
BOARD OF STUDIES IN MATHEMATICAL SCIENCES

EXAMINATION GUIDELINES

The following guidelines have been agreed by the Board of Studies in Mathematical Sciences (BSMS) and apply to all modules owned by the Board. Under the current University Code of Practice on Assessment (UCoPA), the BSMS is responsible for all modules which it provides irrespective of the Board of Examiners which has responsibility for the degree programmes to which they contribute. These guidelines describe how the BSMS carries out its responsibilities as laid down in the Code of Practice which can be found at the Teaching Quality and Support Division (TQSD) web site: www.liv.ac.uk/tqsd.

EXAM PAPER PREPARATION

Academic Staff are responsible for the **setting, checking and marking** of Examination Papers. The allocation of the setting, checking and marking duties is the responsibility of the Examination representatives of each Division. Setting duties are normally allocated to the module lecturer. The allocation of each module to a Division should follow the allocation to the relevant external examiner as recorded in the module specification. It is the joint responsibility of the setter and checker to ensure that papers are free from errors before they are sent to the Examinations Department by the Examinations Coordinator.

Duties of Setter and Checker when producing an Examination Paper

1. When setting an examination other than for an MMath MATH4** or MSc MATH5** module, the setter should aim for the amount of work and the standard to be such that the mean mark of the paper is expected to be between 55% and 68%, and also that a student who has completed, to an acceptable standard, a majority of the work associated with the module should get $\geq 35\%$.
2. For papers that have a choice from a set of questions of equal merit, the Board recommends rubrics of the form:
Full marks will be awarded for complete answers to five questions. All will be assessed but only the best five answers will be taken into account.
For papers with two sections, the suggested form is
Answer all of Section A and THREE questions from Section B. The marks shown against questions, or parts of questions, indicate their relative weight.
Section A carries 55% of the available marks.
Substantial changes to rubrics *must* be cleared in advance by the Board, and then possibly by the Faculty, so these must be proposed in good time.
3. When a question has separate **independent** parts, the marks for these parts should be given separately (and not just a single mark for that question).
4. The notation (i), (ii) etc should be used for *dependent* parts of questions and (a), (b), (c), etc reserved for *independent* sub-questions.

5. The setter of a paper **must** provide model solutions (preferably typed but, if not, **clearly** handwritten) and have margins such that the full script is clearly visible when photocopied. The solution must contain a careful marking scheme, and one of the duties of the checker will be to see that this marking scheme is in line with requirement (1). The setter must also provide the checker with a copy of the last similar examination paper.
6. It is strongly recommended that examiners use the standard Latex template provided. This, together with instructions for use, may be found on the staff web pages. The final version of the paper together with the solutions and any other appropriate material will be sent to the External Examiner by the Examinations Coordinator with the assistance of the Student Support Team and subsequently filed.
7. The first part of each question should be straightforward for the weaker student. While the bulk of the questions should be accessible to the average student, it is recommended that the last few marks in a question are assigned to more challenging sub-questions with a greater emphasis on real understanding than on the degree of preparation. This is particularly important for honours level exam papers.
8. It is the responsibility of the checker to ensure that the exam paper examines all the material of the module in a fair and equal way and that students of all abilities are fully tested. Particular attention should be given to exams where the previous year's RAW average was more than 70% or less than 50%. To assess the level of difficulty of the exam paper, checkers must work through the calculations by hand and ensure that students can complete the questions in a reasonable amount of time.
9. It is unacceptable to set exactly the same question in consecutive January, May or September examinations. Setters are strongly encouraged to modify the types and wordings of exam questions where possible.
10. The recommended standard format for an honours paper should be of the form 'answer M of the following N questions' where the permitted formats are either $M/N = 4/6$ or $5/7$. Variation from this standard format requires prior approval from the Board of Studies.
11. For new modules or where a syllabus or the style of the exam paper has changed significantly, a mock paper or series of sample questions as appropriate should have been provided during the delivery of the module.
12. An Exam Check Form must be completed for each paper. This will be sent with that paper to the External Examiner. All parts of the Exam Check Form prior to the section for External Examiner's comments must be completed before handing the form with the draft exam paper to the Student Support Office.
13. When the examination paper is returned from the External Examiner any required revision must be completed and checked. Where suggestions for revision are rejected, the reasons for this must be recorded on the Exam Check Form.

Errors on Examination Papers

The marker and checker are responsible for making sure that there are no errors on the examination paper. It is NOT the responsibility of External Examiners to find errors on examination papers. The checking process is of course designed to eliminate errors and ambiguities on examination papers. If, nevertheless, an error is found before the exam, a correction slip should be given to each student with the paper and their attention drawn to it before the exam starts.

If an error is found *during* an exam then candidates should be informed by making an announcement and, where practical, writing a note on a white/black board. If felt appropriate, the invigilator(s) may allow a few minutes' additional time to make up for the disruption caused.

NB If errors are found before or during an examination the exams department in SAS must be informed immediately, because there may be students taking the examination in another venue. Contact numbers are listed as part of the invigilation guidance notes provided.

MARKING

Unless some other special arrangement has been made, the lecturer(s) assigned to the module is (are) responsible for marking the corresponding exam scripts and ensuring that the advertised timetable is adhered to. In order to comply with tight schedules for the production of papers for examiners' meetings, it is essential that staff give *first priority* to the marking and checking of scripts after a paper has been sat.

Anonymous marking and recording of marks

On receipt of the scripts for each module:

1. The **examiner** will mark each script without breaking the seal and put the marks on the front cover. It must be made clear on the script that all parts of all questions have been marked. Part marks and totals for questions must be indicated clearly on the script. It is good practice to mark each page with a line through it to indicate that it has been fully assessed – including blank or almost blank pages.
2. The **checker** will check the marks on each script and also that everything has been marked. The checker will mark the front page of each script to indicate that it has been checked. Marks will be corrected in consultation with the marker.
3. The **checker** will break each seal and put the scripts in *alphabetical order*.
4. **Both** checker and examiner must be involved in ensuring that the marks on each script are correctly transcribed to the **spreadsheet** supplied by the BSMS and *cross-checked*. For example, the checker might enter the marks and read them back to the examiner or vice-versa.
5. The examiner and checker will pay special attention to all students with surnames in common to check that their marks have been correctly assigned.
6. Any CA component will be supplied by the examiner and transcribed and cross-checked as above. For M101/02/03 the CA marks will be supplied via the BSMS.

7. Note that the class may contain 'external repeats' (students retaking the exam but without attendance). In this case, the CA mark from the previous year should be used.
8. The examiner will ensure that the checker confirms on the **exam report form** that the above procedures have been completed.
9. The examiner will propose any scaling procedure required (see next section) and have this agreed and countersigned by the appropriate Head of Division.
10. Examiners should bear in mind that students are entitled to view their individual examination scripts under the Department's Examination Feedback procedures.

MODERATION AND SCALING

On advice from external examiners, Continuously Assessed (CA) modules are not 'scaled' in the way described below, but are marked, and remarked if necessary, by reference to the relevant Marking Descriptors. Examined modules, however, should where necessary be scaled by the piecewise linear scaling procedure (hereafter referred to as **scaling**) so that the outcome of the exam is in accord with those described in the setting guidelines above while remaining broadly in accord with the exam Marking Descriptors reproduced below. This is to ensure a degree of uniformity across different modules, and to ensure fairness and objectivity for all students.

When the exam marks have been entered on the spreadsheet the examiner should:

1. Check that the results comply with the first setting guideline. In consultation with the Divisional Teaching Coordinators, or other person nominated by the Head of Department, the examiner should look carefully at the average marks (in the light of the setting guidelines) and at the **pass/fail borderlines**.
2. For modules contributing to degree classification the examiner must also look carefully at **3/2.2, 2.2/2.1 and 2.1/1 borderlines** i.e. examiners should satisfy themselves that scripts leading to final marks within +/- 1 of these borderlines (as described below) are correctly assessed.
3. The total average mark for a module will, in general, be the sum of the final exam mark (scaled if appropriate) and the CA mark. Where, following (1) and (2) above, some overall adjustment is required, the pass/fail, 3/2.2, 2.2/2.1 and 2.1/1 borderlines should be rescaled to 40, 50, 60 and 70 respectively. The other marks are then given by linear interpolation. (The spreadsheets have built-in formulae to allow one to do this.) If any scaling is implemented, the spreadsheet will display both the raw and scaled marks. Since the scaling procedure is intended to ensure that unexpected outcomes in the examination are taken into account and that there is consistency with the marking descriptors for the examination scripts, it is not expected that scaling be used to compensate for systematic under- or over-achievement in associated CA.
4. The examiner should give a short written report on the Examination Paper Report Form commenting on the scaling procedures, whether or not scaling was implemented. The form

prompts the examiner with a number of considerations which will affect scaling decisions including the sample size used to determine averages. Sample comments from well-presented exam report forms are available from BSMS.

5. Level 4 modules (M4** contributing to the MMath and MPhys degrees and M5** contributing to MSc degrees) are subject to scaling so as to achieve broad comparability and correct class boundaries satisfying Marking descriptors but are not required to necessarily meet the average class mark criteria. This is because the students on the modules are likely to be an above-average subset and also because the class sizes are likely to provide an unsatisfactorily small statistical sample.
6. The spreadsheet should be returned to the Examinations Coordinator as soon as possible. Please note that at the same time the online Exam Report Form should be completed by **the Examiner**, including the report on scaling referred to above. The form will go automatically to **the Checker and the Head of Division or his nominee** to be signed off.
7. Upon receipt of this, the Examinations Coordinator with the assistance of the Student Support Team will then transmit final marks to the Spider database and arrange for cross-checking.
8. All final marks should be on Spider by the deadline given in the document 'Meetings of Examiners'.

EXAMINERS MEETINGS

In order to satisfy the University procedures and timetable regarding **Progress and Degree Classification**, the following sequence of examiners meeting takes place. The main purpose of each meeting is summarised in the table. Details of procedures are described below.

1. Informal Module Review Meeting	Review and revision of scaling recommended by examiners.
2. Module Review Meeting	Formal review and confirmation of module marks in the presence of all external examiners.
3. Mitigating Circumstances Meeting	Consideration of mitigating circumstances and recommendations to Progress and Final Examiners Meetings.
4. Progression Meeting	Consideration of individuals and their module marks making progress recommendation to Faculty.
5. Final Examiners Meeting	Confirmation, in the presence of one external examiner, of degree classifications according to University algorithms over-ruled where required following recommendations of the Mitigating Circumstances Meeting.

Note that **other Boards of Studies** to which our modules contribute have their own sequence of meetings. BSMS examiners are expected to be present, or be represented, at the relevant Progress

Meetings on other Boards (see also below). In January/February, only the Informal Module Review and an informal Progression Meeting take place.

1. Informal Module Review Meetings

The regulations concerning module marks differ slightly depending on whether they are contributing simply to student *progression* or will be used also, or solely, for *degree classification*. The BSMS therefore normally has separate informal review meetings for modules in Year 0,1,2 and for years 3 and 4.

IMRM for Y3/4

Present: Chairman of the BSMS; the Chairman of the Final Examiners Meeting; Divisional Teaching Co-ordinators; the Academic Secretary to the Board of Examiners; the Secretary to the Board of Examiners.

1. Information will be tabled giving, for each module: the mark summary with respect to the usual borderlines together with the mean mark obtained by the class on all other modules, for which marks are available and carry forward marks from year 2. The full mark spreadsheet for each module will be available electronically. The Exam Paper Report Form will also be available.
2. Any scaling or non-scaling of the marks for each module will be considered alongside the explanation given on the Examination Paper Report Form and where it is felt appropriate adjustments may be made. For reasons described above, marks for level 4 modules will not normally be scaled. Nor will CA modules.
3. The results of any changes to scaling will be reported to the examiner together with a request to consider carefully the new implied borderlines and their relation to the Marking Descriptors (given below). The examiner must then confirm to the BSMS that he/she has correctly assigned scripts at the new borderlines.
4. Note that any significant changes to individual candidate marks should NOT be made at this stage unless correcting an error.
5. Any disagreements with the resulting cohort marks should be brought to the attention of the Module Review Meeting by the examiner.

IMRM for Y0/1/2

Present: Chairman of the BSMS; the Chairman of the corresponding Progression Meeting; one representative from each division for both Year 1 and Year 2; one representative for Year 0; the Academic Secretary to the Board of Examiners; the Secretary to the Board of Examiners.

1. Information will be tabled giving, for each module: the mark summary with respect to the usual borderlines together with the mean mark obtained by the class on all other modules for which marks are available at that time. The full mark spreadsheet for each module will be available electronically. The Exam Paper Report Form will also be available.
2. The proposed scaling or non-scaling of the marks for each module will be considered alongside the explanation given on the Examination Paper Report Form, and where it is felt appropriate, adjustments may be made. CA modules will not normally be scaled.
3. The results of any changes to scaling will be reported back to the examiner together with a request to consider any special cases which result from changes to scaling, especially where these could affect progression.

2. Module Review Meetings

As with the informal module review meetings, and for the same reasons, these are normally held as two separate meetings. All three external examiners are present at both. They are invited to give their remarks at the first of these meetings (level 3 and 4 modules) at which all DMS teaching staff are expected to be present.

MRM for Y3/4

Present: Chair of the Board of Examiners; Chair of the BSMS; all teaching staff in the Department of Mathematical Sciences; the three UG and the PGT External Examiners; the Academic Secretary to the Board of Examiners; the Assessment Officer; the Secretary to the Board of Examiners.

1. The same information provided for the Informal Module Review Meeting, updated as necessary, will be provided (see above).
2. The scaling recommendations of the IMRM will be reviewed and the relevant external invited to comment. The meeting has the power to change the recommended scaling.
3. Where scaling changes have been made *without* the examiners having had the opportunity to review and correct the effect of changed borderlines on **profiling** (see below) the meeting will be invited to adopt the following procedure to mitigate the unintended consequences of scaling: *where a mark ending in a '9', just below a relevant borderline, has resulted from scaling down at that borderline, all such candidates with that mark will have it increased by +1. Otherwise no changes will be made to individual marks.*
4. There will be no consideration of individual candidates based on their performance in other modules. However, evidence from individual scripts, for example reported by the externals, will be used to help define borderlines.

MRM for Y0/1/2

Present: Chair of the Board of Examiners; Chair of the BSMS; the Chairman of the corresponding Progression Meeting; the three UG and the PGT External Examiners; all examiners of non-honours modules; the Academic Secretary to the Board of Examiners; the Assessment Officer; the Secretary to the Board of Examiners.

1. The same information provided for the Informal Module Review Meeting, updated as necessary, will be provided (see above).
2. The scaling recommendations of the IMRM will be reviewed and the relevant external invited to comment. The meeting has the power to change the recommended scaling.
3. The results of any further changes to scaling will be reported to the examiner together with a request to consider any special cases which result from changes to scaling, especially where these could affect progression.
4. The remarks concerning the effects of rescaling at borderlines on level 3 and 4 modules (see point (3) above) also apply to level 2 modules.

3. Mitigating Circumstances

Students have been informed of their responsibility to report medical and other extenuating evidence for under-achievement in examinations to the Board of Studies. A notice drawing attention to the relevant section of the "Notes for Guidance of Examination Candidates" has been made available to all

students. Requests for Mitigating Circumstances will only be considered if a student has completed the relevant application form. The Chairman of the BSMS will be responsible for ensuring that accurate records are kept of all such evidence submitted to the BSMS. All tutors and lecturers are expected to ensure that students reporting problems submit their evidence to the BSMS in the correct way. Evidence concerning a student taking a module with another Board of Studies must nevertheless be submitted to the BSMS if the student is following a BSMS degree programme.

1. A formal Mitigating Circumstances Committee (MCC) meeting will be held according to the University timetable between the Module Review Meetings and the Final Examiners Meeting in May/June.
2. The MCC consists of: Chair of the Board of Examiners; Chair of the BSMS; Divisional Teaching Co-ordinators; Senior Tutor; Academic Secretary to the Board of Examiners; Secretary to the Board of Examiners.
3. The MCC considers fully every case for which formal evidence has been provided
4. In reaching its recommendations for transmission to the Final Examiners Meeting (FEM), and to the Progression Meeting (PM), the MCC will consider the likely impact of the circumstances as set down in the University Code of Practice, using its best academic judgement.
5. Confidentiality will be respected. The details of any medical or personal circumstances will not be forwarded to the FEM or PM, just a recommendation on whether the evidence be accepted as relevant, and if so, the extent of its impact on the assessment components.
6. For the informal Progression Meeting in Jan/Feb, the Chairman of the Mitigating Circumstance Committee is expected to have reviewed any relevant Mitigating Circumstances evidence which might affect any interim progress recommendations (such as Faculty Progress) based on the first semester performance. Again, confidentiality is respected in that details of such evidence are not discussed in the examiners' meeting.

Members of staff should be aware that hearsay evidence produced verbally at a Final Examiners Meeting or Progression Meeting will be ruled out of order.

4. Progression Meeting

A Progression meeting is held (usually on the same day as the Final Examiners Meeting) to consider progression from year 0 to 1, 1 to 2 and 2 to 3.

Present: Chair of the Board of Examiners; Chair of the BSMS; all lecturers and tutors to year 0,1 and 2 modules; the Academic Secretary to the Board of Examiners; the Secretary to the Board of Examiners.

1. The Progression Meeting considers each individual student within a degree programme and determines pass, fail or other recommendation concerning their ability to proceed to the next year of the programme. Such a recommendation might, for example, be that the student is to be seen by the Faculty Progress committee. (see UCoPA, Appendix E). Typical decisions are: resit all failed modules; resit module X as a 'first attempt' (i.e. with an un-capped mark) because of acceptable Mitigating Circumstances; pass to Dean's Progress because of one or more unexplained absences from exams; pass to Dean's Progress because of seriously poor performance, especially for a repeating candidate; pass to Faculty Progress because of persistent and continuing problems of progress and performance.
2. Information provided is: list of all module marks for each student; module report forms containing recommendations for raising of marks where appropriate; recommendations of the Mitigating Circumstances committee.

3. This meeting has the power to recommend *minor changes* to marks at 34 and 40 boundaries in order to aid progression. The Board of Examiners' Secretary is responsible for ensuring that these changes are implemented. Changes must be made in a consistent way.
4. The progression rules are described in the UCoPA and in the student handbook.
5. In the informal Progression Meeting following first semester exams, marks are treated as provisional. Although no pass/fail decisions can be taken, recommendations for Faculty Progress or other follow-up procedures are made.

5. Final Examiners Meeting

The Final Examiners Meeting (FEM) has responsibility for confirming the degree classifications for BSc, MMath and MPhys programmes owned by the BSMS.

Present: Chair of the Board of Examiners, Chair of the BSMS, all teaching staff in the Department; one representative of the three external examiners; the Academic Secretary to the Board of Examiners; the Secretary to the Board of Examiners.

1. The meeting considers each individual student within each programme and determines the degree classification or makes other recommendation according to the UCoPA.
2. Unless there are recommendations to the contrary from the Mitigating Circumstances Committee, or there have been technical errors in processing marks, the automatic classifications as proposed by the University system will be confirmed (see UCoPA, Appendices I,J).
3. The UCoPA specifies that 'If a candidate otherwise meets the criteria for the award of a classified honours degree but has failed a module or modules in their final year, the Board of Examiners, before recommending the award of a classified honours degree, must satisfy itself that the overall learning outcomes of the programme of study have been achieved. If, for example, without mitigating circumstances, a student has a mark of zero in a module due to non-attendance or failure to take the assessments, the Board of Examiners would be unlikely to recommend the award of an honours degree.'
4. There should be no open discussion of personal evidence considered by the Mitigating Circumstances Committee. The external examiner will be given access to MCC minutes and recommendations.
5. Information provided is: the formal list of all module marks for each year contributing to the classification together with the classification proposed by the University system; additional mark summaries where the University system has been shown to be in error and a manual classification has been required.
6. Progression of students from year 3 to year 4 of a Masters programme is considered at this meeting.
7. A student whose performance in year 3 is deemed inadequate for progression to year 4, may be offered the possibility of graduating with a BSc if the classification system allows.

Other Boards of Examiners

BSMS modules contribute to degree programmes whose responsibilities lie with other Boards of Studies, and vice versa.

1. Following our Module Review Meetings it is important that at least one examiner represents the BSMS at each relevant Progression Meeting to which any module contributes. It is normal for a representative to attend on behalf of colleagues and should go armed with relevant evidence including marks lists and module report form.
2. Any module mark changes requested by another Progression Meeting must be communicated speedily to the BSMS.

MSc programmes

Modules taken by students on the taught MSc programmes in Mathematical Sciences are dealt with in the same way as modules (mostly the same) taken by students on the Integrated Masters programmes (MMath and MPhys), except that the pass mark is 50% rather than 40%. Since classification (pass/fail or distinction) can not be determined until the main dissertations have been assessed and reviewed by the relevant external examiners, these candidates are not considered at the main Final Examiners meeting. Concerns about progress are dealt with during the Module Review Meeting at which all three externals are present. A Final Board of Examiners for the MSc programmes will meet in Semester 1 of the following session to classify the degrees.

Examiners meetings and student feedback

At examiners meetings, a range of evidence is presented and individual cases can often be discussed at length. The final decision is taken with due regard to that discussion and, of course, with reference to the external examiners' views where appropriate. It is vital that no staff member should ever anticipate this process and inform a student beforehand of what they believe will be the outcome. This can cause distress to the students, embarrassment to the Department and potentially serious trouble for the University.

RESIT PROCEDURES

Resit examinations for modules available in Years 0,1 and 2 are taken in late August / early September each year. A level 3 or 4 module may only be taken, with prior permission, at the next scheduled examination of that module in the following academic year. MSc students who have not passed modules in January or May take their resit examinations in the scheduled August/September examination period. Special examination papers will have to be written for any re-sitting MSc students. The following additional points relevant to resit examination procedures should be noted.

1. Resit papers for year 0,1,2 modules must be prepared and submitted along with the main paper.
2. Where there is no specific resit provision for a CA component, the CA mark used at the last normal exam sitting will again be used.
3. There is a single Resit Examiners Meeting at which all progression issues are considered using the same procedures as in the main Progression Meeting.
4. The Resit examiners meeting is Chaired by the Chair of the BSMS and attended by all module examiners.
5. There is no scaling of module marks.
6. Unless the resit has been allowed as a 'first attempt' following mitigating circumstances, any passing module marks are capped at 40% with the exception of modules taken by MSc students where the cap is 50%.

UNIVERSITY CLASSIFICATION SYSTEM

The University will provide a classification list based upon the module marks approved by the Module Review Meetings of all relevant Boards of Studies. The following algorithms are used:

For BSc programmes (3 years):

$$\text{Overall average mark: } A = \frac{7D + 3C}{10}, \text{ where}$$

- (a) C is the carry forward mark from year 2;
- (b) D is the average of the marks obtained on the 120 credits taken in year 3.

For MMath or Mphys programmes (4 years):

$$\text{Overall average mark: } A = \frac{2C + 4D + 4H}{10}, \text{ where}$$

- (a) C is the carry forward mark from year 2;
- (b) D is the average of the marks obtained on the 120 credits taken in year 3;
- (c) H is the average of the marks obtained on the 120 credits taken in year 4;

Profiling Three year Bachelor degrees

Profiling (2004/05 to 2009/10 cohorts)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_I_2004-05_cop_assess.pdf

(i) If a candidate achieves 67-69%, 57-59%, 47-49% or 37-39% by averaging, i.e. missing automatic classification by no more than 3%, they will have their mark profile considered. For the purpose of determining the average mark for profiling, re-sit marks will be capped at 40%, unless the re-sit is being treated as a first examination in cases of ill-health or other mitigating circumstances determined by the Board of Examiners (or, where appropriate, the Faculty Progress Committee).

(ii) If a candidate is profiled, s/he will be awarded the higher class if either 120 credits of study in years two and three are in a higher class than the overall average mark and of these at least 60 credits have been achieved in year three or 135 credits across years two and three are in a higher class than the overall average mark.

(The first condition recognises exit velocity; the second allows performance in year two to count in the student's favour while requiring that there is some performance at the higher class in year three.)

Profiling (2010-11 and 2011-12 cohort)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_I_2010-11.pdf

(i) If a candidate achieves 69%, 59%, 49% or 39% by averaging, i.e. missing automatic classification by no more than 1% (after rounding) they will have their mark profile considered. For the purpose of determining the average mark for profiling, re-sit marks will be capped at 40% (or 50% for level M

modules), unless the re-sit is being treated as a first examination in cases of ill-health or other mitigating circumstances determined by the Board of Examiners (or, where appropriate, the Faculty Progress Committee).

(ii) If a candidate is profiled, s/he will be awarded the higher class if either:

120 credits of study in years two and three are in a higher class than the overall average mark and of these at least 30 credits have been achieved in year three; or at least 60 credits of study in the final year have been achieved in the higher class.

(The first condition allows performance in year two to count in the student's favour while requiring that there is some performance at the higher class in year three; the second recognises exit velocity.)

Profiling Four year Bachelor degrees (Year in Industry or abroad)

NB the profiling rules for the four year with Year abroad and the Integrated Masters are in the same document so please ensure that you choose the correct section of the appendix as the rules differ.

Profiling (2004/05 to 2007/08 cohorts)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2004-05_cop_assess.pdf

(i) If a student achieves 67-69%, 57-59%, 47-49% or 37-39% by averaging, i.e. missing automatic classification by no more than 3%, they will have their mark profile considered.

(ii) If a student is profiled, s/he will be awarded the higher class if **either** 120 credits of study in years **two** and **four** are in a higher class than the overall average mark and of these at least 60 credits have been achieved in year four; **or** 135 credits across years **two** and **four** are in a higher class than the overall average mark.

The first condition recognises exit velocity; the second allows performance in year two to count in the student's favour while requiring that there is some performance at the higher class in year four.

Profiling (2008/09 to 2009/10 cohorts)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2008-09_cop_assess.pdf

(i) If a student achieves 67-69%, 57-59%, 47-49% or 37-39% by averaging, i.e. missing automatic classification by no more than 3%, they will have their mark profile considered.

(ii) If a student is profiled, s/he will be awarded the higher class if **either** 120 credits of study in years **two** and **four** are in a higher class than the overall average mark and of these at least 60 credits have been achieved in year four; **or** 135 credits across years **two** and **four** are in a higher class than the overall average mark.

The first condition recognises exit velocity; the second allows performance in year two to count in the student's favour while requiring that there is some performance at the higher class in year four.

Profiling (2010-11 and 2011-12 cohort)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2010-11_cop_assess.pdf

(i) If a student achieves 69%, 59%, 49% or 39% by averaging, i.e. missing automatic classification by no more than 1% (after rounding), they will have their mark profile considered.

(ii) If a student is profiled, s/he will be awarded the higher class provided that: at least 120 credits of study in years two and four are in a higher class than the overall average mark and of these at least 30 credits have been achieved in year four; or at least 60 credits of study in the final year are in the higher class; or at least 30 credits of study in the final year are in the higher class and the overall average for the year abroad or in industry is also in the higher class.

The first condition allows performance in year two to count in the student's favour while requiring that there is some performance at the higher class in year four; the second condition recognises exit velocity; and the third condition allows performance in the year abroad or in industry to count, whilst also requiring performance in the higher class in the final year.

Profiling Integrated Masters degrees MMath and MPhys

NB the profiling rules for the four year with Year abroad and the Integrated Masters are in the same document so please ensure that you choose the correct section of the appendix as the rules differ.

Profiling (2004/05 to 2007/08 cohorts)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2004-05_cop_assess.pdf

The profiling rules for all the Integrated Master's programmes, with the exception of the MChem with a year in industry and the MESci with a year in North America, are as follows. If, as a result of their overall average, a student misses the higher classification by no more than 3%, their marks profile will be considered. For the purpose of determining the average mark for profiling, re-sit marks will be capped at 40%, unless the re-sit is being treated as a first examination in cases of ill-health or other mitigating circumstances determined by the Board of Examiners (or, where appropriate, the Faculty Progress Committee). They will be awarded the higher class if **either**

(i) a minimum of 180 credits are in a higher class than the overall average mark and of these at least 60 credits have been achieved in year four; **or**

(ii) a minimum of 210 credits across years two, three and four are in a higher class than the overall average mark.

Profiling (2008/09 to 2009/10 cohorts)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2008-09_cop_assess.pdf

The profiling rules for all the four-year Integrated Master's programmes, with the exception of the MChem with a year in industry and the MESci with a year in North America, are as follows. If, as a result of their overall average, a student misses the higher classification by no more than 3%, their marks profile will be considered. For the purpose of determining the average mark for profiling, re-sit marks will be capped at 40%, unless the re-sit is being treated as a first examination in cases of ill-health or other mitigating circumstances determined by the Board of Examiners (or, where appropriate, the Faculty Progress Committee). They will be awarded the higher class if **either**:

(i) a minimum of 180 credits are in a higher class than the overall average mark and of these at least 60 credits have been achieved in year four; **or**

(ii) a minimum of 210 credits across years two, three and four are in a higher class than the overall average mark.

Profiling (2010-11 and 2011-12 cohort)

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/appendix_J_2010-11_cop_assess.pdf

The profiling rules for all the four-year Integrated Master's programmes, with the exception of the MChem with a year in industry and the MESci with a year in North America, are as follows. If, as a result of their overall average, a student misses the higher classification by no more than 1% (after rounding), their marks profile will be considered. For the purpose of determining the average mark for profiling, re-sit marks will be capped at 40% (or 50% for M level modules), unless the re-sit is being treated as a first examination in cases of ill-health or other mitigating circumstances determined by the Board of Examiners (or, where appropriate, the Faculty Progress Committee). They will be awarded the higher class if they have obtained:

(i) at least 60 credits at M level in the higher class ; **and either**

(ii) at least 180 credits over Years 2, 3 and 4 in the higher class; or at least 120 credits over Years 3 and 4 in the higher class..

The full Code of Practice on Assessment can be found at:

http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_assess/Code_of_Practice_on_Assessment1.htm

MARKING DESCRIPTORS

Note: These descriptors apply to examinations for taught/examined modules in all years. The mathematics itself, and the style of examination questions, become more demanding in later years, and therefore require greater intellectual effort on the part of the candidate to achieve the corresponding descriptor.

Class	Mark	Descriptor
	90-100	Essentially complete and mathematically correct answers to all questions, with copious evidence of clear understanding and technical mastery.
FIRST	80-89	Essentially complete and mathematically correct answers to nearly all questions, with copious evidence of clear understanding and technical mastery.
	70-79	Substantially complete and mathematically correct answers to most questions with plentiful evidence of clear understanding and technical competence.
UPPER SECOND	60-69	Serious attempts at most questions, with convincing evidence of understanding and technical ability. Some errors and omissions.
LOWER SECOND	50-59	Serious attempts at some questions, with some evidence of understanding and technical ability. Other answers incomplete or incorrect.
THIRD	40-49	Some parts of questions correct, a few attempts at whole questions. Limited evidence of understanding and technical ability.
COMPENSATABLE FAIL	35-39	Some isolated pieces of correct mathematics, little serious attempts at questions. Confused and incomplete answers. Little evidence of understanding or technical ability.
FAIL	0-34	Practically no evidence of understanding or technical ability. Only isolated pieces of correct mathematics, or none.

Marking descriptors for project modules

These can be found the departmental web pages associated with the various project-based modules.

RETENTION OF WORK

Lecturers should note the following University rules:

- (i) Subject to the provisions of (iii) below, Boards of Examiners should retain all work undertaken under formal examination conditions and which contributes to a final award for a period of 12 months from the date on which the award is determined by the Board of Examiners.
- (ii) That the Board of Examiners should retain a representative sample of all students' work contributing towards a final award (including top, middle and bottom of the ability range) beyond the above 12 month period, in order to meet the requirements of a HEFCE, OFSTED, teaching quality audit or professional accreditation visit.
- (iii) Apart from retaining representative samples of continuously assessed work, laboratory or project reports etc (as indicated in (ii) above), the Examiner will return all such work to the student following completion of its assessment and moderation. Consequently, the University will place the onus on the student to reproduce any such work in cases of appeal etc.