



4 | THE PASSPORT SCHEME

- BRIDGING THE GAP BETWEEN SCHOOL AND UNIVERSITY

The Crichton Campus of the University of Glasgow is part of a multi-institutional campus located in Dumfries in the southwest corner of Scotland. In common with the other Institutions on the campus (University of Paisley and Bell College) the majority of students are drawn from the local area (Dumfries & Galloway and Cumbria). As part of the process of building links to the secondary sector, the Crichton University Scholarship Agreement has been established whereby students from regional secondary schools are entitled to an annual scholarship if they attend the Crichton Campus.

Other initiatives have also been undertaken to build close links with the secondary sector, of which the PASSport scheme is a notable example. The standard university entry qualification within the Scottish system remains the Higher, gained after the fifth year of secondary schooling. This means that many pupils can gain university entrance at the age of 16. Even if qualified at that age, the majority intending to proceed to higher education opt to return to school for a further year (primarily due to maturity issues), to pursue Advanced Highers and/or other Highers.

Demotivation has been identified in schools as a problem in the sixth year. For those pupils who receive unconditional offers in the course of their sixth year on the basis of their performance in fifth year, the incentive to achieve good grades in their sixth year is clearly diminished. In practice this means that they often perform well below their capacity, or indeed leave school. Both of these impact on league tables and the funding for the school. As Julian Park discussed in his recent article (Park, 2006), student motivation is also an issue in HE and John Green in his recent reports to the Centre (Green 2005a, 2005b) highlights some of the Scottish-based projects encouraging students to take bioscience.

The Crichton Campus was approached by the head teacher of a

well-performing school to explore the development of a special programme that would create links between the school and the Campus. As well as addressing the issues identified above, the discussions also focussed on the increasing difficulties encountered even by well-qualified pupils in making the transition from secondary to higher education.

A pilot of 11 pupils, drawn from one rural and one urban school, was initiated in academic session 2004/5. The pupils enrolled on one of a variety of courses, ranging from Contemporary Art to Environmental Studies. The pupils were fully matriculated students of the University and had access to all facilities and were, to all intents and purposes, indistinguishable from any other student. Tutors and lecturers did not know their status and to rule out any bias in the pilot programme no arrangements were made for special treatment of these pupils.

Pupils electing to take Environmental Studies have a choice of three courses at Level 1:

- 1 Our Changing Environment:** covers topics such as global warming, acid rain, ozone depletion, biodiversity loss and outlines the state of scientific knowledge in these fields.
- 2 Environment and Sustainability:** outlines ethical, socio-economic and technological considerations integral to environmental sustainability. Lab and field work – wind farm case study; one week's research on their personal water consumption; field classes to investigate problems with implementing conservation measures (in conjunction with the Forestry Commission and Scottish Natural Heritage); measure and present their ecological footprint.
- 3 Investigating the Environment:** looks at scientific principles and methods by which scientific investigation occurs.

Lab and field work – SEPA field class on river flooding; saltmarsh radioactivity lab; mapping the global



Investigating the effect of acid rain on plant growth

climate lab; Experimental Design Project where students investigate an hypothesis.

One difficulty that arose from the pilot study was conflict between the demands of the university course and the demands of the programmes being pursued within the school context. In particular, since the pilot was running in the second semester, there were problems with the timing of examinations. Scottish national school examinations are held in May at roughly the same time as the examinations for the university courses. The resultant pressures meant that one pupil withdrew from the programme. Apart from that the scheme proved popular and was successful with the other ten pupils all gaining 20 credits under the Scottish Credit and Accumulation Transfer Scheme.

In the light of the difficulty identified above, the timing of the programme was changed for academic session 2005/6 and the scheme was opened up to all regional schools. Many schools joined the scheme and a liaison team was established embracing schools, university and the Local Education Authority. The financial support of the Local Authority is perhaps a contributing factor to the positive achievements of the programme. Other universities and colleges wishing to initiate something similar may need to consider this option or that of creating a bursary to fund the course fees. The success of the scheme in the first semester meant that a number of pupils elected to return in the second semester despite the known difficulties!

Feedback from a current pupil stated "Being a sixth year student I found the PASSport scheme very helpful. University life is really different from your school years and as you are coming to the end of school life it can become quite daunting. The PASSport scheme enabled me to get a taste of university life and helped me take on more responsibilities. You have to take it upon yourself to do the work because nobody is going to chase you for it . . . One of the best things, I felt, was that you were treated as a university student by both the teaching staff and the other students. You do not get a lighter workload because you are still at school, you have to put in as much effort and work as the other students."

The scheme is only in its second year of operation, but already the signs are of expanding subscription in the coming session. Indeed, one of the pilot schools is in the process of shaping its timetable around that of the university to allow maximum pupil participation!

REFERENCES

Green J. (2005a) *Scottish Learning and Teaching Issues*, Six-monthly report, Spring 2005. Available at <ftp://www.bioscience.heacademy.ac.uk/cc/sixmonthreportapril2005green.doc> Accessed 18/05/06

Green J. (2005b) *Scottish Learning and Teaching Issues*, Annual report 2006. Available at <ftp://www.bioscience.heacademy.ac.uk/cc/GreenNov05.pdf> Accessed 18/05/06

Park, J (2006). *Differentiating in the HE classroom: no easy answers?* Centre for Bioscience Bulletin No. 17. Available at <ftp://www.bioscience.heacademy.ac.uk/newsletters/bulletin17.pdf> Accessed 18/05/06

For information on the Crichton University Scholarship Agreement: <http://www.cc.gla.ac.uk/layer1/cusa.htm>

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BIOSCIENCE IN ACTION

PHOTOGRAPHIC COMPETITION 2006

A chance to win £500, and an opportunity for your images to be included in ImageBank. ImageBank is an online collection of bioscience images provided by the Centre for Bioscience free and copyright cleared for use in learning and teaching. All major bioscience subject areas are covered and there are images of representatives of most taxonomic groups. From algae to elephants, from laboratory equipment to agricultural techniques – all these and much more are available for you to download from ImageBank.

We now have almost 5000 bioscience images, in ImageBank, with new submissions being added all the time. We recognise the importance of our collection being up-to-date and covering a wide range of topics, so we are running a photographic competition which reflects current themes in bioscience. All images entered for the competition will be considered for inclusion in ImageBank, so why not enter our competition and help us enhance our image collection?

The theme of the ImageBank 2006 Photographic Competition is: **Bioscience in Action**. We are asking entrants to the competition for high

quality images which illustrate an aspect of bioscience in which they are involved. The images may be of laboratory or field work; they may show methods or processes used for collection of data; or the relationship between an organism and its habitat. Or you can create an image showing aspects of learning and teaching bioscience. In fact you can enter any image which you consider captures the excitement and interest of **Bioscience in Action**.

We are offering some seriously tempting prizes – a first prize of £500, and second and third prizes of £200 and £100, so it's well worth having a go. In addition all images entered in the competition will be considered for inclusion in ImageBank, so this is an opportunity to share your images with the bioscience community.

The competition is open to anyone with an interest in bioscience. You can find further details, the competition rules, and an entry form on the ImageBank web site at:

<http://www.bioscience.heacademy.ac.uk/imagebank/>

So why not take this opportunity to share your interest in bioscience with others, and perhaps win one of our prizes?

BIOSCIENCE EDUCATION E-JOURNAL VOLUME 7

The articles listed below are available on our website at <http://www.bioscience.heacademy.ac.uk/journal/vol7/>

- The findings of an assessment audit: an NTFS project report
- Blues for the lecture theatre – the pharmacology songbook
- Written feedback for students: too much, too detailed or too incomprehensible to be effective?
- Why am I here? Student choice in the biosciences
- Correlates between bioscience students' experiences of higher education and the neurobiology of learning
- Educational modules in tissue engineering based on the "how people learn" framework
- Using online microassessments to drive student learning
- Never again shout, "that WOULD have been useful for my teaching!" at the TV

We also invite submissions for volume 8. See the website for further information, layout and submission guidelines.

<http://www.bioscience.heacademy.ac.uk/journal/>