

# PASS Case Study 2:

## Summary

Variety of PFA	In the first two years of the course, assessment blocks (including synoptic examinations at every level of the course) focus on the integration of both specific and general course outcomes, and are specified separately from the formal teaching (study blocks). Assessment blocks can relate to a number of study blocks.
Course	BSc Hons Mathematics (Financial Mathematics, Mathematics with Computer Science, Mathematics and Computing, Mathematical and Management Studies, and Mathematics and Statistics with Management all share the PFA part of the straight Maths course, as 80 credits in level one and either 80 or 60 credits in level two).
Faculty and institution	School of Information Systems, Computing and Mathematics Brunel University
Type/duration	3 year undergraduate/ 4 years with thick sandwich
Timing	Full programme introduced in September 2010

## Overview

The BSC course in Mathematics have been revised with major structural changes in years 1 and 2 of the course, as described below. Year 3 of the course follows a conventional modular pattern. There is a major project in the final year which does serve in some respects as a “test of graduateness” but this is not currently set up to test the complete range of programme outcomes. The redesign aimed to resolve several problems with student performance. Firstly, it was felt that students were focused on getting through specific assessments and not building up their expertise in a more integrated fashion. As a result, some important skills and techniques were not being fully developed, e.g. the use of software packages like SPSS. Secondly, students were not retaining and carrying over important ideas and techniques from year to year.

The revised course takes advantage of new assessment regulations at Brunel which allow courses to specify teaching (study blocks) and assessment tasks and activities (assessment blocks) separately so that one assessment block can relate to several study blocks. Courses can also include conventional modules where the study and assessment blocks completely coincide.

Assessment blocks have been introduced in years 1 and 2 which package up topics such as the use of statistical software. This has reduced the overall amount of summative assessment although there are some tests where students are able to retake them until they reach the pass standard. Other changes to the course include integrating the placement

which now contributes to the overall degree classification. There have also been some changes to teaching methods, e.g. more use of small-group teaching and the introduction of "daily work" in the 1st few weeks of term 1 before moving into more conventional lecture/seminar/workshop delivery.

The revisions to the course have been welcomed by the majority of staff who have noted improvements in student performance.

## Main objectives

- To enable students to build up their mathematical expertise in a more integrated way.
- To enable better assessment of topics and skills which cut across conventional module boundaries.
- To ease/shift staff workload and provide better student support.

## PFA format

- Assessment blocks relate to one or more study blocks.
- Assessment blocks package up topics to test important skills, e.g. use of statistical software.

## Key assessment framework/regulations

- New institutional regulations introduced for 09/10 academic year.
- These require all courses to specify study blocks (teaching and study), assessment blocks (no more than 40 credit points each), and modules (where study and assessment blocks coincide completely).
- Option courses must be available as modules.

## Main impact on staff

- Summative assessment load reduced in years 1 and 2.
- Year 1 staff who were centrally involved in the redesign have been committed and enthusiastic
- Year 2 staff who were not involved in the original design have expressed some confusion.

## Main Impact on students

- Year 2 students seem to "know the basics better" than previous cohorts (but this may also be attributable in part to the changes in teaching methods).

## Further details

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Further information	