

**MAS334 COMBINATORICS 2017-2018
EXAM INFORMATION**

Duration: 2 hours 30 minutes.

Format: Answer all 4 questions. (This is the same format as the last several years, but different from earlier years.)

Content: The paper covers all the chapters of the course and aims to test most of the main ideas in the syllabus.

Definitions: You should learn carefully definitions in the course, e.g. the definition of a rook polynomial, of a design, ...

Statements of Theorems: You should be able to state accurately the main theorems of the course, e.g., the Binomial Theorem, the Inclusion/Exclusion Principle, ...

Proofs: As part of your revision, you are advised to read the entire course, including the proofs. The following are examinable proofs: **35, 43, 51, 66, 85, 89**. One of these proofs will be asked for on the exam.

Examples: There will be examples and problems to solve on the exam paper. The examples covered in the lectures, the homework problems and the other problems on the example sheets provide a good guide to the style of problems. It really helps to practice doing these problems!

Past papers: Two past papers are available on the course web page, with solutions. These two papers should be a reasonably good guide to the style of your exam questions. In both of those years I lectured the course and set the exam. Further past papers are available from the SoMaS webpages.

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