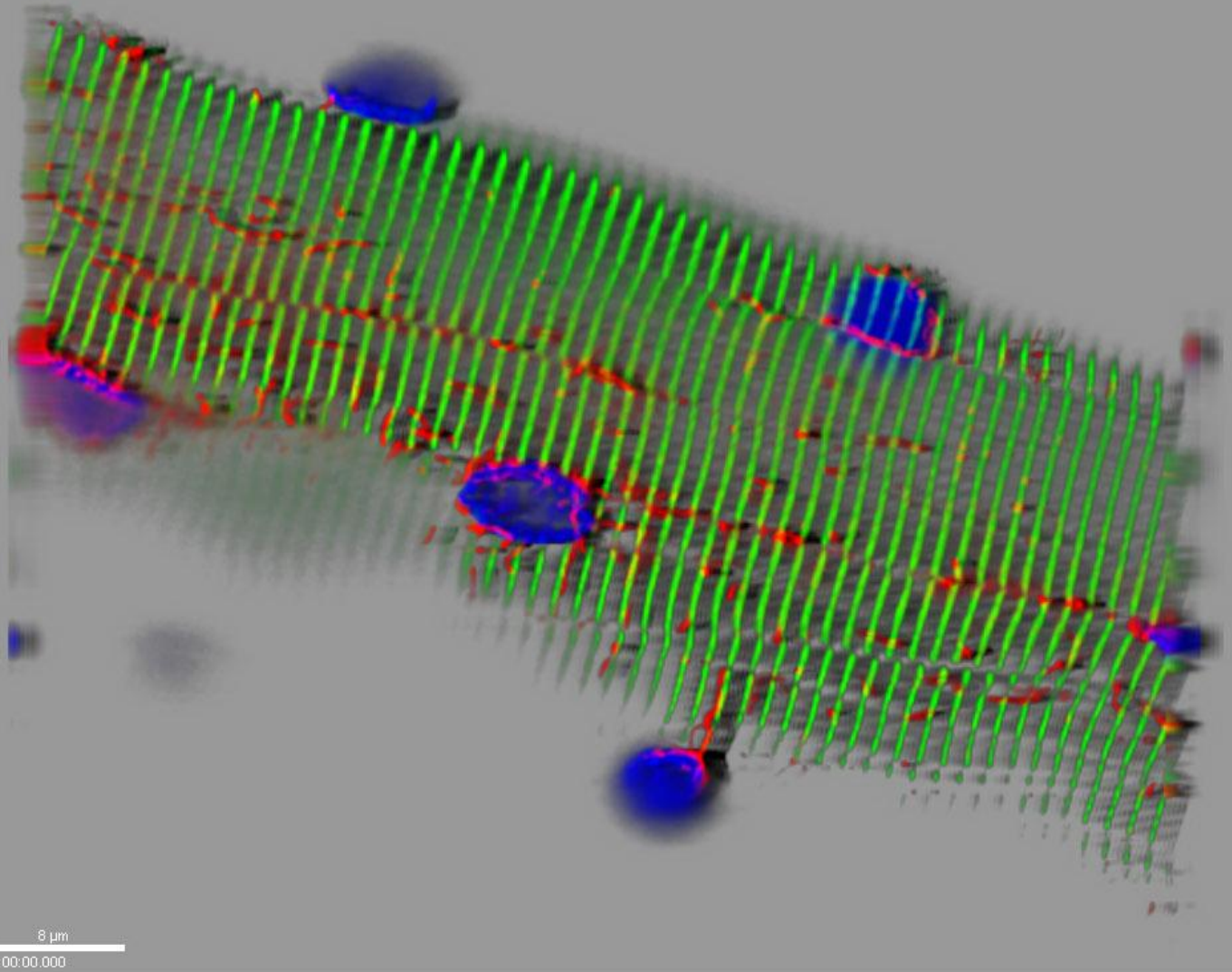
components of the mitochondrial electron transport chain





Muscle Stripes

The white stripes are the repeating elements (sarcomeres) of the muscle fibre. Nuclei are in blue, and microtubules are in yellow/green. The microtubules ramify throughout the muscle, acting as tracks for molecular motors to transport cargo from A to B. the image was taken on an Olympus microscope using Softworx acquisition software. the image was deconvolved, and 4 sequential Z-sections were combined to make a maximum intensity projection using Imaris. the image was then rotated and cropped using Adobe Photoshop CS3. Scale Bar (white) is 10 microns.

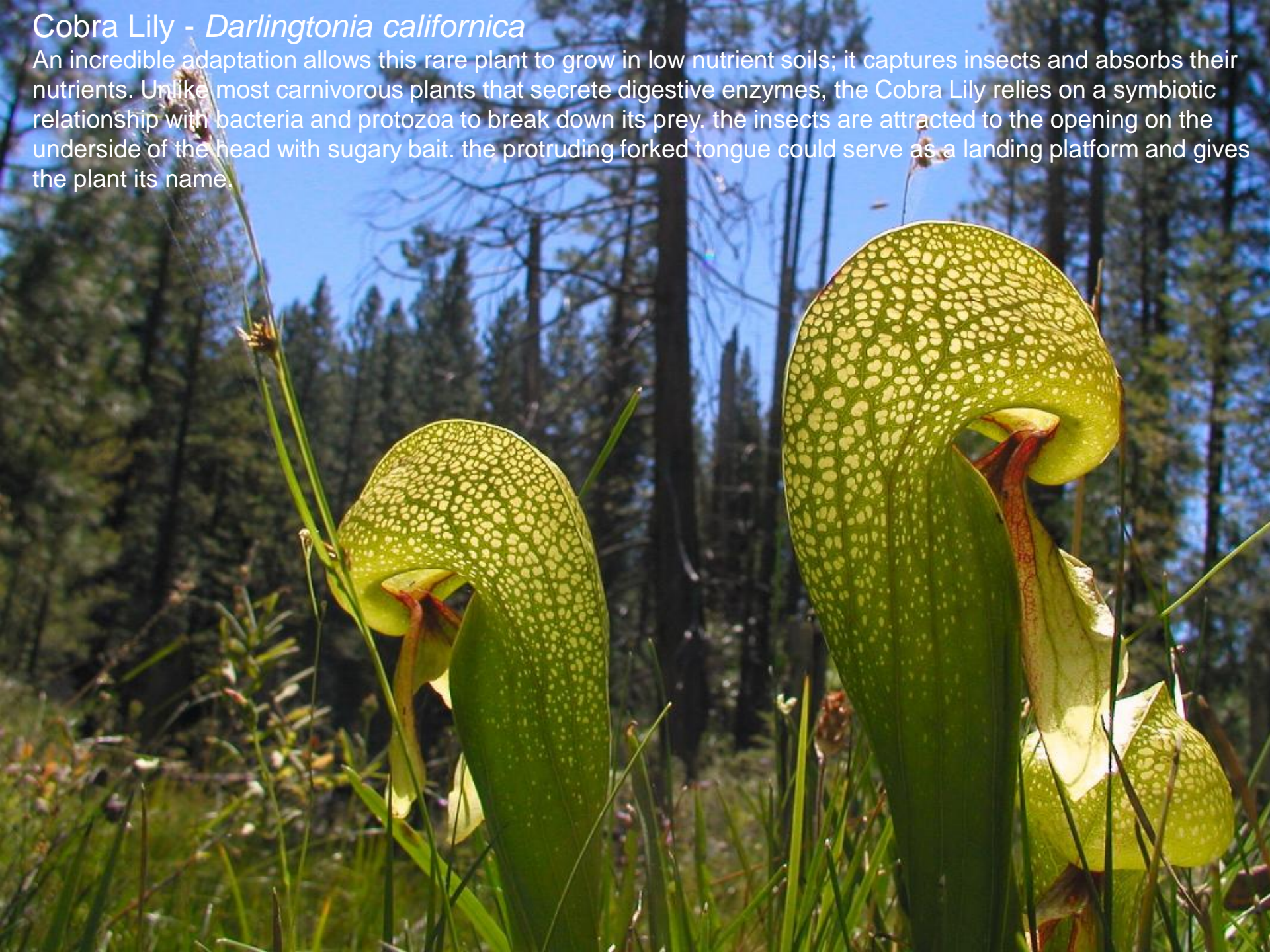


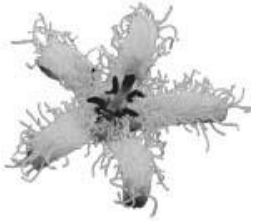
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Cobra Lily - *Darlingtonia californica*

An incredible adaptation allows this rare plant to grow in low nutrient soils; it captures insects and absorbs their nutrients. Unlike most carnivorous plants that secrete digestive enzymes, the Cobra Lily relies on a symbiotic relationship with bacteria and protozoa to break down its prey. The insects are attracted to the opening on the underside of the head with sugary bait. The protruding forked tongue could serve as a landing platform and gives the plant its name.





Resources to use in tutorials

- Employability materials
- Bioethics Briefings
- Student Award





Resources for your students

- Employability materials
- Short Guides
- Student web pages
- Links to external projects and resources

What does your CV say about you?

This annotated CV aims to give you some hints and tips on setting out your CV and selling yourself to potential employers. CVs are very personal things. What you include, what you exclude, how you present them and how you choose to evidence what you put in tell an employer something about you.

CVs can be written in two basically different ways:

1. using a "skills" approach (i.e. evidencing the skills and aptitudes you have and showing how you acquired or have used them); or

Employability Profile: Agriculture, Forestry, Agricultural Sciences, Food Sciences and Consumer Sciences

What is employability?
Employability can be defined as: "a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations". You may also hear employability skills referred to as transferable skills.

What is an employability profile?
An employability profile highlights the skills and qualities employers value and that you would be likely to gain during your degree.

Student Short Guide Making the Most of Practical Work

Practical and fieldwork are important parts of many bioscience courses, giving you the opportunity to put into practice all the theory you've been learning, experience the excitement of science and obtain an insight into what it's like being a researcher. This guide is full of hints and tips from bioscience students on how you can make the most of practical work.

Top tips

- Enjoy practical work – it's a fantastic opportunity to put into practice all the theory you have learned;
- Read the practical or fieldwork schedule before you go...
- ... And research anything you aren't sure about
- Try to link your practical work or fieldwork activities to what you're hearing about and discussing in lectures and tutorials.
- Don't panic – you won't be the only one who doesn't understand what you're doing at the start.
- Make notes about what you did and the results you got...
- ... And keep these notes safe!
- Learn the essential techniques (such as pipetting) and how to do them well.
- Don't be afraid to ask for help, that's what the demonstrators and lecturers are there for.
- Pay attention to and follow any safety instructions.
- Don't rush, you might miss things out...
- ... Likewise don't spend all your time chatting to your lab partner so that you have to cram everything in to the last hour.
- Give yourself plenty of time to write up your lab book or report; and
- Turn up, it sounds obvious but if you don't go, you don't benefit.

Employability Profile: Agriculture, Forestry, Agricultural Sciences, Food Sciences and Consumer Sciences

to tailor your CV or an application form to a subject-specific and transferable skills you your degree.

Agriculture, Forestry, Agricultural Science, Food Science Free?
These industries, applied biology, rural studies and sciences, are practically orientated, broad-based subjects and relate to physics and chemistry through biology to the social sciences, and consumer behaviour.

Elementary physical, biological, economic and sociological in the countryside and consider the social and environmental systems. Some degrees will focus on the management of plants and animals kept for their aesthetic abilities or the recreational sciences of plants, animals, micro organisms and the use of natural resources, including the production or manufacture of horticultural products and the management of productive land.

Understanding and application of a range of sciences to security, quality and safety.

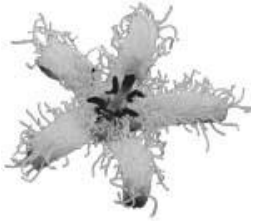
economic and sociological principles to the sustainable management of natural resources, including the production or manufacture of horticultural products and the management of productive land.

Interdisciplinary subjects which seek to understand the relationship between the economic, technical, social and environmental forces that influence the production and consumption of goods and services.

What is a degree in this area?
This subject-specific and more generic employability skills. Discipline-specific facts and principles as well as an awareness of the nature of knowledge within your subject area and the nature of information and the competing and alternative

Student Short Guide

The bioscience network



Student Award

- **“The pluses and minuses of maths on my bioscience course”**
- Open to both U/G and P/G
- Win up to £300
- U/G and P/G prizes this year
- Interested in being on the marking panel?

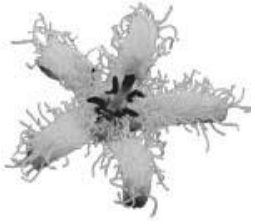




You are not alone!

- Enquiries service
- Events
- Representatives
- Join the network





Any questions?

- Katherine – k.a.clark@leeds.ac.uk
- Centre – heabioscience@leeds.ac.uk
- Or phone us on 0113 343 3001

Event report:

www.bioscience.heacademy.ac.uk/events/reports.aspx