

GUIDANCE NOTES FOR WRITING MODULES

USING THE TEMPLATE FROM THE ONLINE MODULE DATABASE

and including treatment of

CREDIT, LEVELS, LEARNING OUTCOMES AND ASSESSMENT CRITERIA

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[http://www.bolton.ac.uk/Quality/QAECContents/Validation/Documents/pdf/AnnexN\(ModProgDesign\).pdf](http://www.bolton.ac.uk/Quality/QAECContents/Validation/Documents/pdf/AnnexN(ModProgDesign).pdf)

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Foreword

These guidance notes concentrate on the academic requirements of writing modules, with reference where appropriate to particular features of the module specification template used in the online module database. They do not cover all of the technical aspects of using the online template or the wider module database because these are described in the online user guide (see <http://www.bolton.ac.uk/academicaffairs/stafflogin.asp>), and further advice is available from Carole Dawson in the Academic Quality and Standards Unit.

The main documents drawn on in writing these guidelines are referenced in relevant footnotes. Particular acknowledgement is made of Rosie Bingham's work at Sheffield Hallam University's Learning and Teaching Institute. Much of what follows, notably on learning outcomes and assessment criteria, is informed by or drawn from Rosie's papers.

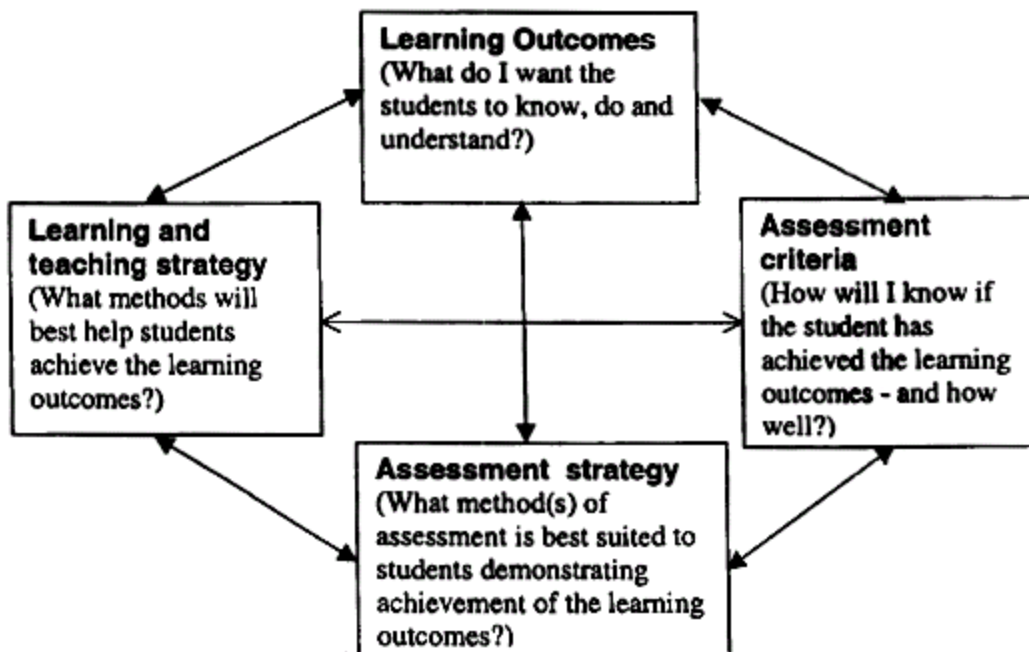
Contributions are also acknowledged from previous notes on writing modules, by Richard Harris, Dr Michael Butler and Dr Mark Scott. The current guidelines have benefited from comments by Dr Scott and John Napier on an earlier draft, and from participants' feedback at a 'Friday Briefing' on 'Writing Modules' held in December 2005.

The author welcomes further feedback aimed at improving the usefulness of the document.

Paul Birkett
January 2006

1. What is a Module?

- 1.1 A module is a self-contained 'block' of study carrying a defined number of credits at a particular academic level (see 7 and 8 below) and comprises a coherent set of learning outcomes¹ which are linked to clearly defined assessment criteria, all of which the learner must achieve in order to be awarded the credit for the module.
- 1.2 The learning outcomes are the essential defining features of a module, whilst the assessment criteria specify how a judgment will be made that the outcomes have been met. The learning outcomes must be met in order for the learner to be awarded the credit for the module. Particular attention must therefore be paid to articulating the learning outcomes (to capture the intended learning correctly) and the associated assessment criteria (to judge the achievement of the learning outcomes in a valid and reliable way).
- 1.3 Other aspects of the module referred to below, such as the syllabus content, the learning, teaching and assessment methods, notional learning time, indicative reading, etc, provide the means by which a module facilitates the achievement of the learning outcomes by the learner. The interdependency between the learning outcomes, assessment criteria, learning and teaching strategy and assessment strategy is illustrated in the following diagram, taken from one of Rosie Bingham's guides². Although each of these aspects will be related to the assessment criteria, they are not absolutely dictated by them. They can therefore be changed, whilst the learning outcomes remain the same, but might then be achieved in somewhat different ways. Essentially then, a module is its learning outcomes.



¹ Learning outcomes are known by various other names in other contexts, e.g. learning objectives; specific objectives; behavioural objectives; general objectives; process objectives

² Assessment Criteria: A Guide. Sheffield Hallam University, 1999

- 1.4 The intended learning outcomes of a module are usually devised to deliver a particular subset of the learning outcomes defined for the programme of which the module is a part. How this is approached will depend on whether the programme and its approved learning outcomes already exist, or whether the new module is being developed in concert with a number of others to help deliver an emerging set of programme level outcomes. In the former case, assuming no change to the programme level learning outcomes is envisaged, the module will help to deliver some of these pre-existing outcomes and will usually be an additional option. In the latter case, the module will probably be developed simultaneously with others as part of an iterative process, in concert with the development of the programme- level learning outcomes.
- 1.5 Whichever of these situations applies, the maps appended to the programme specification, showing how the various modules contribute to the delivery of the programme's learning outcomes, skills development and assessment strategy, will be essential design tools, helping to ensure that the module fits coherently within the broader intentions of the programme as a whole.

2. The Module Specification

- 2.1 The University's module specification template is designed to provide a consistent and systematic way of recording and communicating to students and peers:
- Factual information about a module, i.e. title, code, credits, level, pre- and co requisite and barred combinations, module type, length, etc;
 - What a module is about and how it is to be delivered, i.e. its description and purpose, syllabus content, intended learning outcomes, assessment criteria, learning, teaching and assessment methods.
- 2.2 There is some existing text written into the template which is explicitly addressed to the learners themselves (see learning outcomes and assessment criteria, assessment, prerequisite and corequisite modules and barred combinations). There is no reason why the language used in the specification should not be understandable by learners yet still meet the requirements of academic validation by peers. There should therefore be no need to write alternative module descriptors (the detailed exposition in module handbooks excepted) and this is discouraged by the University. Everything that needs to be said can be said in the appropriate section of the specification.
- 2.3 The following information must be provided for each module. The elements are listed below in the order in which they appear during data entry to the edit screen of the specification template in the online database; the view/print version of the module has a different ordering.

- Module author;
- Module title;
- Module code;
- Pathway;
- Level of module (FE3, HE4, HE5, HE6, HE7; these are equivalent to Level 0 (foundation/access), Level 1 (year 1 degree), Level 2 or H2 (year 2 degree), Level 3 or H3 (year 3 degree), Level M (masters); see 7 below);
- Credit value of module (undergraduate programmes have a standard module value of 20 credits, with double modules of 40 credits and half modules of 10 credits; postgraduate programmes operate with more variable standard values, e.g. 15, 20, 30);
- Prerequisite module code(s);
- Co requisite module code(s);
- Barred combination module code(s);
- Description and Purpose of Module;
- Indicative Syllabus Content;
- Learning, Teaching and Assessment;
- Learning Outcomes and Assessment Criteria;
- Assessment (type, description, percentage weighting, learning outcomes tested);
- Indicative Reading;
- Module Type;
- Module Length;
- Host Subject Group.

Fuller treatment of these elements is provided in sections 3-23 below.

3. **Module Author(s)** (100 characters)

- 3.1 The convention is to use 'given name' and 'surname', with no titles or middle names (although initials can be entered if required). Should the number of co-authors exceed the space provided then either agreement should be reached on who should be explicitly named, with the remainder of the contributors named as

'*et al*', or a collective term such as 'Psychology Staff' might be used instead (although protection of the module on the workspace side of the database will ultimately rely on modules being linked with a Windows username and password– see below³).

- 3.2 Note that the module author(s) are not automatically assumed to be identical to the module tutors, e.g. at validation events. There can be several tutors delivering different occurrences of a module; tutors change from time to time; hourly paid tutors deliver modules sometimes. The module, however, remains linked with the given author(s) until it is revised.

4. **Module Title** (unlimited characters)

- 4.1 The module title should be as clear and unambiguous as possible, whilst also reflecting the description and purpose of the module and the learning to be achieved. When using the module title in other information (e.g. student programme handbooks, validation documents and module listings for SITS module records) it is important that the full and accurate title is employed. This will help to prevent errors occurring which can lead to problems with module records, students' module-taking information and results presented to assessment boards. The title can be used to sort the module entries in the online database.
- 4.2 The module title (and code – see below) will be recorded on SITS as 'subject to validation' (STV). The title can be changed during module development, and the final title is communicated by the Academic Quality and Standards Unit to the Student Data Management Unit post-validation.

5. **Module Code** (7 characters)

- 5.1 The module code is the normal seven-character string comprising the three letters of the pathway mnemonic (devised by the Head of Student Data Management at the time the pathway is being developed), followed by four digits, the first of which indicates the level of the module (1, 2 and 3 for undergraduate levels, 4 for postgraduate level modules and 5 for the masters dissertation or project). The module code is a unique value used as a defining key in the online module database and can be used to sort the modules.
- 5.2 True module codes should be obtained from the appropriate member of staff in Student Data Management⁴ and used in the online module database with a working module title. It is neither necessary nor advisable to use dummy module codes in the database such as XXX1234 because if many staff do this it leads to a proliferation of modules with XXX codes, inefficient searching, and the ensuing

³ At the time of writing this guide we are exploring the possibility of linking modules in the 'workspace' area of the database with at least one Windows username and password, so that only the original author(s) would be able to edit the module under normal circumstances. The absence of this information for many of modules in the database means that this protection cannot yet be implemented.

⁴ Currently Amy Blyth

danger that modules in development will be accidentally deleted or overwritten by other staff. It makes much more sense to work with actual module codes from the outset.

6. Pathway

Enter the full and proper name of the host pathway/programme only (e.g. Business Studies, Creative Writing, Internet Systems Development). No award titles or other text should be included. The pathway field can be used to sort the modules residing in the online database.

7. Level of Module (pre-set values in dropdown menu)

7.1 The level of a module is an indicator of its relative intellectual demand, complexity and depth of learning and of the degree of learner autonomy required. Level descriptors are statements describing the types of learning demand that the learner will encounter at different levels. Level is attributed to modules rather than to entire qualifications because the latter are usually made up of learning that has taken place at a number of different levels. Thus, the Framework for Higher Education Qualifications⁵ (FHEQ) developed by the Quality Assurance Agency for Higher Education (QAA) contains a range of 'qualifications descriptors' defining the highest level at which holders of the various qualifications can be expected to operate, predicated on the acquisition by the learner of a minimum number of credits at that level from the total credits achieved to gain the qualification.

7.2 The University has adopted the module level descriptors originally derived from the Northern Ireland Credit Accumulation and Transfer Scheme (NICATS) and which were subsequently incorporated into national credit guidelines⁶. In the integrated FE/HE framework, FE levels run from Entry Level, through Levels 1, 2 and 3 before arriving at HE Level 4 (first year degree equivalent) and progressing up to HE Level 8 (doctoral level). The full descriptions can be read in the NICATS project report⁷. They have been reiterated more recently in the Qualifications and Curriculum Authority and Learning and Skills Council joint publication⁸. Abbreviated descriptors are presented below.

⁵ Framework for Higher Education Qualifications in England, Wales and Northern Ireland. Quality Assurance Agency for Higher Education, 2001.

<http://www.qaa.ac.uk/academicinfrastructure/FHEQ/EWNI/default.asp>

⁶ Credit guidelines for HE Qualifications in England, Wales and Northern Ireland. Northern Universities Consortium for Credit Accumulation and Transfer (NUCCAT), 2001. <http://www.nuccat.ac.uk/credit.htm>

⁷ Report of the Northern Ireland Credit Accumulation and Transfer System (NICATS) Project 1996-1999. NICATS, 1999.

<http://www.bolton.ac.uk/Quality/QAECContents/ModuleAndProgrammeDesign/Documents/CreditLevels-NICATS6.pdf>

⁸ Principles for a Credit Framework for England. QCA and LSC, 2004.

http://www.qca.org.uk/downloads/8354_Principlescreditframework.pdf

- **Level FE3**

Also known as Level HE0, this defines HE entry level, i.e. 'A' level, Access, or HE Foundation.

Apply knowledge and skills in a broad range of complex activities with relevant theoretical understanding; independently access and present information; make informed judgements, selecting from a considerable choice of procedures in familiar and unfamiliar contexts; direct own activities; with some responsibility for the output of others.

- **Level HE4**

Also known as Level 1 or H1; exit qualifications at this level are described as Level C (Certificate) in the FHEQ and the benchmark qualification of a Certificate in Higher Education would normally be achieved following one year of full-time study or the part-time equivalent.

Acquire a broad knowledge base incorporating theoretical concepts and apply a broad range of specialised subject and key transferable skills; evaluate information, using it to plan and develop investigative strategies and to determine solutions to a variety of unpredictable problems; operate in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs.

- **Level HE5**

Also known as Level 2 or H2; exit qualifications at this level are described as Level I (Intermediate) in the FHEQ and the benchmark qualifications of Diploma of Higher Education and Foundation Degree would normally be achieved following two years of full-time study or the part-time equivalent.

Generate ideas through the analysis of concepts at an abstract level, with a command of specialist skills and the formulation of responses to well-defined and abstract problems; analyse and evaluate information; exercise significant judgement across a broad range of functions; accept responsibility for determining and achieving personal and/or group outcomes.

- **Level HE6**

Also known as Level 3 or H3; exit qualifications at this level are described as Level H (Honours) in the FHEQ and the benchmark qualification of an Honours Degree would normally be achieved after three years of full-time study or the part-time equivalent.

Critically review, consolidate and understand a systematic and coherent body of knowledge, utilising skills across an area of study; critically evaluate new concepts and evidence from a range of sources; transfer and apply diagnostic and creative skills and exercise significant independent judgment in a range of situations; accept accountability for determining and achieving group and/or personal outcomes.

- **Level HE7**

Exit qualifications at this level are described as Level M (Masters) in the FHEQ and incorporate the Postgraduate Certificate, Postgraduate Diploma and Masters Degree which would normally be achieved respectively following 17, 34, and 48 weeks of full-time study or the part-time equivalent.

Display mastery of a complex and specialised area of knowledge and skills, employing advanced skills to conduct research, or advanced technical and professional activity; accept accountability for all related decision-making.

- 7.3 Note that a particular module is uniquely defined at one of the levels above. Level descriptors are, in effect, 'generic assessment criteria' for modules at a particular level and can be used to help formulate the module's learning outcomes and assessment criteria. If it is desired to offer a module at more than one level it is therefore necessary to create a different module. Whilst many of the features of the 'new' module might be identical to those of the original, it is critical that the assessment criteria are written to reflect the alternative level at which the module can be taken (see 17 below).

8. Credit Value of Module (pre-set values in dropdown menu)

- 8.1 The number of credits associated with a module reflects the total amount of notional learning time considered necessary for the average learner to achieve the learning outcomes of the module. The convention adopted by the University follows the recommendations of the national credit consortia (see above) in that one credit is assumed to take the average learner at that level ten notional learning hours. An estimate of the notional learning time should ideally be devised 'bottom up', by thinking about how long the average learner will actually need to spend 'engaging with' the module in terms of class contact, guided and independent study, preparation of assessments, revision, tests and examinations. Experience has shown that this approach very often leads to a figure in excess of the anticipated credit value, so that some adjustment of expectations becomes necessary. In reality, there is inevitably also some 'top down' influence on the credit value of a module, driven by the need to restrict the total number of credits to what can actually be achieved within the constraints of the whole programme. The demands made by the module and/or the credit value of the module are therefore typically moderated, via a process of iteration, to deliver the required number of credits in a realistic way.

8.2 The commonly used credit values for University modules are available from the drop-down menu in the online specification template when creating or editing a module. If a value is needed which is not present then leave it blank for now, write it in after printing, and inform the software author in eLaB⁹.

9. Prerequisite Module Code(s)

Up to three module codes may be entered to identify any module(s) from the host pathway which it is necessary for a learner to have successfully completed prior to studying the current module. This facility should be used sparingly; it is not necessary, for instance, to list all Level HE4 modules from the pathway if the current module is at Level HE5 – it is assumed that learners will have completed prior levels or have been exempted from them on the basis of accredited prior learning. Similarly, it is redundant to list the core modules at one level as prerequisites for any and all modules at the next level. Only those specific modules which are directly linked to the current module by way of essential prior knowledge, understanding or skills should be listed as prerequisites.

10. Co-requisite Module Code(s)

Up to three module codes may be entered to identify any module(s) which it is necessary for a learner to study contemporaneously with the current module. This facility is not often used but might be valuable, for instance, where two optional modules at a particular level are interrelated but for good reason are not merged into a single module.

11. Barred Combination Module Code(s)

Up to three module codes may be entered to identify any module(s) from the host pathway which cannot be taken if a learner follows the current module. There are occasions when for good reason there is sufficient overlap in the learning outcomes of two or more modules to make it inappropriate for learners to take more than one of them.

12. Description and Purpose of Module (unlimited characters)

Often entitled 'aims', this section should contain a few, broad, plainly written statements encompassing the nature of and rationale for the module, summarising the module content, encapsulating the main aspects of the learning outcomes, and mentioning any special features of learning, teaching and assessment. The statements should be sufficient to provide the reader with a general understanding of what studying the module involves, without replicating the detail supplied elsewhere in the specification. The content of this section might be used where a succinct and user-friendly description of the module is required, e.g. a module handbook or guide, or a leaflet used to publicise the programme.

⁹ Currently Martin Jones

13. Indicative Syllabus Content (unlimited characters)

- 13.1 This section should provide a good indication of the broad subject topics and any particular treatment of them to be covered in the module. Whilst it is quite acceptable to present this in list form, a string of one- or two-word topic descriptors is not always very illuminating for the learner or for any new tutor who might teach the module – another crucial reason to have clarity and precision in module specifications. There should be sufficient information to help the reader appreciate what range of perspectives, theories, methods, techniques, skills, etc will potentially be dealt with in covering the topics.
- 13.2 On the other hand, the level of specificity should not be such that the module quickly becomes dated (of course historical coverage will be essential to some modules), or that delivery of the module cannot respond to current events or developments. Note that the heading includes the term ‘indicative’ to allow tutors some flexibility in selecting the topics and the way they are dealt with in different occurrences of the module over time. The module guide or handbook will normally provide a more detailed and specific description of the module content, usually given as a weekly topic listing, and this will be updated from time to time.

14. Learning, Teaching and Assessment (unlimited characters)

- 14.1 This section is about how the notional learning hours will be used, including both formal class contact and what learners will be expected to do outside of contact time in order to achieve the intended learning outcomes. A breakdown should be given of the total notional learning hours against the type of activity, e.g. class contact in lectures, seminars, tutorials, practical activities, supervision, etc; guided reading or independent project or other creative work; self-directed study; assessment-related tasks.
- 14.2 A brief rationale should be provided for each of the learning, teaching and assessment activities in the context of the intended learning outcomes. This is intended to point to the main reasons for engaging in the activities in terms of how they help to deliver the learning outcomes. Whilst it is generally regarded as good practice to have reasonable diversity of teaching and learning approaches within a module, care should be taken that those identified are both defensible and realistic. Otherwise, for example, you might raise the hopes of learners, or prompt questions from quality reviewers.
- 14.3 Apart from the subject-related knowledge, understanding and skills to be developed through the module, wider University policy and strategic developments should also be addressed where appropriate, e.g., stimulating enterprise and creativity, work-related learning, individualised and student-active learning, e-learning.

15. Learning Outcomes and Assessment Criteria

- 15.1 These aspects of modules typically seem to give module authors the greatest difficulty and yet they are considered to be the most important features, defining what outcomes the learner will be expected to achieve by way of knowledge,

understanding and skills, and how judgements will be made about the achievement of the outcomes.. Learning outcomes and assessment criteria are not the same thing as the syllabus or scheme of work. Different learning outcomes and assessment criteria could potentially be used in a module with the same syllabus content and *vice-versa*. Neither do learning outcomes or assessment criteria need to reflect absolutely every topic that will be mentioned during the module. They should however make it clear what the learner will achieve and the criteria by which this achievement will be judged.

16. Learning Outcomes

16.1 Learning outcomes describe what the learner should know, understand and be able to do on completion of the module. They should specify the results of the learning rather than the learning process itself. The key features of a clear learning outcome are:

- an action verb or phrase (e.g. '*critically evaluate*');
- an object (e.g. '*the roles*');
- a context and/or condition (e.g. '*which managers play in different organisations*').

16.2 For example:

When you have successfully completed this module you will:

- *Select and apply sophisticated techniques for analysing the efficiencies of energy usage in complex industrial processes*
- *Present an opinion orally in a group setting*
- *Describe and illustrate a range of electronic testing equipment and its uses*
- *Outline and discuss what is meant by market research and its applications*
- *Use a range of philosophical techniques to analyse and evaluate the logic of arguments*
- *Summarise the skills and knowledge necessary for competent advice giving*
- *Analyse the major influences on the work of a 19th century French novelist*
- *Take part in a laboratory group to tackle structured engineering problems using appropriate experimental techniques*
- *Compare and contrast the political contributions made by two 20th century British Prime Ministers*

- *Use a range of visual techniques to illustrate the main approaches to contemporary design in consumer goods packaging*
- *Identify and analyse core themes running through contemporary debates in critical psychology*
- *Describe the thermodynamic properties of fluids using standard engineering terminology*
- *Explain and evaluate the relationship between company directors and shareholders*
- *Construct a Visual Basic software programme designed to control a defined computer application*
- *Describe and illustrate the principles of behaviourist psychology*
- *Discuss and apply key concepts of reflective practice*
- *Review key legal, ethical and social policy issues relevant to health and social care*
- *Compare and contrast the major theories of hemisphere function in the human brain*

16.3 The choice of action verb(s) is important in precisely conveying the core of the learning outcome. The appropriateness of the verb will also depend on the content. Up to eight learning outcomes are allowed for in the module specification template but authors should normally aim for between four and six. If this proves difficult, then authors should try to express the outcomes at a higher level of generality and use the assessment criteria, of which there are normally up to three per learning outcome, to achieve the necessary level of specificity. It is not possible to describe precisely just how specific learning outcomes should be. There is a balance to be struck between the degree of specificity in a learning outcome and that provided by the assessment criteria. As a rule, the former are more general than the latter. The greater the specificity of learning outcomes and the greater the use of performance indicators (qualifiers) in them, the more the learning outcomes become like assessment criteria. It should also be borne in mind that each learning outcome should be explicitly pursued by students and that each assessment criterion should be covered by the given assessment methods. All of the learning outcomes associated with a module should normally be achieved before the learner is awarded the credit for the module.

16.4 Caution should be exercised when devising learning outcomes to ensure that they can actually result from the learning encompassed by the module and that they are realistic, achievable and appropriate to the level of the module. Remember that one credit is intended to consume ten hours of notional learning time.

- 16.5 An earlier version of the module specification template required learning outcomes to be allocated to one of four categories. Although the requirement to categorise learning outcomes in this way has been discontinued, authors may still find it useful to bear the categories in mind when devising module learning outcomes. Thus, Subject knowledge and understanding encompasses the range and depth of subject content learners would be expected to assimilate. Cognitive skills in the context of the subject cover the subject-specific forms and methods of enquiry that learners should master. Subject specific practical and professional skills relate to specialised techniques (e.g. use of equipment, interpersonal skills). Other key transferable skills are generic and applicable across a range of activities; they should only be included as learning outcomes if they are explicitly taught, developed or supported through the module. Nevertheless, for many modules it will be desirable to include assessment criteria which are not articulated in the learning outcomes and therefore not explicitly taught, developed, or supported through the module. For example you might assess the standard of written English, presentation of the information, use of references, etc, where you may not be teaching such skills, but where learners are expected to demonstrate them, having practised in previous modules.
- 16.6 The verbs generally used for learning outcomes provide some guidance as to what is required. The relevant section of the module template currently begins with the statement: 'when you have successfully completed this module you will.....' Here are some useful words to bear in mind at this point. This is an indicative list, by no means an exhaustive one.
- Analyse, Apply, Appraise, Assemble, Assist, Calculate, Carry out, Collect, Communicate, Compare, Conduct, Connect, Construct, Contrast, Control, Create, Criticise, Customise, Deal with, Define, Describe, Design, Determine, Develop, Differentiate, Discuss, Display, Draft, Edit, Establish, Evaluate, Examine, Explain, Explore, Extract, File, Gather, Generate, Grow, Handle, Identify, Illustrate, Install, Integrate, Interpret, Investigate, Judge, Maintain, Make, Manufacture, Measure, Modify, Monitor, Obtain, Organise, Originate, Perform, Plan, Practise, Prepare, Present, Print, Process, Produce, Propose, Provide, Realise, Recognise, Record, Rectify, Repair, Retrieve, Review, Search, Select, Set up, Solve, Store, Summarise, Survey, Synthesise, Take part in, Test, Transfer, Undertake, Use.*
- 16.7 These verbs may well be found in assessment criteria too, where their use helps to further refine the level of the module (see 17 below). The level of specificity in learning outcomes and assessment criteria will depend on the overall construction of the module.
- 16.8 Learning outcomes should be written with sufficient clarity to communicate adequately what a learner is expected to achieve. They should use clear and unambiguous language, be as simple as possible, eliminate unnecessary words and avoid vague verbs which might have different meanings. They should be balanced with respect to the required knowledge and skills, be logically sequenced and avoid duplication and inconsistencies. Outcomes should be of maximum relevance and utility and be motivational, rewarding and enriching for the learner.

16.9 In writing learning outcomes authors should test them out with colleagues and potential users. This might involve explaining and discussing them, obtaining feedback, soliciting users' interpretations, reviewing and refining the statements. Feedback will also be obtained about learning outcomes during their implementation and in the light of learner achievement.

16.10 Tips for writing learning outcomes

- Make sure they follow on from the preamble in the specification template;
- Keep the numbers down – most modules have between 5 and 8;
- Start out by thinking about the level(s) of learning expected of learners, i.e. information recall, comprehension, application, synthesis, evaluation;
- Be prepared to review them as you develop the other aspects of the module;
- Each outcome should be written at 'pass' level – not at the highest possible level of achievement;
- Use level descriptors to help locate and express outcomes at the right level;
- Consider the balance between subject, personal and professional learning – does this reflect what the module is about?
- Make sure your outcomes relate to overall programme learning outcomes;
- Can they be assessed, i.e. do they refer to concrete, observable behaviours rather than to internal cognitive processes?
- Are they all of equal importance? How will the learner know, eg is there a marking scheme for each module assessment?
- Whilst writing them, think about possible assessment criteria and methods;
- Could your typical learner achieve the outcomes in the timescale?
- Ask your previous learners what outcomes they identify and value;
- Ask colleagues if they understand your learning outcomes;
- Consider the context – what your learners have done before and what they will progress to.

16.11 Try to avoid

- Evaluative words like 'good' and 'adequate' – these belong in assessment criteria – if anywhere;
- Use of ambiguous verbs like 'understand', 'know', 'be aware of', 'appreciate' – unless the level of understanding, etc is going to be made abundantly clear in the associated assessment criteria – because these are internal, unobservable cognitive processes which might be better used in the 'description and purpose of the module';
- Educational jargon;
- References to the learning and teaching process, e.g. 'undertake a project' – it is probably the ability to plan and implement a project that you want the learner to gain, so put process matters in the learning and teaching section;
- Long lists of separate outcomes which are really just variations of the same outcome;
- Learning outcomes which are not easily assessed;
- References to specific information, e.g. particular theories and techniques – these should be included in the module syllabus;

- Learning outcomes which are too broad (they will not be assessable) or too narrow (leads to proliferation of outcomes);
- Learning outcomes that contain unnecessary references to dates or matters which will go out of date, e.g. particular government reports.

17. Assessment Criteria

- 17.1 Assessment criteria are used to judge as to whether the learner has achieved the associated learning outcome. They help to establish clear and unambiguous standards of achievement for each learning outcome. It is important to realise that a learner should evidence all of the assessment criteria associated with a given learning outcome before they can be said to have achieved the outcome.
- 17.2 Assessment criteria are NOT the same as assessment methods. The latter are the tools used to enable the learner to demonstrate that they have fulfilled the assessment criteria and through which tutors, markers and external examiners make the judgment that the learner has satisfied the assessment criteria. Reference within the assessment criteria to the assessment activities themselves should be avoided. The criteria should not be tied to specific assessment methods; rather they should be applicable and appropriate to a range of assessment methods.
- 17.3 Assessment criteria can be said to ‘unpack’ the related learning outcome into more concrete, observable behaviours that provide learners with a clear indication of what they have to do to demonstrate that they have achieved the related learning outcome. The presence of these behaviours should be subject to confirmation in assessed work and verification by internal and external peers. Assessment criteria commonly use action verbs which are readily demonstrable and which amplify the related learning outcome. Hence, verbs to avoid are those which refer to internal cognitive processes and are not directly observable and measurable, e.g. *understand, be aware of, think about, consider, reflect on*.
- 17.4 Professional judgement has to be used to obtain the right balance between too much and too little amplification of the assessment criteria, and in their interpretation. Nevertheless, the criteria have to contain sufficient detail to make them an effective tool for judging the standard of work produced by the learner. One tactic to help in writing criteria is to ask oneself: “*What would characterise a good piece of work produced in response to a learning outcome and what would distinguish it from a poor piece?*”
- 17.5 One should aim for as much clarity and specificity as possible in assessment criteria. This aids quality of judgement, reduces subjectivity and increases the chance of reliable, valid, consistent and therefore fair assessment. These features are clearly important to learners, tutors, markers and external examiners.
- 17.6 The key features of clear assessment criteria are:
- An action verb (e.g. ‘analyse’, ‘identify’, ‘create’, ‘obtain’, ‘show’);

- Content;
- Performance qualifier.

17.7 The performance qualifier can be an important contextual indicator of the degree of intellectual demand, complexity of process and learner autonomy. Assessment criteria should:

- Follow on from the preamble in the specification template;
- Relate closely to the associated learning outcome;
- Describe those aspects of the learning outcomes which will be assessed;
- Clearly define the level claimed for the module;
- Indicate what is required at 'pass' level, in a positive way; words like 'inadequate', 'inaccurate', 'limited', etc should be used to describe failing work (see below also);
- Help students know what they need to do - without telling them how to do it;
- Be understandable to all concerned;
- Be manageable in number – three per learning outcome is about right;
- Be distinct from each other;
- Be treated as an indication of achievement rather than as an exact measurement.

17.8 It should be clear to tutors, learners and others how and why marks and grades have been awarded and that they have been awarded fairly. An example follows.

LEARNING OUTCOME	ASSESSMENT CRITERIA
<i>When you have successfully completed this module you will:</i>	<i>To demonstrate that you have achieved the learning outcome you will:</i>
<i>1. Describe and discuss what is meant by market research and its applications</i>	<i>1.1 Outline the main methods of market research, identifying their appropriateness to particular situations</i>
	<i>1.2 Explain the applications and implications of market research</i>

17.9 The intended academic level of a module will influence the nature of the assessment criteria employed. For example it is by using appropriate assessment criteria that a learning outcome can be further specified in a way which demonstrably requires a greater or lesser degree of intellectual demand, complexity and depth of learning, and learner autonomy. The following suggested verbs for assessment criteria describe activities that provide evidence of different cognitive-intellectual skills. Bear in mind that the higher order evidence will subsume the evidence expected at lower levels.

17.10 The template statement currently reads: 'to demonstrate that you have achieved the learning outcome you will.....'

(a) Evidence of knowing

What do you want learners to know? This might cover, for example, knowledge of: terminology, specific facts, conventions, trends and sequences, classifications and categories, criteria, methodology, principles and generalisations, theories and structures.

Define, Describe, Extract, Identify, Know, Label, List, Match, Measure, Name, Organise, Outline, Present, Recall, Recognise, Record, Recount, Relate, Repeat, Reproduce, Select, State, Write.

(b) Evidence of comprehension

Can learners convey what they understand? For example by translating, interpreting or extrapolating from what they know.

Clarify, Classify, Compare, Contrast, Convert, Defend, Describe, Discuss, Distinguish, Estimate, Explain, Express, Extend, Find, Formulate, Generalise, Give examples of, Identify, Illustrate, Indicate, Infer, Interpret, Judge, Justify, Locate, Name, Paraphrase, Perform, Predict, Present, Recognise, Report, Represent, Restate, Review, Rewrite, Select, Summarise, Tell, Translate.

(c) Evidence of application of knowledge and understanding

Can learners use a theory or information in a new situation?

Act, Apply, Assess, Change, Choose, Compute, Construct, Demonstrate, Discover, Dramatise, Draw (up), Employ, Exemplify, Explain, Find, Give examples of, Illustrate, Interpret, Manipulate, Modify, Operate, Practise, Predict, Prepare, Produce, Relate, Select, Schedule, Show, Sketch, Solve, Use, Verify.

(d) Evidence of analysis

Can learners break down ideas and/or material into their constituent parts, showing how they are organised and relate to each other?

Analyse, Break down, Calculate, Categorise, Compare, Conclude, Contrast, Diagnose, Differentiate, Distinguish, Divide/subdivide, Elucidate, Examine, Experiment, Identify, Illustrate, Infer, Inspect, Investigate, Point out, Question, Recognise, Relate, Resolve, Select, Separate, Solve, Test

(e) Evidence of synthesis

Can learners work with elements of theories or materials and combine them in some way into new structures or patterns? For instance can learners produce a novel communication in this field, develop a plan or a proposed set of operations and derive a set of abstract relationships?

Account for, Alter, Argue, (Re-)Arrange, (Re-)Assemble, Combine, Compile, Compose, Conclude, (Re-)Construct, (Re-)Create, (Re-)Define, Derive, Design, Develop, Devise, Distil, Explain, Engender, Enlarge, (Re-)Formulate, Generalise, Generate, Hypothesise, Integrate, Manage, Modify, Plan, Prepare, Present, Propose, Put together, Relate, (Re-)Order, (Re-)Organise, Report, Restate, Revise, Select, Set up, Structure, Suggest, Summarise, Synthesise, Teach, Tell, Write.

(f) Evidence of evaluation

Can learners construct an argument, compare theories and evidence, and make judgements based on evidence?

Appraise, Assess, Choose, Compare, Conclude, Contrast, Criticise, Debate, Defend, Determine, Discriminate, Estimate, Evaluate, Explain how, Judge, Justify, Measure, Question, Rate, Resolve, Review, Revise, Score, Select.

(g) Further possible verbs for assessment criteria

Achieve, Adapt, Administer, Agree, Allocate, Analyse, Answer, Carry out, Chart, Check, Co-operate, Collect, Combine, Communicate, Complete, Configure, Confirm, Connect, Consult, Contribute, Control, Cross-reference, Deal with, Delete, Demonstrate, Display, Distribute, Draw conclusions, Edit, Encourage, Ensure, Enter, File, Finish, Follow, Gather, Give, Grow, Handle, Implement, Improve, Include, Incorporate, Inform, Install, Interrogate, Isolate, Keep, Listen to, Log, Maintain, Make, Meet, Minimise, Monitor, Obtain, Offer, Open, Originate, Pass, Plot, Predict, Price, Print, Prioritise, Process, Protect, Provide, Realise, Refer, Reject, Respond, Retrieve, Return, Save, Seek, Set up, Specify, Store, Substitute, Suggest, Survey, Take part in, Transfer, Undertake, Update.

18. The Relationship between Learning Outcomes and Assessment Criteria

18.1 There should be one or more assessment criteria associated with each learning outcome, i.e. a 'one to many' mapping. Although learning outcomes can be relatively broad, assessment criteria should be sufficiently specific to allow all concerned to judge clearly and unambiguously whether or not a learner has satisfied them. It may be possible for learning outcomes to be similar in modules at adjacent academic levels, as long as the assessment criteria are distinct and relate appropriately to the relevant level descriptor (see 7 above).

- 18.2 Achievement of all the assessment criteria defines the minimum threshold for awarding credit for the module. Although learners' achievements are graded to reflect performance beyond the minimum achievement, this is essentially for feedback and classification purposes and is not necessary for the award of credit.
- 18.3 Furthermore, it is not assumed that the learning outcomes and assessment criteria must cover the syllabus exhaustively. They should define the minimum that we should reasonably expect of a learner in order to grade them as a pass and award them the credit for a module.
- 18.4 Sound 'how to' guidance focussing on the practicalities (as opposed to the theory) of learning outcomes, assessment criteria and the grading of achievement, is provided in Rosie Bingham's papers on the subject^{10,11,12}. Another short introductory article which is worth a look is by Norman Jackson, James Wisdom and Malcolm Shaw in the 'Guide for Busy Academics' series¹³.
- 18.5 One of Rosie Bingham's guides contains the following table to aid module authors in their thinking about the development of, and relationship between, learning outcomes, assessment criteria and performance grading.

¹⁰ Learning Outcomes and Assessment Criteria. Sheffield Hallam University, 2001
<http://www.bolton.ac.uk/Quality/QAECContents/ModuleAndProgrammeDesign/Documents/LearnOutcomesAssCriteria.pdf>

¹¹ Learning Outcomes: A Guide. Sheffield Hallam University, 1999

¹² Assessment Criteria: A Guide. Sheffield Hallam University, 1999

¹³ Using Learning Outcomes to Design a Course and Assess Learning. LTSN Generic Centre, 2003

Start here: 1. Learning Outcome	Assessment criteria		
	2. Assessment Criterion	3. Pass/threshold level descriptor	4. Differentiated descriptors
a statement of what a student should know, do or understand	a statement of which aspects of student work will be judged, in relation to the Learning Outcomes	a statement of the typical pass requirement, in relation to the Learning Outcomes	a description of what the student must do to achieve a particular grade/mark against the assessment criterion
By the end of the unit, a student should be able to.....	Student work will be judged on	For a typical pass the student will.....	In order to achieve a particular mark/grade (eg degree classification) the student's work will.....
The critical question is: Where do you want the student to get to?	The critical question is: On what basis will you judge whether they've got there?	The critical question is: What must they do to get there, ie to meet the criterion?	The critical question is: How will you know how well they have got there?
For example: By the end of the unit, a student should be able to.... <i>locate and select from information sources (Level 1)</i>	Student work will be judged on..... <i>the range of information sources and the relevance of material selected for their needs</i>	For a typical pass, the student will <i>locate the main sources of information and select those most relevant to their own needs.</i>	In order to achieve a 1, 2.1, 2.2,3rd, student's work will ... <i>1st - locate a wide range of sources, identifying appropriateness of sources for own needs. Select and justify, making explicit, their choices,</i> <i>2.2 - locate a wide range of sources and select those most relevant, in relation to own need. Justify, making explicit, their choices</i> <i>2.2 - locate a range of sources and select those most relevant, clearly identifying own needs</i> <i>3rd - locate main sources and select those most relevant to own needs</i> <i>below 40% - limited sources located. Inappropriate or inaccurate selection</i>

NB Columns 1 & 3 indicate the standard required. Column 2 is a crucial part of the process of developing Columns 3&4. Column 4 is key information for students and colleagues, to help clarify and discuss expectations of achievement, and for giving feedback.

- 18.6 Some examples of learning outcomes and assessment criteria are provided below.

Example of learning outcomes and assessment criteria for a module entitled 'Personal Development Planning'

LEARNING OUTCOMES	ASSESSMENT CRITERIA
<i>When you have successfully completed this module you will:</i>	<i>To demonstrate that you have achieved the learning outcome you will:</i>
1. Undertake a personal SWOT analysis	1.1 Recognise own strengths in the workplace
	1.2 Evaluate own weaknesses in the workplace
	1.3 Appraise the opportunities available to the organisation and the individual through recognition of personal strengths and weaknesses
	1.4 Determine the threats facing the organisation and the individual through recognition of personal weaknesses
2. Undertake a STEP analysis	2.1 Recognise the range of sociological effects on the individual and the organisation
	2.2 Evaluate the range of technological effects on the individual and the organisation
	2.3 Determine the range of political effects on the individual and the organisation
3. Undertake a personal training needs analysis	3.1 Evaluate personal training needs arising from SWOT and STEP analyses

Example using a skill which is less 'visible'

LEARNING OUTCOME	ASSESSMENT CRITERIA
<i>When you have successfully completed this module you will:</i>	<i>To demonstrate that you have achieved the learning outcome you will:</i>
1. Explain and evaluate the relationship between advisors' roles, responsibilities, skills and knowledge and their impact on competent advice giving and referral	1.1 Outline the main roles and responsibilities of the advice giver
	1.2 Identify the skills and knowledge necessary for competent advice giving
	1.3 Evaluate the impact of advisor skills and knowledge on the provision of advice
	1.4 Explain the purpose and importance of a referral policy

18.7 Amplifying criteria to test achievement of the same learning outcome at different levels of performance (performance criteria)

Although the current module specification template does not require it, further clarity and transparency can be gained by differentiating assessment criteria according to levels of achievement. They answer the question: “What will the learner have to do to achieve a certain standard?” Examples are given below.

- 18.8 Given the learning outcome: “*The learner will present written work according to academic convention*”, one of the assessment criteria could be: “*The learner will show evidence that their work adheres to the conventions of standard written English*”. Further performance criteria could then be specified via descriptors indicating different levels of achievement, e.g.

70%+	60-69%	50-59%	40-49%	Below 40%
<i>Fluent writing with distinct personal style; correct spelling, grammar and punctuation</i>	<i>Fluent writing with correct spelling, grammar and punctuation</i>	<i>Understandable, with competent use of English; generally accurate spelling, grammar and punctuation</i>	<i>Understandable but flawed use of spelling, grammar and punctuation</i>	<i>Difficult to understand; poor use of English; spelling, grammar and punctuation errors</i>

- 18.9 Given the learning outcome: “*The learner will explain and justify their chosen research method*”, one of the assessment criteria might be: “*The learner will provide an appropriate explanation and a clear and relevant justification*”. This criterion could be further differentiated by performance as follows:

Below 40%	40-49%	50-59%	60-69%	70% +
<i>Brief, inaccurate and ambiguous description with unclear explanation and limited justification.</i>	<i>Appropriate explanation with clear and relevant justification of the chosen research method.</i>	<i>Relevant, clear and logical explanation and justification; strengths and weaknesses of chosen method are considered.</i>	<i>Relevant, clear, logical and detailed explanation; chosen method is fully evaluated.</i>	<i>Relevant, clear, logical and detailed explanation, which shows insight; alternative methods are considered and evaluated.</i>

- 18.10 If you construct such performance criteria for each assessment criterion then this will provide you with a marking scheme. Such a scheme could be created to encompass each of the assessment criteria specified in a module and then adapted to apply to each of the individual assessments contributing to the overall

module mark. Clearly, apart from informing learners what they need to do to achieve, schemes like this can readily and usefully be applied to provision of feedback to learners on their assessed work. Note that relatively few broader bandings (e.g. five in number) give markers greater scope. If you break criteria down into very small units for marking (e.g. five marks for each of 20 elements), the overall effect can be to reduce the spread of marks, i.e. many learners will achieve a similar final mark.

- 18.11 As you move up the grades, avoid introducing new criteria into the descriptors. The main aspects of the criterion should follow up the levels, with an increasing demand in that particular aspect. The following are some examples of ways you could move up the levels: increasing the degree of autonomy required - e.g. the level of independence or decision-making needed, initiative; broadening the situation/context in which the student applies the learning - e.g. a pass might be context-specific, higher grades might draw on wider experiences/sources; increasing the range/number of elements you expect the student to use - e.g. using a wider range of presentation techniques, combining more problem solving techniques, using a combination of skill elements. You might want to mix them e.g. increasing the autonomy in a wider range of contexts.
- 18.12 Remember to start with the learning outcomes, identify your own implicit criteria which influence your judgement, look at existing examples of criteria, determine other criteria, e.g. academic skills, if appropriate, and identify the differences between grades or marks.

19. Assessment

There are four entries required here for each item of assessment; up to four items of assessment are provided for in the specification template. It is worthwhile module authors familiarising themselves at the outset with the University's Assessment Process Handbook¹⁴ and Good Assessment Guide¹⁵, before deciding upon the methods to be employed in the module.

Type is selected from the pre-set values in the dropdown menu which contains:

- AO - Attendance only
- CW - Coursework
- EX - Examination
- ICA - In-class Assignment
- PRA - Practical work
- PRE - Presentation
- IS - Independent Study, Dissertation or Project

Description (xxx characters) should provide an explanatory indication of what the item of assessment actually involves, e.g. *Essay of 2000 words, Three-hour open book examination, Dissertation of 10,000 words.*

¹⁴ Assessment Process Handbook: A Guide to Good Practice.

<http://www.bolton.ac.uk/Quality/QAECContents/APPR/Documents/pdf/AssessProcessHandbook.pdf>

¹⁵ Good Assessment Guide

Percent of Mark requires the author to enter the percentage of the total mark for the module which is allocated to the item of assessment. Percentages are entered from the preset values in the dropdown menu.

Learning Outcomes is used to indicate which learning outcomes are being tested via the item of assessment. A cross appears in the dropdown menu and is entered under the item of assessment against the learning outcome(s) tested by the item.

20. Indicative Reading

Up to 15 titles should be provided. Authors should ensure that the normal conventions are adopted in listing the material, e.g. books, chapters, journal articles, web sites, etc. Learning Support and Development publishes ample guidance on the matter¹⁶.

21. Module Type

The type of module is entered by selecting from the pre-set values in the dropdown menu. The following selection is available:

- DISS - DISSERTATION
- DOUBLE - DOUBLE MODULE
- FLDW - FIELDWORK
- HALF - HALF MODULE
- INDS - INDEPENDENT STUDY
- OTHR - OTHER
- PLAC - PLACEMENT
- PRAC - PRACTICAL
- PROJ - PROJECT
- STAN - STANDARD MODULE
- STAN+ - STANDARD PLUS MODULE (e.g. 1.5 x standard)
- WORK - WORKSHOP

22. Module Length

Two values are available from the dropdown menu, '1' is used for modules lasting a single semester and '2' is used for 'long thin' modules lasting the whole academic year.

23. Host Subject Group

Enter the relevant Department/Subject Group from the dropdown menu.

¹⁶ <http://data.bolton.ac.uk/bissto/>