8. Methods of Teaching and Learning

The variety of teaching and learning methods which is used within a course is an important ingredient in creating a course with interest to students. A course with a large proportion of its teaching taking place in lectures will need to have a high level of intrinsic interest to students to keep them engaged. Over the past few years, a wide range of different teaching and learning methods have been introduced and tested, often with the aim of developing skills which more didactic methods are poorly adapted to do. There is a substantial literature on these methods and on how best to use them.

It is not possible here to provide great detail on every possible teaching and learning method, so instead we have focused on some of the issues which could be considered by course teams when choosing the components of their course. A useful document to refer to is the *Guidelines for Promoting Effective Learning*, produced by the Centre for Research on Learning and Instruction and also available in the TLA Centre. Further sources are suggested in *section 8.8*.

8.1 LECTURES

Fifty-minute lectures remain the core teaching method for most undergraduate courses. Their role is best suited to providing an overview of the subject matter and stimulating interest in it, rather than disseminating facts. Lecturing to large classes is a skill which not all staff have acquired and some are not comfortable in this role, and so, where possible, a course organiser is advised to try to spread the lecturing load so as to favour those staff with best skill at it, although freedom of action in this respect is often limited! All students appreciate good quality lectures, and the key ingredients are:

- clear objectives (these can be put in the course handbook, with the lecture summaries, to avoid provision of them being forgotten by individual lecturers);

- clear overhead acetates or slides;

- a paced delivery (the larger the class and/or the more difficult the material the slower this should be);

- appropriate handouts which provide students with complex diagrams or difficult or critical text. This should not be viewed as spoon feeding. It is part of the process of ensuring that students take away the important elements from a lecture, irrespective of how well the lecture was delivered on the day. Good handouts also help to avoid the communication difficulties which can arise in any lecture where large numbers of students are present.

As class enrolments have risen and lecture theatres are used continuously, ease of access by students to the lecturer at the end of a lecture has been reduced. Providing agreed times and places, as soon as possible thereafter, when they can get questions answered is becoming an important issue.

A more radical approach to the problems of the large 'performance' lecture is to consider the extent to which some lectures could be removed entirely and replaced by structured exercises (i.e. resource-based learning). To some degree, those students who do not attend lectures follow this path anyway!

8.2 TUTORIALS AND SEMINARS

After the lecture, this is probably the next most widely used teaching method. The distinction between what is a tutorial and what is a seminar is woolly - to some it depends upon size (i.e. 'a 20 person group cannot be a tutorial as it is too big and is therefore a seminar') whereas to others the seminar has a different structure (speaker + audience) and different objectives.

This last point - objectives - is certainly the most important issue, and it is probably here that

most confusion exists in students' minds ('what are tutorials for?'), and sometimes in tutors' minds too. Clarity of objectives is more important for tutorials than for lectures, in that there is general agreement and expectations for lectures whereas there is certainly greater divergence for tutorials.

Much tutorial work is carried out by part-time staff, especially for courses in the first two years, and they too need to be clear about what they are trying to achieve with their students (*see section 4.4*). When asking students about tutorials, the paradoxical finding that they complain about them but ask for more/more frequent tutorials is perhaps closely related to their perception of their need for small group support but lack of clarity about what they should be getting out of what is provided. Making explicit what students should get out of tutorials can be quite a taxing exercise for the course organiser.

A new addition to the tutorial format (at least for most students and staff) is that of electronic tutorials via email, sometimes managed in a WWW forum such as HyperNews. Although rather few courses outside those which are traditionally computer-oriented have experimented with these methods, they hold out promise for those courses where students are difficult to bring together or to enable exchanges between face-to-face sessions.

The active nature of the tutorial/seminar makes it the main source for students to acquire some of the 'personal transferable skills', e.g. in presentation and group work.

8.3 LABORATORY AND PRACTICAL CLASSES

For science subjects, laboratory (lab) work is an essential ingredient of the course and some component of this is generally preserved, even though the amount may fall. In addition to the experience of lab work, students often derive a lot of their contact with staff in the lab setting, and compensation for this may be needed if lab time is significantly reduced.

High quality lab work is expensive to provide, and it is important that we are sure that students do indeed gain all that they might from it, especially as the number of students present may have increased, more part-time

demonstrators are used, and the frills have been trimmed to cut costs. The balance between fewer but better labs and more but simpler is not always easy to find, but is an important consideration.

8.4 OTHER TEACHING METHODS

Other methods that may be considered are numerous, including:

- workbooks, diaries, and lab notebooks;
- computer-based methods (see below);
- fieldwork;
- learning in hospital wards and clinics (medical and veterinary);
- independent learning tasks;
- essays, dissertations and projects;
- library searches;
- portfolios;
- posters;
- videos.

Judicious use of them gives students the chance to use a variety of learning techniques so that each gets one or more which suits them best. If you find a possible method but are unsure how best to introduce it to your course, search out someone who has used it and pick their brains. You will probably find that TLA Centre can point you to such people, even if they may not be in the University of Edinburgh.

8.5 STUDENTS WITH DISABILITIES

The University has growing numbers of students with disabilities (e.g. dyslexia) who may present particular challenges to courses with large numbers of students. For example, a profoundly deaf student may be able to follow a lecture with the help of a sign language interpreter, but will not be able to take notes at the same time. A blind student may need special help with practical sessions.

It is not possible to give detailed general advice on making the variety of teaching and learning methods described in this manual accessible to disabled students. However, the kind of support which they are likely to find helpful - e.g. provision of good handouts - often benefit all students. Students with disabilities are students first and foremost, and in many cases

a little thought and ingenuity on the part of lecturing staff is all that is required in order to allow them full benefit from their classes. The student will often be the best judge of what is needed; at other times the Disability Co-ordinator will be happy to liaise with staff (Pat Butson, Disability Co-ordinator: 650 6828; Pat.Butson@ed) (*see also chapter 11*).

8.6 COMPUTER SUPPORTED LEARNING

Just as it will be the course organiser's responsibility, in consultation with colleagues contributing to the course, to co-ordinate the availability of resources in the Library (books and reprints in the short-term loan collection, for example), all other aspects of resource-based learning will require forward planning with which the course organiser will have to be involved.

Various learning technologies (such as computer and multi-media resources) are increasingly being used in support of the learning process, presenting new challenges and opportunities for staff and students. A major resource being used more frequently is the World Wide Web (WWW). An example of its use in presenting information about course content is given in *Case Study 1* at the end of this chapter.

Wholesale importation of computer-based learning (CBL) activities across the curriculum is unlikely to be a wise or desirable move for any course. CBL enthusiasts have been predicting significant gains in quality and efficiency of the teaching and learning process for many years, but the realities have, as yet, been less clear cut. On the other hand, computer-based approaches in education have been subjected to more demanding criteria of evaluation than the more traditional approaches have ever had to face. One of the real benefits of the recent interest in new learning technologies has been the reassessment of our more familiar approaches, which has in itself been useful.

There are undoubtedly areas of the curriculum, however, in which the appropriate and targeted use of learning technologies will be of considerable importance, affording students the opportunity to engage with materials and resources which would otherwise be impossible. In particular, the confluence of computer and communication technologies suggest exciting possibilities for the use of computer-mediated communication (CMC), in the form of electronic mail or computer conferencing systems, in support of tutorial and group work. While students are facing increasing financial pressures, with the implication that many are functionally in part-time education, the asynchronous communications with teachers and peers which CMC potentially offers can ease conflict between employment and study.

Many subjects, from Fine Art to Neuroanatomy, will benefit from the possibility of networked access to high quality images which may be in short supply, if not completely inaccessible, in the printed form. Computer simulations of practical exercises can allow us to address some of the problems inherent in teaching large classes, provide access to experimental domains which would not otherwise be possible for reasons of cost or personal safety, and circumvent many of the ethical difficulties associated with some areas of research.

Many organisations and agencies exist which can provide help to the teacher or course organiser wishing to become involved with the use of IT in the curriculum. Some possible points of contact are suggested below.

8.7 USEFUL CONTACT ADDRESSES FOR TECHNOLOGY IN TEACHING AND LEARNING

The Computers in Teaching Initiative Support Service (CTISS), principally through its various academic subject centres, provides support with the implementation of learning technologies across higher education institutions within the UK. Activities of the various centres differ to some extent, but most run workshops on subject-specific and generic aspects of IT use in teaching, publish a periodic journal or newsletter, and maintain a collection of resource materials in their particular subject domain.

CTISS also publishes, twice a year, the major international journal A*ctive Learning*, which is free to academic staff in all UK higher education institutions. To subscribe, request a subscription form from CTISS through the contact routes listed below. The CTI Support Service can be contacted at :

Computers in Teaching Support Service,
University of Oxford,
13 Banbury Road,
Oxford OX2 6NN

Telephone :0186 527 3273
Fax :   0186 527 3275
Email :   ctiss@oucs.ox.ac.uk
WWW :   http://info.ox.ac.uk/cti/

The Teaching and Learning Technology Programme (TLTP) is a government funded initiative (launched by the then University Funding Council in February 1992) to produce quality computer-based learning resources for higher education. Many projects have now come to fruition, and the software produced is available to UK higher education institutions for little more than the cost of the media, handling and postage. Two catalogues exist listing the products of TLTP. Copies of these (which cost £7.50 to UK higher education institutions), along with further information about the programme, can be obtained from :

TLTP Co-ordinator,
Northavon House,
Coldharbour Lane,
Bristol BS16 1QD

Telephone :0117 931 7454
Fax :   0117 931 7173
Email :   tltp@hefce.ac.uk
WWW :   http://www.icbl.hw.ac.uk/tltp

The Information Technology Training Initiative (ITTI) was another government funded programme directed towards the development of materials for the support of generic IT skills. Information on the materials which are now available can be obtained by contacting :

Mrs Jean Burgan,
UCoSDA,
Ingram House, 65 Wilkinson Street,
Sheffield S10 2GJ

Telephone :0114 2725248
Fax :   0114 272 8705
Email :   j.burgan@sheffield.ac.uk
WWW http://www.icbl.hw.ac.uk/ITTI/itti.html

The Association for Learning Technology (ALT) is an important organisation for the promotion of IT in teaching and learning in the UK. The University is a corporate member of ALT, with a seat on its Council. ALT publishes a newsletter both in paper (Alt-N) and electronic form on the Web (Alt-E) and a refereed journal of papers on various aspects of educational technology (Alt-J). PC users will begin to see the theme in the naming of these publications! ALT also holds an annual conference (Alt-C) and provides organisational support for numerous small workshops, either under the aegis of the Association itself, or in collaboration with other relevant organisations. The Association can be contacted through :

Rhonda Riachi,
ALT Programmes Manager,
University of Oxford,
13 Banbury Road,
Oxford OX2 6NN

Telephone :0117 931 7454
Fax :   0117 931 7173
Email :   tltp@hefce.ac.uk
WWW : http://www.csv.warwick.ac.uk/atl-E/

The Learning Technology Dissemination Initiative (LTDI) was established in Scotland in 1994 by the Scottish Higher Education Funding Council (SHEFC) to encourage wider dissemination of the various products of, and experience of good practice gathered through, earlier initiatives like CTI and TLTP. LTDI offers advice and support to the higher education community in Scotland with implementations of learning technologies through the organisation of workshops (both subject specific and generic) and by direct consultations with staff. LTDI holds a resource collection of computer-based learning materials and publishes a regularly updated *Information Directory* which is an excellent source for anyone wishing to become more involved with the use of computers in teaching and learning. LTDI can be contacted at :

Learning Technology Dissemination Initiative,
Institute of Computer-Based Learning,
Heriot Watt University,
Riccarton Campus,
Edinburgh EH14 4AS

Telephone :0131 451 3280
Fax : 0131 451 3283
Email :   ltdi@icbl.hw.ac.uk
WWW :   http://www.icbl.hw.ac.uk/ltdi

8.8 SOURCE MATERIALS

General Texts on Teaching and Learning in Higher Education

BROWN, G AND ATKINS, M (1988) **Effective Teaching in Higher Education**, London, Methuen, 245pp, ISBN 0 416 09082 6 £9.95

> Probably one of the best overall texts on teaching and learning in higher education. Comprehensive coverage is given to lecturing, small group teaching, laboratory teaching, research and project supervision, student learning and helping students to learn.

ENTWISTLE, N. THOMPSON, S. AND TAIT, H (1992) **Guidelines for Promoting Effective Learning in Higher Education**, University of Edinburgh, Centre for Research on Learning and Instruction, 106pp, £5.00 (special price for University staff)

> This book is easily read and browsed and serves to set teaching in its context of student learning. Teaching methods are reviewed and underpinned with reference to the research on student learning. The book uses a systems approach to reviewing the improvement of teaching and learning in higher education.

GIBBS, G AND HABESHAW, T (1989) **Preparing to Teach: An Introduction to Effective Teaching in Higher Education**, Bristol, Technical and Educational Services Ltd. 260pp, ISBN 0 947885 55 2, £9.95

> Provides a thorough grounding with plenty of practical suggestions for those going into teaching for the first time. Useful also for those who want to have a look at their existing teaching methods.

NEWBLE, D AND CANNON, R (1991) **A Handbook for Teachers in Universities and Colleges. A Guide to Improving Teaching Methods**, (revised edition) London, Kogan Page, 161pp, ISBN 0 7494 0512 0, £12.95

> An informal and easy to read book. It includes sections on teaching large classes, making a presentation at a conference, small group teaching, teaching practical and laboratory classes, curriculum planning and preparing teaching materials.

RACE, P AND BROWN, S (1993) **500 Tips For Tutors,** London, Kogan Page, 130pp, ISBN 0 7494 0987 8, £14.95

> This is a start-anywhere, dip-in resource suitable both for novices and more experienced tutors. It is a stimulating book with its 500 'ideas' grouped into six broad areas: general study skills, starting off and working together, lectures and written work, learning resources, assessment, and life skills.

RAMSDEN, P (1992) **Learning to Teach in Higher Education,** London, Routledge, 290pp, ISBN 0 415 06415 5, £12.99

> Despite what the title suggests, this book is most suited to experienced teachers in higher education who would like to improve their teaching skills, or who are interested in finding out about different approaches and methods. The three main sections cover: learning and teaching in higher education, design for learning, and evaluating and improving the quality of teaching and learning. Case studies are included for illustration.

Lectures

ANDRESEN, L.W. (1994) (Ed) **Lecturing to Large Groups: A Guide to Doing it Less.....but Better** (SEDA Paper 81) Birmingham, Staff and Educational Development Association, 94pp, ISBN 0 946815 58 5

> A dip-into book full of practical ideas, including: promoting student activity, obtaining feedback, encouraging dialogue, alternatives to lecturing.

BLIGH, D.A. (1972) **What's the Use of Lectures?** (3rd edn.) Harmondsworth: Penguin. 256pp. ISBN 0 14 080321 1

> The book addresses the objectives lectures can realistically be expected to achieve, what techniques help to make lecturing effective, what other methods can be drawn on to address the shortcomings of lecturing as a teaching-learning technique, and what lecture preparation entails. Though in some respects rather dated, this influential book remains invaluable for its extensive review of research findings which suggest that while the traditional lecture can be used to convey information economically, it cannot be used effectively on its own to promote thought or to change attitudes.

BROWN, G (1978) **Lecturing and Explaining,** London, Methuen, 134pp, ISBN 0 416 70920 6

> This is first and foremost a practical book, filled with activities you can try out, on your own and with students and colleagues, to enhance your lecturing skills. Particularly useful on designing and giving explanations, ways of structuring lectures, non-verbal clues and body language and the vital but usually neglected topic of helping students learn from lectures.

CRYER, P. AND ELTON, L. 1992) **Active Learning in Large Classes and with Increasing Student Numbers** (Effective Learning and Teaching in Higher Education, Module 4) Sheffield: CVCP Universities' Staff Development and Training Unit

> The booklet is in two parts. Part 1 considers four main teaching methods (lectures, problem and example classes, tutorials and workshops) together with issues of staff time, teaching accommodation and institutional strategies for coping with large classes. Part 2 illustrates how university teachers in different subject areas (pure and applied sciences, social sciences, the humanities and professional studies) have used the strategies outlined in Part 1.

CANNON, R (1988) **Lecturing,** (HERDSA Green Guide No. 7) Kensington, New South Wales, Higher Education Research and Development Society of Australasia, 47pp, ISBN 0 908557 09 4

> Brisk, clear and to the point, this booklet begins by outlining what effective lecturing entails before moving on to the topics of lecture preparation and lecture evaluation.

GIBBS, G (1992) **Lecturing to More Students**, (Teaching More Students, Booklet 2) Polytechnics and Colleges Funding Council, 37pp, ISBN 1 873576 11 3

> This booklet is a useful guide to lecturing as well as the specific problems of lecturing to large groups. Particularly helpful for its examples of lecturing interactively and for its clear cut advice on four fundamental aspects of large-group lecturing: eliciting and answering students questions, structuring lecture material and using handouts and technical aids.

GIBBS, G. HABESHAW, S AND HABESHAW, T (1988) **53 Interesting Things to Do in Your Lectures**, (3rd edition) Bristol, Technical and Education Services Ltd. 156pp, ISBN 0 947885 02 1

> The 53 suggestions given, each of which is self-standing and intended to make sense on its own, are grouped under headings such as: improving students notes, using handouts, linking lectures, structuring and summarising content, and active learning during lectures.

Seminars and Tutorials

FORSTER, F. (ed.) (1997) **Support For Part-Time Teaching in Higher Education: Case Studies of Practice,** University of Edinburgh, Centre for Teaching, Learning and Assessment in association with UCoSDA, ISBN 0 9523956 9 X   in press

> A collection of case studies from across a range of disciplines describing the support provided from within departments for part-time tutors, brought in professionals, workplace supervisors and demonstrators.

FORSTER, F. HOUNSELL, D. AND THOMPSON S. (1995) (eds) **Tutoring and Demonstrating: A Handbook** University of Edinburgh, Centre for Teaching Learning and Assessment in association with UCoSDA, Sheffield. 96pp, ISBN 0 9523956 1 4

> A handbook designed to help new teaching assistants, tutorial fellows and other part-time tutors and demonstrators. It includes the preparing for and managing of tutorials, problem solving classes, demonstrating, student written assignments and their assessment, one-to one support, and obtaining feedback on your teaching.

GIBBS, G. HABESHAW, S. AND HABESHAW, T. (1988) **53 Interesting Things to Do in your Seminars and Tutorials**, (3rd edition) Bristol, Technical and Educational Services Ltd. 136pp ISBN 0 947885 07 2, £6.95

> The 53 suggestions given are grouped under the headings of: starting off; student-led seminars; group work; encouraging students to participate; encouraging students to take responsibility; evaluating the work of the group; written material; expressing feelings. The whole book is a rich compendium for tutors seeking ways to maximise effective student participation.

GRIFFITHS, S. AND PARTINGTON, P. (1992) **Enabling Active Learning in Small Groups** (Effective Learning and Teaching in Higher Education, Module 5), Sheffield, Committee of Vice Chancellors and Principles, Universities Staff Development Unit, 54pp

> This book offers a comprehensive introduction to the teaching small groups. Part 1 deals with key basic issues: what is meant by small groups; why use them in teaching; starting off; the importance of setting; methods of promoting active learning; sub-skills needed for effective small group teaching. Part 2 consists of practitioners' case studies drawn from a wide range of academic disciplines to illustrate that the strategies reviewed in Part 1 do work. A video accompanies this book.

JAQUES, D (1991) **Learning in Groups,** (2nd edition). London, Kogan Page, 222pp, ISBN 0 7494 0440 X

> This book offers a framework for tutors who wish to take a systematic look at the planning and implementing of small group teaching with a full awareness of the range of possible approaches. The core materials are in Chapters 5,6,7 and 9, dealing respectively with: aims and objectives, tasks and techniques, the tutors job, and evaluating groups. Jaques also addresses anxiety which many students and tutors feel about working in groups, in a sensitive, informed and helpful way.

LUBIN, J (1987) **Conducting Tutorials** (HERDSA Green Guide No.6) Kensington, New South Wales: Higher Education Research and Development Society of Australia, 40pp, ISBN 0 908557 08 6

> Brisk, clear and to the point, this booklet begins by reviewing some fundamental issues such as why tutorials are important, what happens in them and the role of the tutor. Subsequently four themes are dealt with: types of tutorial; getting started; strategies and techniques; problems. The author presents a reflective review of the major skills needed to conduct tutorials effectively.

Student Learning

ENTWISTLE, N (1992) **The Impact of Teaching on Learning Outcomes in Higher Education: A Literature Review**, Sheffield, Committee of Vice Chancellors and Principles, Universities Staff Development Unit, 59pp

> An up-to-date and comprehensive review of the literature relating to student learning in higher education, with a particular emphasis on its influences.

ENTWISTLE, N AND RAMSDEN, P (1983) **Understanding Student Learning**, London, Croom Helm, 248pp, ISBN 0 7099 0921 7

> Although now out of print, this book describes much of the early research into student learning which led to the construction of the Approaches to Studying Inventory (ASI) which has been used world-wide to profile students' styles and strategies of learning.

MARTON, F. HOUNSELL, D AND ENTWISTLE, N (1997) **The Experience of Learning**, (Revised Edition) Edinburgh, Scottish Academic Press, 273pp, ISBN 7073 0749 X

> A comprehensive review of student learning including chapters on: contrasting perspectives on learning; approaches to learning; skill in learning and organising knowledge; problem-solving; learning from lectures; enabling understanding through tutorials; understanding teaching and teaching for understanding.

RICHARDSON, J. EYSENCK, M AND WARREN PIPER, D (EDS.) (1987) **Student Learning: Research in Education and Cognitive Psychology**, Milton Keynes, SRHE and Open University Press, 228pp, ISBN 0 335 15600 2

> The individual chapters are written by acknowledged authorities in the field. The five parts look at categories of student learning, thinking and problem solving, learning as construing, improving student learning and assumptions, objectives and applications.

8.9 METHODS OF TEACHING AND LEARNING: CASE STUDY

Case Study 2: The Application Of World Wide Web (WWW) Technology

(Source: Tudor Jones, Department Of Tropical Animal Health)

THE APPLICATION OF WORLD WIDE WEB (WWW) TECHNOLOGY IN THE DEPARTMENT OF TROPICAL ANIMAL HEALTH

We have two WWW applications in our department. One supports our teaching of parasitology to undergraduate veterinary students while the other acts as an information resource on our postgraduate courses for both potential and enrolled students.

Parasitology

Parasitology is a very visually-driven subject, especially when taught as part of the veterinary curriculum. It is important that vets are able to recognise the wide variety of forms of the different parasites as well as the different forms of individual parasites. We are currently capitalising on the Web's ability to deliver high quality images that can be integrated with explanatory text as a means of supporting practical classes and lecture topics. We are currently in the process of photographing and then digitising the entire microscope slide collection that the students use in practical classes so that they can repeat or revise any practical session. This is a very important aspect of the web as far as we are concerned as it removes the need to give students access to valuable microscope slides. We are intending to provide lecture notes in hypertext form with links to the slides that were used in the lectures. Our images are all "mastered" onto photoCD initially and then transferred to our web server in the required format etc. These images are also used in other CAL packages.

We have called our site "Parasitology OnLine" and it went "live" in January 1995 but it is still very much under development, especially the organisation and access methods which presently revolves around a timetable structure. We have found that the TABLE format is very useful for presenting images, e.g. the transparencies from lectures can be made to look like 35mm slide mounts and the microscope slide collection can be made to look like a slide tray with glass slides by using the various table format options of Netscape such as cell padding. Later on it is likely that we will provide information such as overhead transparencies in Acrobat format. Our site also has links to other parasitology sites to encourage our students to explore particular aspects of parasitology that interest them. We are also developing feedback forms etc. so that students can contact staff directly with any problems or notify us of any new sites. In this way we hope that this web site will give our students access to a wide range of teaching resources from a centrally accessible facility.

You can find "Parasitology OnLine" on the Veterinary Faculty webserver http://www.vet.ed.ac.uk/teaching/Ponline. Access, however, is currently limited to the Edinburgh University domain.

Postgraduate Courses

Most of our postgraduate students come from overseas, often sponsored by international funding agencies, and we need to make sure that information on our courses is readily available to anyone looking for training in any aspect of international animal health and production. With the ever-increasing costs of advertising courses overseas we decided that we should supplement our normal mailshot procedure by placing details of all of our courses on the web. Also all our courses have recently been modularised so students have a wide choice of topics that they can incorporate into their course. Trying to promote those options in a structured way is difficult and expensive using paper as we have 5 courses each one made up of 6-8 modules picked from a list of 44 modules. We hope that by putting all the module options on the web and then creating links between courses and modules that potential students will be better able to navigate through all the options. Also the web lets us include out far more information on individual modules than we could in printed form as well as making sure that our course information is up-to-date. We also envisage that this resource will be used by students to help them make their final module choices once they arrive at Edinburgh.

The course information is part of a much larger departmental web site that will eventually cover all of our department's activities including publications and research.

Our web site forms part of the Veterinary School's web site and can be found on http://www.vet.ed.ac.uk/ctvm. Our teaching pages can be reached from our home page or directly on www.vet.ed.ac.uk/ctvm/teaching.

Tudor W. Jones, Senior Lecturer/Senior Research Fellow, Tropical Animal Health