**University of Glasgow**

# Academic Standards Committee – Wednesday 20 April 2011

# Report from Scottish Agricultural College – Response to Conditions and Recommendations for Validation

### Geraldine Perriam, Senate Office

**REPORT IN RESPONSE TO THE VALIDATION REPORT**
**Validation of PGCert/PGDip/MSc Countryside Management**

## The conditions and recommendations

The validation Panel set three conditions and made three recommendations at the event held at SAC Ayr on 5th May 2010.  These were set out in Section 5 of the Validation Report. This document explains how the development team will meet the conditions and how it will address the recommendations.

The conditions and recommendations are set out below. Paragraph numbers refer to those in the Validation Report. For clarity in this report, the separate bullet points in the first condition (5.3.1) have been numbered (and will be referred to by those numbers rather than 5.3.1.1, 5.3.1.2 etc).

## Conditions

**5.3.1**   That in order to produce the PGCert/PGDip/MSc Countryside Management definitive document the team augment the information in the validation document to provide:

1. more explicit information about the academic aims of the programme, articulating more clearly what was meant by 'countryside management' [4.1];

2. more detail in the Rationale and in appropriate module descriptors about the competing demands of different forms of land use as a central theme of the programme and to include reference to the socio-economic/historical context [4.3.1];

3. an explicit explanation of how the programme promotes the development of research skills and quantitative methods as the basis of evidence-based evaluation and decision-making [4.3.2];

4. greater detail in the module descriptor for *Species identification & familiarity* in order to make clear the level of expertise of someone successfully completing the module [4.3.3];

5. an integrated picture of the curriculum by devising a suitable means of making explicit the various links between modules [4.3.4].

6. more information about specific aspects of the curriculum noted in 4.3.5;

7.  clarification of the extent to which case studies will be used as vehicles for learning, teaching and assessment, and examples of how the case studies approach allows issues that cut across a number of modules to be fully explored [4.1, 4.3.1, 4.3.2, 4.3.4];

8.  a summary of the support for distance learning provided by the Library [4.7];

9.  an explanation of the ways in which the phased submission of assessment material will provide timely feedback to students on their performance and progress [4.8];

10. more comprehensive CVs of the teaching team [4.9].

**5.3.2**   That the team review module descriptors to ensure that they fully and accurately convey all necessary information. This should include a consideration of:
- the content;
- the verbs used in the learning outcomes;
- the approaches to learning and teaching;
- the mode of assessment, including the nature of the coursework;
- the range and appropriateness of the reading lists.

**5.3.3**   That the team provide clear guidance about the conduct of Masters projects in order to achieve the appropriate balance between self-reliance on the part of the student and support from the supervisor [4.4].

**Recommendations**:

**5.4.1**   That the team facilitate the development of identification skills by highlighting the areas of specialisation that can currently be offered and by encouraging specialisation in under-represented taxa [4.3.3].

**5.4.2**   That the team consider how best to capitalise for marketing purposes on those aspects of the programme that differentiated it from other potentially competing programmes [4.3.5].

**5.4.3**   That the team continue to investigate the possibility of recognition of the programme through accelerated routes to membership of appropriate professional bodies, such as IEEM [4.6].

## Response to the conditions and recommendations

The nature of some of the requirements in the first condition and the layout of the validation document/definitive document mean that in some cases a particular requirement can be met by making amendments to more than one section of the document. The table below gives the page numbers on which significant amendments have been made and the corresponding conditions that gave rise to those amendments.

The second condition – that module descriptors be reviewed to ensure that they fully and accurately convey all necessary information – has been met, with the result that descriptors have been amended to make them more explicit. In order to save space, they are not included in this paper, but are available on request.
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The responses to two of the three recommendations (5.4.1 – identification skills; 5.4.2 – marketing) have been incorporated as part of these amendments. The third recommendation (5.4.3 – professional bodies) will be addressed by investigating whether bodies such as the Institute for Ecology and Environmental Management (IEEM) would offer student membership or an accelerated route to membership for graduates of the programme.

| Page | Conditions / (Recommendations) |
|---|---|
| 20 | 2 |
| 21 | 1 |
| 24 | 7  (+ 5.4.2) |
| 25 | 2, 3, 7, 5.3.3 |
| 29   B3.2 | 9 |
| 30   B3.3 | 4, 5, 6 (+ 5.4.1) |
| 33 | 5.3.3 |
| 37   B4.4.3 | 8 |
|      B4.4.5/6 | 3, 7, 5.3.3 |
| 39 | 3, 6 |
| 42 | 9 |
| App1 | 5.3.2 |
| App 9 | 5.3.3 |
| App10 | 10 |

## Amended sections of the document

**Pages 20/21**

**B 2     PROGRAMME RATIONALE**

**B 2.1   The academic purpose of the programme**

SAC's mission is "To enhance the rural economy and environment." The vision of the Education and Training Division is "To be the leading provider of higher education and training for the rural sector in Scotland".   The aims of the Learning Division are encompassed within the SAC Core values:

- Making A Difference (SAC staff aim to make a difference through focussing on work which is relevant, by being supportive and by taking a practical approach to all aspects of our work.)
- Being Objective (SAC staff are open-minded and impartial. They take a measured approach, carefully considering all aspects of any situation and the impact that their actions may have.)
- Being Forward Looking (SAC staff look to improving the business through developing imaginative and innovative ideas and being adaptable so as to facilitate the adoption of new ideas.)
- Behaving Professionally (SAC staff value a climate where mutual respect is shown by all. They are committed to being dependable, competent and behaving in a business like manner.)

The factors affecting the wider environment are constantly increasing and range from agriculture and forestry to recreation, urban development and population growth. These in turn have knock-on effects such as climate change, water and food shortages, habitat and species loss and the impact of non-native species. One of the areas where these factors come together is in the field of countryside management where the public use of the countryside interacts with professional land managers and can result in conflict.

In the context of this programme and the degree programme from which it has developed the term countryside management encompasses a broad range of topics and land uses ranging from conservation management to rural land use planning and interpretation to land use history. Students are expected to have a broad knowledge of how the countryside that we see around us has developed in a historical context and how this relates to factors such as climate, ecology and soils. This in turn helps to determine current land use practice whether it be for agriculture or forestry, conservation management or recreation. Inevitably these land uses are interlinked in complex ways and the countryside manager is expected to be able to identify the potential conflicts and to arrive at appropriate management options. Of course there is rarely a simple answer in such situations and the resulting decisions have to be based on an understanding of the competing claims and an awareness of how to work with individuals, interest groups and communities to ensure that stakeholders' views have been taken into account.

In a time of dynamic change there is a need for land managers who can help to mitigate conflict by sympathetic and imaginative management. SAC has, for over 100 years, been educating land managers and in recent times the focus of its education has shifted towards integrated land use. By providing a programme of advanced study that will enable students graduating from it to make a contribution to the countryside management sector the course aims to address SAC's mission and the strategic aim of the Learning Division.

In line this aim the specific objectives of the programme are to provide diplomates and graduates with:

- the ability to critically appraise all elements of countryside management
- the ability to arrive at evidence-based decisions
- a sound knowledge of the science and sociology of countryside management
- the opportunity to develop skills in selected areas through a problem-solving approach using case studies
- well developed personal skills (management, computer, communication, etc.)
- research skills (MSc. graduates only)

In order to make the course accessible to as wide a range of potential graduates as possible, and in particular make it accessible to those already in related employment, it will be delivered on a part-time basis through on-line distance elearning.


## B 2.2  Rationale of the proposed programme

The experience of staff at both SAC's Aberdeen and Ayr campuses has suggested that that a significant number of applicants for the Countryside Management programme are career changers, often with either a previous degree or with considerable experience in the sector. As these are mature students with commitments it is not possible for them to undertake a full 4 year degree course so they opt either for a HNC or else take a "pick and mix" selection of modules to add to their CV. This is not entirely satisfactory as the HNC programme, while including valuable basic knowledge and skills, is not an academic progression from their previous qualifications nor does it add to their existing experience and knowledge-base.

An additional group of applicants has also emerged in recent years. These are already employed in the sector and want to upgrade their qualifications (ie from HNC to degree) or to take selected modules as CPD. The former will achieve a higher level award when they complete the course, possibly opening up career paths for them, while the latter group will end up with a mixture of modules, some of which are validated by SQA and will appear

formally on their Record of Education and Training. The individual degree modules however, while validated by Glasgow University, do not come with formal recognition, but they will add to individual's CPD and career progression prospects..

The concept of a Masters course, delivered by distance learning was suggested as a way in which the needs of the career changers and those seeking CPD could be met. The Countryside Management programme already delivers the HNC by distance learning so the principle is not new to the team. During a discussion at the latest degree validation meeting (in 2007) two of the panel members also proposed a Masters course as a logical development from the degree and with this support a development team was established to take the proposal forward. An Outline Planning Document was submitted to SAC's Education Management Group and ratified by the Divisional Management Team and this was followed by wider discussions and market research to gauge the views of the industry (see section B 2.3)

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The programme will be marketed through a range of different approaches, specifically targeted at the industry and those with an interest in the countryside.  This will use:

A dedicated page on the SAC website giving more information about the programme, and a programme leaflet downloadable from the site. The web pages will include the detailed module descriptors, as well as examples of the case-study approach adopted in many modules. These case studies will serve to illustrate both the general principles being taught, as well as the more site, species or legislation specific specialist knowledge that may be gained in such a problem-based approach. The course leaflet would also be part of our overarching postgraduate prospectus. The web pages will be "meta tagged" so that they appear on search engines. They would be tagged with appropriate search terms such as "Countryside Management" "distance learning" or other terms associated with the course so that the programme is readily found by those who might be interested.

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The breadth of coverage of the programme content reflects the wide range of potential interactions between different aspects of the countryside manager's job. In order to incorporate this reality into the programme content it has been decided to use a problem-based learning approach. This will require the students to take a broad look at a problem, to analyse the nature of the problem and appreciate the various interest groups and conflicts. Guidance will be given on the basic literature but students will be expected to carry out appropriate literature searches to research the background to the problem and to evaluate the various possible solutions. These solutions are likely to involve the assimilation of information from a number of subject areas with decisions being based on a wide range of information. This approach will also provide a valuable introduction to research methods and be good preparation for planning and carrying out their dissertation.

## Pages 29/30

Notes:
♦ While the traditional approach to study weekends is that they are held at the start of each block of modules, the Development Team will consider the benefits of having the second and possibly the subsequent weekends after the start of the module. With the learning material being available on-line students can get started of the module and a study weekend some 3 or 4 weeks after the start would provide a good opportunity to monitor progress and to have valuable discussions with the students. Such study weekends would thus not consist of going through

basic materials, but would enable more advanced learning to take place, making the most use of face-to-face interactions and site visits.

♦ Module examinations, where appropriate, will take place on campus at study weekends in February and June. Guidance in revision for exams will obviously be given in the lead-in to each exam period.

## B 3.3 Curriculum overview

The integrated nature of the programme content means that the students will have to be able to relate material from one module to a problem in another module. For students who are using the programme as CPD it is probable that they will already have a good background in the general subject area but for career changers it will be necessary to provide sufficient background at the start to enable them to approach the material in a meaningful way. It is difficult to illustrate all of the linkages between the modules but the following diagram attempts to make the linkages and the logic of the curriculum structure more apparent.

The core part of the programme is the integrated implementation of management in the countryside and this is achieved through the production, implementation and monitoring of management plans. However any management plan must be based on knowledge both of the habitats and species that are present in an area and also on how the area is used by the public and other landusers. In turn this knowledge and its application in any given situation can only be appreciated if set in the wider context of the policy and legislative context of land use at international, European, UK and Scottish levels.
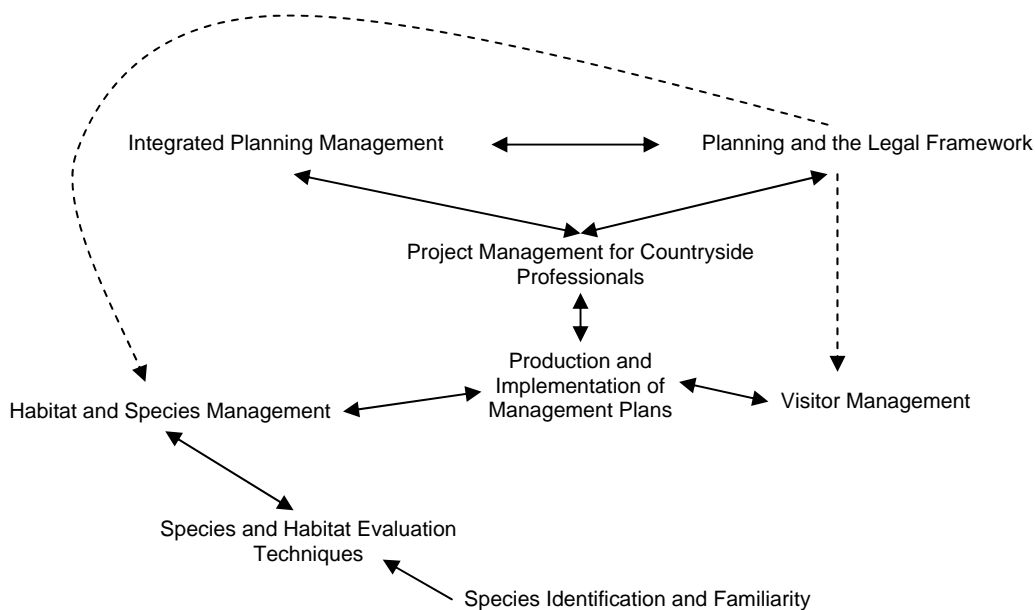


At the base of the above flow chart are two modules relating to the development of identification skills and their interpretation. These are considered to be a fundamental part of the programme and go some way to meeting the demand for such skills. A number of reports have highlighted the shortage, and advancing years, of people with good identification skills and the fact that without such basic information it is impossible to decide on priorities for management. Clearly in the time available it is not possible to become an expert (only time and practice can achieve that) but the modules will provide an introduction to standard techniques and the ability to compile and interpret species lists, including providing students with abilities to determine what species may be expected in a given habitat/situation. . SAC is well placed to deliver such modules as there is a wide range of

expertise amongst the teaching staff whose specialisms include badger, bat and water vole surveys, bird surveys and invertebrate surveys. Note that for students coming into these modules with existing identification skills, it will be possible, subject to available expertise, to allow individuals to develop a much higher level of expertise in selected group(s).

The module titles indicate general subject areas but they do not give details of the content nor of the extent to which the modules relate to one another. The flow chart above suggests some of the links but the level of interaction is much greater. In particular there are a number of themes which run through the programme are which, to a lesser or greater extent, will crop up in most modules. These are dealt with more fully later but include legislation, which provides a framework within which the management of the countryside is practiced and a number of current issues that are of particular relevance such as climate change, community involvement, recreation and non-native species.

It should be noted that as well as programme-specific linkages being shown above, the development of core skills will also be enhanced by such linkages, such as through using core skills in different situations in different modules, thus developing flexibility as well as better use of such core skills.
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Projects should normally be an original piece of research, and have a hypothesis that is tested by the work carried out. Acceptable alternatives to practical research might be a critical review or modelling. A dissertation may be acceptable if the Core Team is satisfied that the subject area is substantive and the dissertation will include original findings. Dissertations must not be merely extended literature reviews. Extensive guidance is given to students on the conduct of the dissertation and an example of the Project Handbook is given in Appendix 9

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### B 4.4.3   Library arrangements

Information on general on-campus library provision is given in Section B9.2. Special arrangements are in place for on-line distance learning students. These include:
- an increasing number of ebooks which are available to all students. These are particularly useful for following up guided reading.
- an extensive portfolio of ejournals which are available via an ATHENS password.
- the availability of postal loans. These can be sent out for limited periods or in some instances for extended loans.
- access to instant messaging. This allows students to get answers to general queries, advice on study skills and guidance on literature searches.
- access to books via local libraries through SCONUL Access.
- special opening arrangements during study weekends when the distance learning students are on campus.
- the digitisation of key journal articles to be digitised so that they may be uploaded into Moodle and accessed by students electronically.

### B 4.4.4   Computing support arrangements

Information on general on-campus computer provision is given in Section B 9.3. Distance learning students have access to these facilities when at study weekends or anytime when they may be visiting a SAC campus as part of their studies. Distance learners principally use their own computers and telephone support is available from SAC's Information Systems

Group during working hours to help distance learners with computing issues, in particular regarding accessing the learning material on Moodle.

### B 4.4.5  MSc planning

Although the actual planning for the MSc project does not start until year 2 of the programme the preparation for it is implicit in the design and delivery mechanisms of the programme. The ability to research information and to plan a schedule of work will be required of all students throughout the Certificate and Diploma years. Distance learning students need to be disciplined about balancing their studies with their 'other' lives.

The use of case studies as a basis for much of the programme means that students will have a lot of practice at gathering and analysing information from a number of sources and arriving at evidence based conclusions. This will stand them in good stead for their project. The actual project topics are likely to be varied and will reflect the realities of the countryside management scene. Students may well get ideas for a project during their studies or they may already have a particular area of interest.

Students studying on the Postgraduate Diploma are encouraged to think about and plan early with regard to doing the MSc project. The Programme Leader gives a presentation regarding the MSc at the mid-session study weekend prior to the end of year 2. This is then re-iterated at the June weekend. Students are given a document containing project details, including their expected contribution, draft submissions, project hand in, thesis construction and submission, and thesis assessment.  Staff are also encouraged to suggest project topics. A list of possible topics, with brief summary outline, is collated and provided to the students in the summer term. However students will be encouraged to come forward with their own ideas for projects and to develop these in consultation with staff. These may require the involvement of other SAC staff or of outside organisation or individuals and the supervisor will need to be satisfied that suitable arrangements can be made.

### B 4.4.6  MSc project

Students are allocated a supervisor for the period of the MSc project. Supported by the Programme Leader, the supervisor provides the main contact and support during the period of project. MSc students will attend two on-campus study days during which supervisor meetings will take place as well as sessions on library searching, project presentations, conducting the project and thesis construction and submission will take place. In addition students will receive a Project Handbook (see Appendix 9) which gives extensive guidance of the planning, development, carrying out and marking of the dissertation.

The successful completion of a dissertation for distance learning students will be a challenge and it will be necessary to maintain regular contact with the supervisor. This will be more complex if outside bodies are involved but this should not be a barrier to a student carrying out an imaginative and valuable project.

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### B 4.7  Environment, conservation and key skills issues

This programme has been developed in accordance with SAC's policy on the environmental and biodiversity conservation content of its education programmes. Students are expected to be fully aware of the environmental consequences of the activities and industries for which

this programme provides education and training. Issues relating to the environment and to conservation are clearly explicit in the programme structure.

However in addition to a general awareness of the environmental and its stewardship there are a number of specific issues and subjects that are of particular relevance to the programme and some of these are outlined below. Whilst not being the subject of any particular module in the programme, many of these subjects will constitute common 'threads' that will be picked up in many modules.

**Legislation:**   In recent years there has been a significant amount of new legislation relating to the environment. While it is domestic legislation that directly affects individuals and organisations the main driver for change has come from Europe and beyond. The Berne Convention, the Convention on Biological Diversity, and the Birds, Habitats, Environmental Impact Assessment and Water Framework Directives have imposed obligations and targets on the UK and these have been variously met by new legislation or by modifications to existing legislation. However devolution has added extra complications to an already complex situation with parallel legislation being passed in Westminster, Holyrood and Cardiff. It is essential that students are aware of the overall legislative framework and can identify what is relevant in different situations.

**Climate change:** Climate change is a significant imponderable which is likely to affect all aspects of countryside management. While the causes and possible solutions are still the subject of research the issue has emphasised the fact that climate is not a constant and that it has fluctuated over the centuries and millennia since the last glaciations. The pace of current changes may not be unique but they come at a time when habitat fragmentation and anthropogenic impacts are likely to make it very difficult for organisms and habitats to react and adapt. The impacts will have a profound effect on the way that habitats are managed and potentially our whole approach to conservation. Students will be challenged to think creatively about the practice and philosophy of the management of the countryside whether it be for conservation or recreation.

**Recreation:**   An understanding of the interaction between informal recreation and the wider countryside is an integral part of the programme and helps to distinguish it from other similar sounding courses. The public are now making greater use of the countryside for recreation than they have ever done and they are doing in a greater variety of ways. Some of these will potentially conflict with conservation or landscape priorities and an understanding of the motivations and impacts of such activities is essential if mutually agreed solutions can be arrived at. The differences in access rights in different parts of the UK provide valuable case studies both of the direct impacts and of the attitudes of land managers and those who exercise those rights.

**Community involvement:**   The role of the community has been emphasised by recent legislation the importance of community buy-in and stakeholder involvement must be taken into account by countryside managers. In some cases this may be the obvious way to ensure that a project is planned and implemented successfully but in other situations the manager may feel constrained. For example the involvement of local communities in the management of a reserve could be seen as a threat by the site manager and a challenge to his professional knowledge. Such situations must be tackled with tact and understanding and a recognition that if there is to be community involvement it must be taken seriously.

**Designations and landscape issues:**   The designated land approach to conservation underpins conservation efforts across the world. In the UK, designations such as SSSI, SAC, and SPA are vital in conservation and countryside management, but there are also other designations that impact on the countryside. In addition, there are species-specific initiatives (e.g. European Protected Species, or Species Action Frameworks in Scotland), as well as

initiatives for conservation in the wider countryside (agri-environment schemes). An understanding of all of these initiatives, and how the apply and interact in specific case-studies, is an important part of the countryside management. The role of designated land for example in the wider landscape is also required, to understand how management practices impact on and interact with different management or habitats/species elsewhere. Relevant case-studies will therefore not only focus on the specific site in question, but will also put that site within the wider landscape context.

**Non-native species:** Non-native species have been seen as one of the greatest threats to biodiversity after habitat loss and while the level of threat may be less in the UK than in many other parts of the world there is no doubt that there have been significant impacts from, for example, Japanese knotweed, mink and grey squirrel. There is the potential for many more species to become established in the UK as a result of the greater mobility of humanity combined with the intercontinental movement of plants, food and animals. This is likely to be exacerbated by a changing climate making it possible for a wider range of species to become established. Recent and forthcoming legislation is attempting to deal with this but it is difficult to predict in advance what species may become established and even more difficult to predict what will be invasive. At the same time there is the problem of how to deal with existing invasives: is it possible to eradicate them; what is the public reaction to such schemes; can their impacts be mitigated; can alternative control methods be used (eg for Japanese knotweed). Such issues are complex and every situation is different so a thorough understanding of the biology and each species, its likely impacts and the possible methods of control/eradication is necessary before action can be taken.

**Data collection, analysis and interpretation:** Evidence-based countryside management relies on the correct collection, analysis and interpretation of appropriate data. These skills are vital in developing the ability of all students to perform basic habitat/species/environmental/visitor monitoring, but also interpret data gathered by someone else or presented in a report. For those undertaking the MSc project, it is also essential that they have the ability to plan and then carry out or oversee such work. These skills will be developed through the case-study approach, where, for example, appropriate monitoring strategies will be shown within an applied context, and the students required to analyse/interpret the data. More advanced guidance on project-planning with regards analysis requirement will be given to those students undertaking the MSc project, with project-specific guidance being given by project supervisors and appropriate specialists within SAC.

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## B 5    ASSESSMENT PROCEDURES

### B 5.1  Methods of assessment

SAC recognises the fundamental role of assessment in the learning process. Assessment has a major influence on the effort that students put into the learning process and the extent and depth of what they learn. Assessment ensures that academic standards are maintained at the appropriate level and is the means by which evidence is obtained that students have achieved the intended learning outcomes of a module or programme. In addition to providing the means by which the current performance of students can be judged, assessment allows staff and students to monitor progress, predict future performance and evaluate the effectiveness of teaching. The purpose of SAC's assessment strategy [Education Manual, Section G1] is to ensure that there is a consistent approach to assessment across programmes and campuses, and that assessment practice is in accordance with Section 6 (*Assessment of Students*) of the QAA *Code of Practice.*

It is recognised that distance learning students present particular difficulties in terms of providing feedback on assessments and the regular face to face provision of advice that on-campus students would receive. While the latter can be overcome through emails, telephone conversations and on-line seminars and tutorials it is more difficult to provide the former. Many of the modules are assessed purely by coursework and this could result in students submitting an assessment at the end of a module with no meaningful opportunity for useful feedback. To avoid this there will normally be more than one assessment per module so feedback will be given on the first assessment that can be of use for the second one. In addition the possibility of holding study weekends after the start of a module (as mentioned earlier) would allow students to begin looking at the material before attending the weekend. While this would not apply to the first study weekend which would, of necessity, be held at the start of the programme so that a full induction could be held, it would mean that for the other modules there would be an opportunity for feedback and discussion before the submission of any assessment material.

**Table 12** *Module Assessment*

| Module title | Assessment |
| --- | --- |
| Planning and Legal Framework | 100% Course work |
| Habitat and Species Management | 100% Coursework |
| Visitor Management | 100% Course work |
| Species Identification and Familiarity | 100% Coursework * |
| Integrated Planning Management | 100% Course work |
| Project Management for Countryside Professionals | 100% Coursework |
| Production and Implementation of Management Plans | 100% Coursework |
| Species and Habitat Evaluation | 100% Coursework* |

*both modules will be delivered through Study Weeks where part of the assessment will take place


**Appendix 9**

Appendix 9 is a detailed MSc Project Handbook, which will be issued to all students. To save space, it is not reproduced here. Validation condition 5.3.3 required the team to *provide clear guidance about the conduct of Masters projects in order to achieve the appropriate balance between self-reliance on the part of the student and support from the supervisor.* This aspect is addressed by the following paragraphs in the Handbook.

Projects should normally be an original piece of research, and have a hypothesis that is tested by the work carried out. Acceptable alternatives to practical research might be a critical review or modelling. A dissertation may be acceptable if the Core Team is satisfied that the subject area is substantive and the dissertation will include original findings. Dissertations must not be merely extended literature reviews.

**Suggested project titles as well as lists of staff and their research interests are circulated to students prior to the end of the summer term. Students are encouraged to devise their own project or join in an existing research programme. A Project Proposal produced in conjunction with the Project Supervisor should be handed to the Programme Leader as soon as possible. The Programme Leader will confirm acceptance of the Project Proposal It may be advantageous to begin a literature search in preparation for the project as soon as the topic is decided. Some practical**

**preparation may need to be done before the examinations in June, e.g. setting up pot or field experiments.**

Project supervisors are normally from SAC or one of the collaborating organisations in relation to the projects. These organisations are the Universities of Glasgow or the West of Scotland or the RSPB. However, projects may be performed away from Ayr as long as the Core Team is satisfied that adequate supervision and resources are available.

Students are expected to contribute to the planning of the project. In some cases the initial planning may have been done because the project is part of a larger, on-going research plan. However, students are expected to contribute to the development of the project and suggest ideas as the work progresses.

Students are expected to carry out all the experimental work and should not expect technical support. The supervisor will assess both student performance during the research phase and as well as on the final thesis. Students should consult the project supervisor if having difficulties. However, the supervisor is going to be more impressed if they show that you have thought over the problem in the first instance rather than immediately shouting help! Students are expected to analyse and interpret the data. Consultation with the supervisor is of course, permitted, but the student should carry out the initial interpretation.

Students must submit a draft of the Introduction to the Supervisor by Christmas. The draft should incorporate a literature review and outline the rationale behind the research carried out (reason for carrying out the work, limitations in current knowledge, research strategy). The draft should be about 2000 to 3000 words in length. This is not meant to be the final version that will be longer and may give different emphasis or objectives. However it will start the ball rolling for writing-up and encourage students to put ideas down on paper. Failure to submit a draft on time will be noted.

Practical work for the project should be completed by the end of April, and the final thesis **must be handed in by ? ?th June 20??** The thesis must be completed in accordance with guidelines. Further information on Submission of Theses is available from the Library, and a full account of regulations can be found in the University Calendar.

As marking of these theses will be on a tight schedule, failure to hand in by the correct date will result in deduction of marks and, in extreme cases, the awarding of a Postgraduate Diploma to the student. Extension beyond the deadline date will only be granted in exceptional circumstances, upon written appeal by the Project Supervisor to the Programme Leader.

On completion of the PGDip, eligible students wishing to progress to the MSc project stage must immediately move to the project and complete it within the following session. Students are advised to begin as soon as possible with the planning of the project. Experimental work can begin before completion of the PGDip with the permission of the Programme Leader. Although the formal beginning of the session is not until the end of September students are STRONGLY advised to be well under way with their projects before then. Students will agree project milestones with their supervisor and should strive to meet them to avoid last minute stress. Some guidelines on dates for general project milestones are as follows

Draft literature review – Christmas
Experimental complete – End April
Draft thesis to supervisor – Mid May
Formal submission – Start June

Following submission, candidates are required to attend SAC for 2 days to present their findings to staff and colleagues and for viva examination with the External Examiner.

Two final hard bound thesis copies must be submitted to the Programme Leader by ??st July.

## Further information: choosing a project

The onus is on you to seek out and propose a suitable project. There may be some opportunity to "piggy back" onto existing SAC research projects and staff are encouraged to put forward possible project ideas. An idea of the types of projects that may be possible can be found in the list of previous thesis titles given out. However, please note that due to staff changes and resource re-allocation it may be longer possible to offer some similar projects. A list of possible projects put up by staff will be collated by the Programme Leader and made available. You are encouraged to think about a possible topic of your own and make a proposal. You should informally discuss your thoughts with the Programme Leader or another staff member who may be a potential supervisor, .ie., someone who has expertise or a background in the subject area you are considering. A project proposal form should be completed and passed to the Programme Leader – this need not necessarily be done at the initial informal exploratory stage but must be done when the project and supervisor have been finally decided. The onus is on you to arrange a supervisor for the project, although guidance will be available for this from the Programme Leader. Supervisors are normally SAC members of staff but staff from other Universities or Institutes may act as supervisors with an internal SAC person (usually the Programme Leader) acting liaising. You should aim to be well up and running on the project by mid-summer – earlier if possible.

## Further information: project planning and execution

Begin by planning a time schedule that is likely to be achievable. If you fall behind, reschedule the programme and try to meet fresh targets. Leave enough time for data treatment, graphics and writing up; these always take longer than expected. Also bear in mind that your supervisor will be busy and will need plenty of time and notice to be able to read and comment on drafts. Presentation of the thesis is always important. Note that your supervisor will need plenty of time to respond and comment on drafts.

Some key points in project planning:

- Make a time schedule with milestones.
- Discuss your programme with your supervisor.
- Have your avenues of investigation clearly mapped out.
- Consider if any analysis, eg chemical, needs to be sought and make provision for it if appropriate.
- Arrange for a regular progress meeting with your supervisor – this can be in person, by phone, or even by learnlinc!
- Complete the literature survey first (or at least get well through it and an early draft produced).
- Consider the statistical analysis of your results at the planning stage.
- Keep a flow of draft reports to your supervisor throughout to check. These can be brief.
- Part way through your project give an informal seminar and invite constructive criticism.
- If problems arise report them to your supervisor.
- Get expert advice from anywhere you can.
- Throughout the project keep a diary/notebook of what you did, where you found things, discussion points that you think of.

- Construct and keep building an alphabetical list of your references – record the full reference in Harvard format.
- Ask yourself if your results make sense and are in concord with experience. If they don't, ask and think why and look for explanations not excuses. Repeat if appropriate. Check calculations.
- If your findings do not concord with expectation or the work of others you will have to defend your findings with an appropriate explanation.
- Give informal seminars during the project period and invite constructive criticism.
- Research involves an adventure into the unknown. Published information is not always correct.
- If unexpected results arise, check whether you have made a mistake or if you have stumbled on an 'intellectual surprise'.

**Appendix 10**

More comprehensive CVs of teaching staff have been prepared, detailing professional experience, qualifications, current activities and publications. Again, to save space they have not been included here, but are included in the definitive document and are available on request.