

Oxford University Final Honour Schools
Hilary Term 2008

Mathematics and Statistics Part B:
First Notice to Candidates

This circular contains information about:

1. Format of examination papers
2. Publication of a marks distribution table.
3. Calculators and Statistical tables
4. Marking of papers in Part B and classification.

A Second Notice will be sent out later with information about the examination timetable and practical arrangements in the Examination Schools, including examination numbers, handing in of scripts and so on.

Geoff Nicholls
Chairman of Examiners
Department of Statistics
4th March 2008

cc Senior Maths Tutors

FHS 2008 Mathematics and Statistics Part B:

Format of examination papers

BS1 Applied Statistics (whole unit)

This is a 2 hour paper, with four questions on Michaelmas Term work and two questions on Hilary Term work. The rubric requires candidates to answer at most 4 questions, with the best three counting. Each question is marked out of 22 and the compulsory assessed practical component is marked out of 34.

BS2 Statistical Inference (whole unit)

This is a 3 hour paper, with four questions on Michaelmas Term work and four questions on Hilary Term work. Each question is marked out of 25. The rubric states: "Submit answers to a maximum of five questions. Submit at least one answer in each section (half-unit) of the paper. The best answer in each section will count, along with the best two of the remaining answers".

The Michaelmas Term half of BS2 is available as the half unit BS2a (four questions). Each question is marked out of 25. The **half unit** paper lasts for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

BS3 Stochastic Modelling (whole unit).

This is a 3 hour paper, with four questions on Michaelmas Term work and four questions on Hilary Term work. Each question is marked out of 25. The rubric states "Submit answers to a maximum of five questions. Submit at least one answer in each section (half-unit) of the paper. The best answer in each section will count, along with the best two of the remaining answers".

The Michaelmas Term half of BS3 is available as the half unit BS3a (four questions). Each question is marked out of 25. The **half unit** paper lasts for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

BS4 Actuarial Science (whole unit)

This is a 3 hour paper, with three questions on Michaelmas Term work and three questions on Hilary Term work. Each question is marked out of 25. The rubric states: "Submit answers to a maximum of five questions. The best four will count".

Mathematics papers B1 - B10. These are whole unit papers, and each contains four questions on Michaelmas Term work and four questions on Hilary Term work. Most of these papers can also be taken as half unit papers either on Michaelmas Term work (four questions) or on Hilary Term work (four questions). Each question is marked out of 25. The **whole unit** papers last for 3 hours, and the rubric states "Submit answers to a maximum of five questions. Submit at least one answer in each section (half-unit) of the paper. The best answer in each section will count, along with the best two of the remaining answers". The **half unit** papers last for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

Mathematics paper B11

This is a half unit paper, containing four questions. Each question is marked out of 25. The papers last for 1 3/4 hours, and the rubric states "Submit answers to a maximum of three questions. The best two answers will be counted".

BE Extended Essay in Mathematics (whole unit)

USM marks will be assigned to Extended Essays following the same principles as those used in the Mathematics **and Statistics papers**. In arriving at these marks, the relative weights attached to content, mathematics/statistics and presentation will be 1/4, 1/2 and 1/4, respectively.

The attention of candidates is drawn to the requirement to submit their own original work and to complete a declaration of authorship form when submitting their essays. Passages quoted or closely paraphrased from another person's work must be identified as quotations or paraphrases, and the source of the quoted or paraphrased material must be clearly acknowledged. Failure to set a high standard in this respect could lead to a charge of plagiarism, with serious disciplinary consequences. Equally, if a student summarises another person's ideas, judgements, figures, software or diagrams, a reference to that person or the source should be made in the text and the source included in the bibliography.

Mathematics papers C3.1, C3.1a, C3.1b, C5.1a

C3.1 is a whole unit paper, lasting 3 hours and containing four questions for each of the two half units C3.1a and C3.1b. You may attempt as many questions as you like but only your two best answers on each half unit will count towards your final mark for the paper. C3.1a, C3.1b and C5.1a are half unit papers, each lasts 1 3/4 hours and contains four questions. You may attempt as many questions as you like but only your two best answers will count towards your final mark for the paper. USMs on these papers will be assigned by the Part C Examiners.

N1 Undergraduate Ambassadors' Scheme (half unit)

Candidates are assessed on their Journal of activities, Oral presentation, Course report and project, Teacher report. The weightings for these four components are 20%, 30%, 35%, 15% respectively.

Publication of marks distribution tables

The Examiners propose to publish marks distribution tables (i.e. tables showing the percentage of candidates achieving each average USM and above). The tables will be sent to each candidate and to tutors and Senior Tutors, and the information will also be published in the Examiners' Report.

Calculators and Statistical tables

For the units and half units B3, B7.1, B8, B9, BS1, BS2, B3 and BS4, basic scientific calculators which have features such as exp and log, but which are NOT programmable, will be allowed. For these papers, any of the following will be permitted:

Casio fx-82, fx-83 (with any suffix, such as ES, MS), fx-85 (with any suffix, such as ES, MS), or fx_992 S, Sharp EL-530 LB, EL-520 or EL-531 (with any suffix),

Hewlett Packard hp 9s, hp 10s or hp 30s,

Texas Instruments TI 30X (and any suffix) or TI 36X (and any suffix).

Candidates should note that no calculators will be available in the examination room.

New Cambridge Elementary Statistical Tables will be provided for use with papers BS1, BS2, BS3, and BS4. These tables will be available for inspection at the Department of Statistics, between 9 am and 12 noon on any weekday in Week 4 of Trinity Term.

FHS 2008 Mathematics and Statistics Part B: Marking of papers in Part B and Classification

Standardized Marks

The University wishes all examiners to adopt a uniform system of reporting marks. This means that each candidate will receive a numerical mark on each paper in the range 0-100, such that

- a First Class performance (on that paper) is indicated by a mark of 70 or over;
- an Upper Second Class performance (on that paper) is indicated by a mark of 60 to 69;
- a Lower Second Class performance (on that paper) is indicated by a mark of 50 to 59;
- a Third Class performance (on that paper) is indicated by a mark of 40 to 49;
- a Pass performance (on that paper) is indicated by a mark of 30 to 39;
- a performance at the level of a Fail (on that paper) is indicated by a mark below 30.

In order to arrive at such standardized marks for each paper, the examiners will mark and assess papers in the way described below.

Marking of papers in Part B

The Board of Examiners in Part B will assign USMs for full unit and half unit papers taken in Part B and they may recalibrate the raw marks to arrive at university standardized marks reported to candidates. The papers are designed so that the raw marks on a full unit sum to 100 and the raw marks on a half unit sum to 50. The USMs on both full units and half units will be out of 100. However, Examiners will take into account the relative difficulty of papers when assigning USMs; in order to achieve this, Examiners may use information on candidates' performances on the Part A examination when recalibrating the raw marks. They may also use other statistics to check that the USMs assigned fairly reflect the students' performances on a paper.

In order to ensure fair treatment, Examiners may exercise individual consideration in assigning USMs for candidates whose marks lie outside the standard pattern, or when assigning USMs to papers where the number of candidates involved is small or untypical. The Examiners may also adjust USMs to take account of any special circumstances affecting individual candidates.

Classification

All candidates in the 3-year degree and the 4-year degree will receive a classification at the end of the third year, based on aggregated USMs from Parts A and B. Candidates on the 3-year degree may supplicate for a BA degree at this stage.

The Part A University standardized marks (USMs) are given a weighting of 2, and the Part B USMs are given a weighting of 3 for a full-unit and 1.5 for a half-unit. The classification will flow from an average of these weighted USMs. The weighted average, AvUSM-Part A&B is rounded up to the nearest whole number. Borderlines are determined by the university standardized scale. The formulae for classification are as follows:

First Class: $\text{AvUSM-Part A\&B} \geq 70$ with not more than 2 weak papers ($\text{USM} < 50$)

Upper Second Class: $\text{AvUSM-Part A\&B} \geq 70$ with more than 2 weak papers ($\text{USM} < 50$) or $70 > \text{AvUSM-Part A\&B} \geq 60$ and not more than 2 very weak papers ($\text{USM} < 40$)

Lower Second Class: $70 > \text{AvUSM-Part A\&B} \geq 60$ and more than 2 very weak papers ($\text{USM} < 40$) or $60 > \text{AvUSM-Part A\&B} \geq 50$

Third Class: $50 > \text{AvUSM-Part A\&B} \geq 40$

Pass: $40 > \text{AvUSM-Part A\&B} \geq 30$

Fail: $\text{AvUSM-Part A\&B} < 30$

Half units count as a half paper when determining the number of weak or very weak papers.

The examiners aim to ensure that all papers are fairly and equally rewarded, but if in any case a paper appears to have been problematical, then the examiners, in their classification, will give special consideration to candidates taking that paper. The examiners will take particular care in assigning classes to those candidates whose marks fall near each Class boundary.

A candidate who starts Part C (and to do so must have at least an Honours degree when classified at the end of Part B) but who decides not to complete the Part C examinations, may supplicate for a BA with the classification as awarded at the end of Part B based on Parts A and B.

Candidates who proceed to Part C will be classified for a second time at the MMath level. Successful candidates at Part C will thus be able to supplicate for an MMath degree with a double classification : one for parts A and B, and one for Part C.