

Programme Assessment Strategies
Funded by the National Teaching Fellowship Scheme

Brunel University

Case study

Chris Rust – Oxford Brookes University
Derek Milligan – Brunel University

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Brunel University Case Study

1 Introduction

This case study forms part of the National Teaching Fellowship Scheme (NTFS) Programme Assessment Strategies (PASS) project. The PASS project aims to provide suitable evidence-based guidance and exemplars/examples to develop and implement effective cross-programme or programme-based assessment strategies.

One major argument about the problems of current assessment practices is the linkage between study hours and credit, especially in unitized/modular programmes, with the concomitant proliferation of assessment tasks to validate the students gaining the associated credit. This is an institutional case study concentrating on changes in programme and assessment regulations at Brunel University which enable this direct linkage to be broken, and considers the subsequent changes made by a number of their programmes which these changes have enabled. So far three subject areas (departments) have made use of the changes - Mathematics, Biosciences, Physiotherapy - and changes to Occupational Therapy programmes are in the process of being approved. Two of these – Mathematics and Biosciences - can also be found as individual PASS case studies nos. 2 and 5 (see <http://www.pass.brad.ac.uk/case-studies.php>)

2 Changes in institutional Assessment Regulations

In 2009, Brunel made a number of changes to their undergraduate programme and assessment regulations¹, offering ‘freedoms’ for programmes teams to make significant changes in the design of their programmes - but only if they choose to. In Brunel’s previous regulations, each level of a programme was required to normally consist of six 20 credit modules: each module would carry out the assessment leading to the associated 20 credits. In other words, as is traditionally the case, assessment and blocks of study (modules) were coterminous, intrinsically and inseparably linked.

The regulatory changes introduced in 2009 offer programmes two linked freedoms:

- The possibility of having separate study and assessment blocks, in addition to, or instead of, keeping traditional modules (now called modular blocks).
- The possibility for assessment blocks to range in size from 5 – 40 credits and for the size of study blocks to be unconstrained.

2.1 How does it work?

For each level, the normal 120 credits should be seen to be divided into 120 credits of assessment and 120 credits of study. As is already the case, the study credits for a block reflect the total expected student study time necessary for that block. Assessment credits, however, theoretically

¹ <http://www.brunel.ac.uk/about/administration/university-rules-and-regulations/senate-regulations/undergraduate-programmes-2009-onwards>

have no time associated with them, but reflect the relative weight of the block in terms of the complexity and importance of the assessment being undertaken. For every normal-length undergraduate Level, the number of assessment and study credits must both add up to 120. If the programme retains some conventional modular blocks these will have exactly the same number of assessment and study credits (the two are coterminous for a modular block). Where a Level is longer than the norm, study credits would be expected to exceed 120 to reflect the increased total student study time, whilst the assessment load need not exceed the minimum 120 assessment credits. The Physiotherapy programme diagrammed in Appendix 3 is such a programme, with placements extending into the summer period.

The whole purpose of these changes is to allow programmes to have, at least some, study blocks – where there is only formative and no summative assessment (and therefore only carry study credits) – and assessment blocks (assessment credit only) where the assessment task assesses learning from across a number of study blocks. And the assessment blocks, collectively, must explicitly test all of the intended learning outcomes that are explicitly supported by the study blocks. Thus the system enables integrative assessment of learning at a programme level.

So, for example, a Level might look like this:

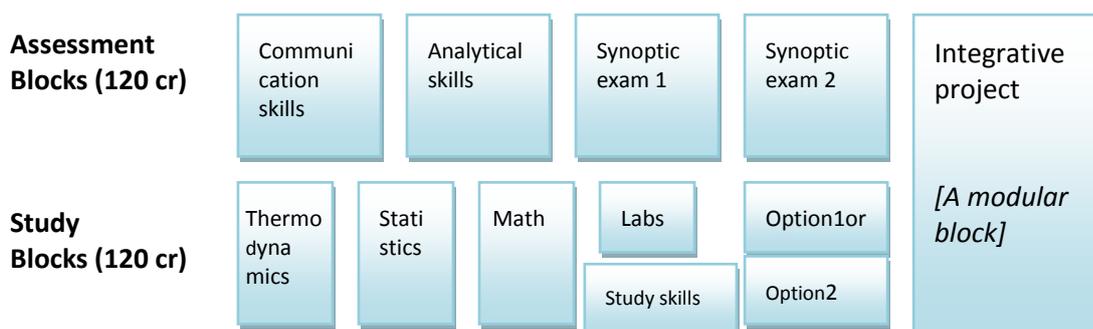


Figure 1 - Example of a Level

Options within a programme are accommodated in one of two ways: either each possible option is an optional modular block, or each option in an option group is an optional study block linked to one compulsory generic assessment block.

Credit is handled on transcripts by the grades in the assessment and modular blocks forming 'the results', and the study and modular blocks representing 'areas of study'. In credit transfer, the credits transferred are the assessment credits (assessment blocks and modular blocks). However, as the new Brunel regulations have also removed the concept of the "award" of credit, what is actually transferred for each block of assessment is a grade in a volume of credit.

The course structures for the three programmes discussed below are provided as Appendices 1-3. The following diagram gives one example – the first year of the BioSciences degree. The assessment blocks include a synoptic exam to provide an integrated assessment of work across this stage of the course.

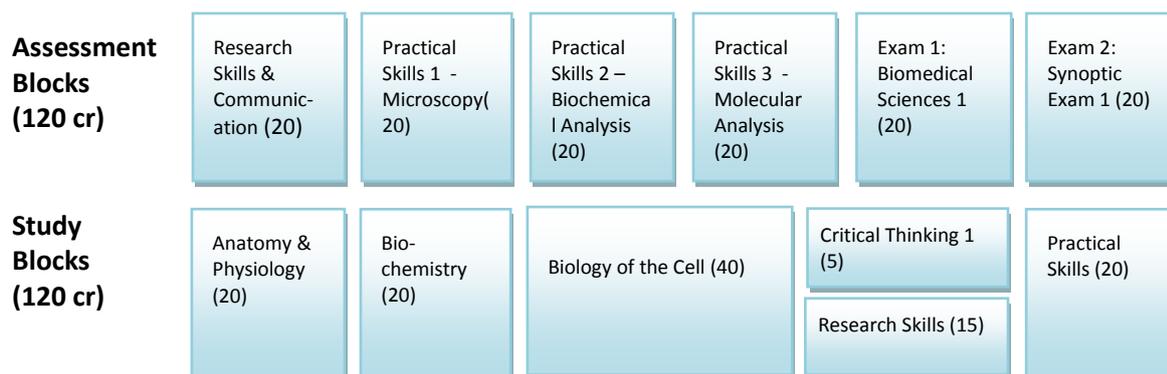


Figure 2 - BSc BioSciences Level 1 Structure

3 Reported benefits

3.1 Mathematics

Mathematics was the first area to take up the opportunity offered by the change in regulations. In years one and two on their revised programmes, only 40 credits in each year are in modular blocks, the remaining 80 are attached to study and assessment blocks. The final year remains unchanged because students have a range of optional modules, where they can pursue different topics in depth, and it would not make sense or be possible to create generic integrative assessments. And the final (compulsory) module was already a final year project, which integrates their learning from the whole programme.

The course team made the changes, at least in part, because they had too often experienced individual students asking, in regard to a piece of assessment on a module, whether they were allowed to use things they had done on another module. They wanted to find a way of breaking down this ‘compartmentalisation’ in the students’ thinking, and the possibility of integrative assessment tasks was therefore very attractive. And the students on the new course have actually commented that they can see how the new assessment blocks are bringing their learning together from the various study blocks. Linked to this notion of ‘compartmentalisation’ on the old modular course, teaching staff were also concerned that students were always in “revision mode” for the module assessments but that this learning seemed to be very short-lived and there was a problem with how much of the knowledge was retained. Staff report that the students are now better at ‘carrying over’ their learning from year one to year two.

Another reported benefit has been that they believe they are now able to soften the ‘jump’ from school to university regarding the difference in the way students are taught. Now, for the first three weeks, rather than lectures, the students are put into small groups in a study block, with one class teacher for all topics. They believe they have also broken the pattern of learning the students have developed in school where everything is focused on the next assessment. Now, with the gap between study blocks and the assessment block there is a less direct relationship and they believe that this has made it harder for students to strategically play the assessment system.

There is also some evidence that there has been some saving in staff time spent on assessment.

3.2 Biosciences

Biosciences took the opportunity for similar reasons to Mathematics – they believed that their students were missing ‘the big picture’ in terms of what they were learning. And they were especially concerned about over assessment – in terms of the amount of assessment they were doing (e.g. weekly lab reports) – while not sufficiently challenging the students with more complex assessment tasks that would develop and test the students’ critical skills.

In their redesigned programme there has been virtually no change in the content covered; all the changes have been to the assessment. And in the three years of their new programme there is only one remaining ‘traditional’ module – the final year project. All the rest are separate study and assessment blocks. And this has resulted in a 66% reduction of the number of assessed pieces of work (but it should be noted, not such a significant reduction in staff assessment time because the assessment tasks are now generally larger).

It is also important to note that, despite the fears of some staff, there has been no reduction in student attendance in the study blocks – despite the fact that they are not directly assessed – nor any refusal to engage in the now ‘formative only’ work set in the study blocks. In fact, staff report that students are enjoying the practicals more and finding them more useful because there is now no pressure because there are no marks attached. So students are prepared to ask questions and admit things they don’t know without feeling ashamed.

3.3 Physiotherapy

Physiotherapy is the only one of the programmes that does insist on attendance in the study blocks (80% minimum) because they see this as part of the requirements of ‘professional behaviours’. They see the main benefits of the new freedom has been that, in the traditional system, they had to assess every module, however artificial that assessment might have been, whereas now they can leave assessing what has been learnt in a study block until an assessment block when the student is on placement and assess it in an authentic practice setting.

They also claim to have achieved a reduction in assessment workload as a result of the changes.

4 So what are the problems?

Talking to the staff involved in these programmes, they are all very positive about the new freedoms and what they have allowed them to do. In all three, only two real problems emerged:

4.1 Difficult to explain and initially understand

The main difficulty, cited by all three programmes, is that it is initially difficult to understand – in terms of exactly what is possible, and how it all might work in practice. And it is especially difficult to explain it to others, be they colleagues of professional bodies. It was also suggested that this difficulty may also result in staff unnecessarily overcomplicating their explanations to students. In fact, the students appear to have found it less difficult to understand – probably because they have not known any other system or way of doing things.

4.2 The need for the whole programme team to be committed

The second potential problem, identified by all of the three programmes, is the need to have the commitment of the whole programme team. And the whole team has to be involved in the design of the programme and especially the design of the assessment blocks, given that they have to assess the integrated learning from a number of different study blocks. The potential benefit, of course, is that the result can be that it successfully brings the team together and makes them much more of a team.

5 Other possible issues

5.1 Exchange students

This has apparently not been a problem so far and, of course, where exchange students come to study a whole year of a standard programme there would never be a problem. Where an exchange student comes to Brunel and wishes to select a non-standard mix of blocks they would negotiate those choices to ensure a coherent individual programme of study and assessment, where all of the study blocks required to support the chosen assessment blocks are available to the student.

But given that Brunel foresees different programmes making use of the freedoms in increasingly different ways and to different extents, there may well be cases in the future where what an exchange student wants to do initially is not possible. However, that is also true for module-based provision where timetabling clashes may prevent the selection of a particular non-standard combination of modules.

In terms of issues around potential mismatch of total study credit and total assessment credit for a non-standard, but coherent, set of blocks - in particular in an ECTS context - the aim would always be to match total study and assessment credits in order to avoid confusion.

Brunel has recognised that options in a programme already introduce this possibility of mismatch and therefore programme designers are required to either define options as modular blocks or to define a generic assessment block to coincide with combinations of option study blocks. The new freedoms allow custom approaches (e.g., customised assessment blocks) to accommodate exchange students' special requirements if the demand is there.

5.2 Crossing of Levels

As the new regulations are currently formulated, assessment blocks cannot cross levels given that all 120-credits of assessment blocks in a Level are taken into account for Level-Level progression decisions.

Study blocks technically could cross Levels - but to do so might be somewhat artificial as study blocks are meant to be convenient and meaningful partitionings of learning resources. One would probably also have to divide the supported learning outcomes for such a study block into Levels as the principle is that the assessment blocks in a Level assess the Learning Outcomes of that Level and the study blocks in a Level support the achievement of those assessed Level Learning Outcomes. However it is possible that a study block might span say Level 1 and Level 2 and that the LOs that it supports are not assessed until Level 2. Indeed this is the case in some Schools for sandwich

placement preparation activity. Another issue is that the institution's student management system (SITS) does not support cross-Level modules/blocks - and therefore even though a study block does actually span Levels it is probably always going to be easier administratively to split it into part 1 and part 2 (and even part 3) even if pedagogically it is a continuum.

5.3 Reduction of Plagiarism

It has been suggested that another benefit that might follow from the separation of study blocks from assessment blocks is that it might reduce plagiarism by making it harder. So far, however, no such reduction has been identified. But at Brunel, historically, very low numbers of plagiarism cases emanated from the three subjects concerned.

Once programmes from historically more plagiarism-prone areas of the University make use of the new freedoms it will be possible to test this hypothesis.

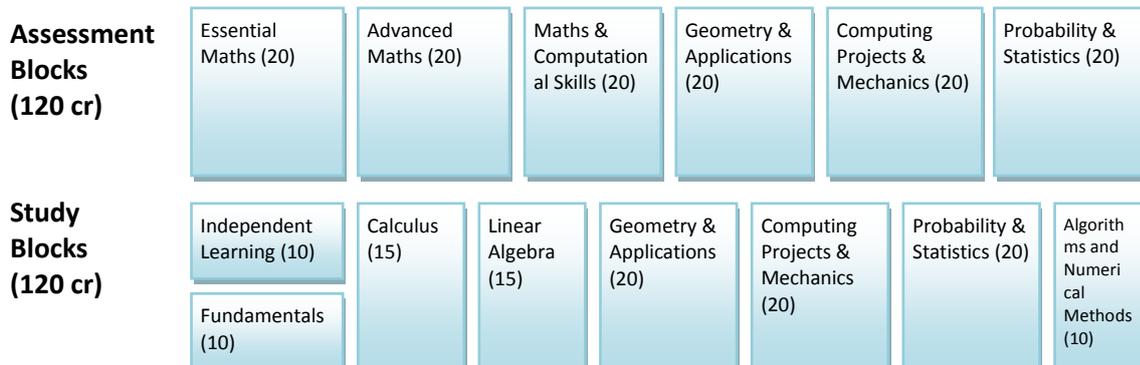
6 Conclusion

A major barrier to the development of integrative programme assessment in modular/unitized courses has undoubtedly been the connection between credit and units of study. In the new freedoms within their regulations, Brunel appears to have found a creative solution to this problem – and certainly 'the early adopters' are very positive about the changes that have been made possible.

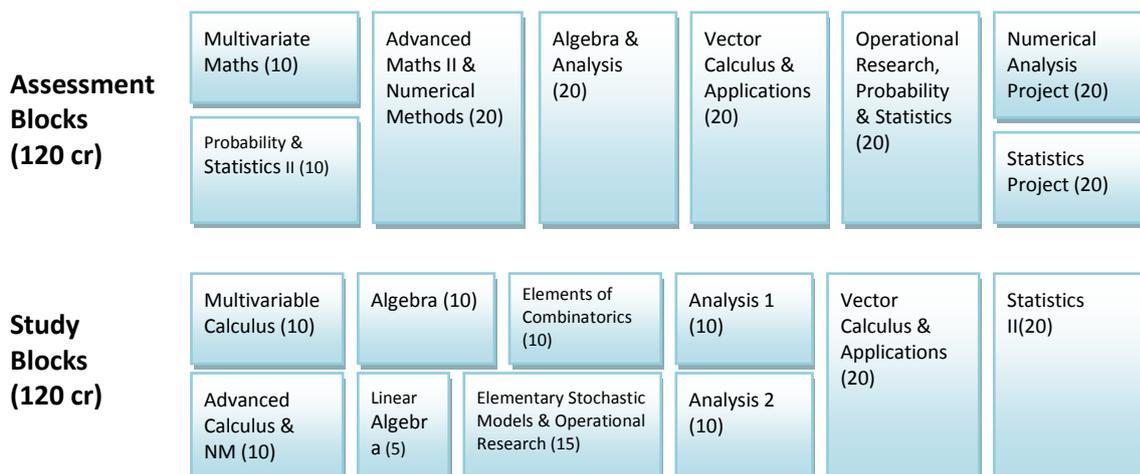
7 Contact

Derek Milligan
Director of Academic Programme Development
Brunel University, Uxbridge Middx.
derek.milligan@brunel.ac.uk

Appendix 1 - Brunel University BSc Mathematics Programme Structure



BSc Mathematics Level 1 Structure



BSc Mathematics Level 2 Structure



BSc Mathematics Level 3 Structure

Appendix 2 - Brunel University BSc BioSciences Programme Structure

Assessment Blocks (120 cr)	Research Skills & Communication (20)	Practical Skills 1 - Microscopy (20)	Practical Skills 2 - Biochemical Analysis (20)	Practical Skills 3 - Molecular Analysis (20)	Exam 1: Biomedical Sciences 1 (20)	Exam 2: Synoptic Exam 1 (20)
	Anatomy & Physiology (20)	Bio-chemistry (20)	Biology of the Cell (40)		Critical Thinking 1 (5)	Practical Skills (20)
Study Blocks (120 cr)					Research Skills (15)	

BSc BioSciences Level 1 Structure

Assessment Blocks (120 cr)	Data Interpretation and reporting (20)	Data Analysis and Presentation (20)	Primary Literature Interrogation and Synthesis	Professional Skills Portfolio (20)	Exam 1: Biomedical Sciences 2 (20)	Exam 2: Synoptic Exam 2 (20)
	Cell & Molecular Biology (20)	Genetic Engineering & Immunobiology (20)	Human Disease (20)	Critical Thinking 2	Option 1 / Compulsory 1 (20)	Option 2 / Compulsory 2 (20)
Study Blocks (120 cr)				Career Skills (15)		

BSc BioSciences Level 2 Structure

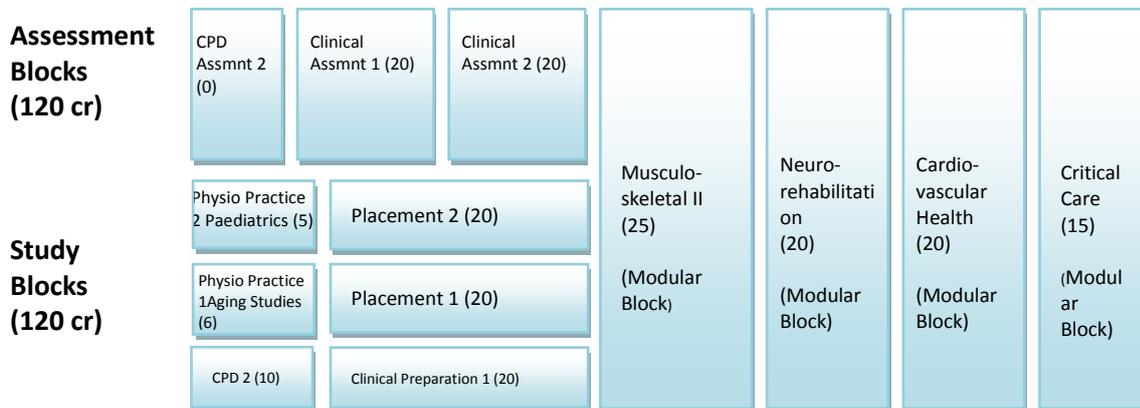
Assessment Blocks (120 cr)	Scientific Communication (20)	Problem Solving & Data Analysis (20)	Exam 1: Biomedical Sciences 3 (20)	Exam 2: Synoptic Exam 3 (20)	Final Year Project (40) (Modular Block)
	Option 1 (20)	Option 2 (20)	Option 3 / Compulsory 1 (20)	Option 4 / Compulsory 2 (20)	
Study Blocks (120 cr)					

BSc BioSciences Level 3 Structure

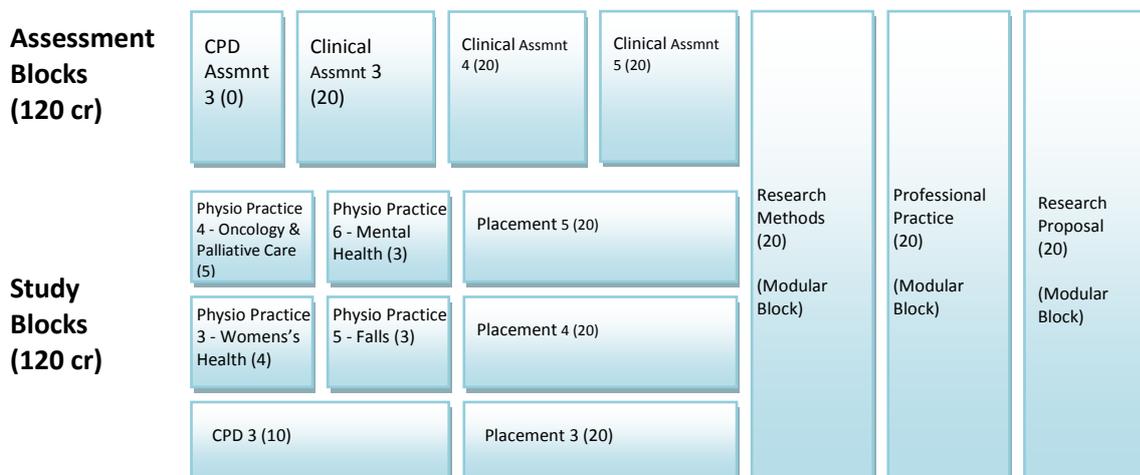
Appendix 3 - Brunel University BSc Physiotherapy Programme Structure



BSc Physiotherapy Level 1 Structure



BSc Physiotherapy Level 2 Structure



BSc Physiotherapy Level 3 Structure