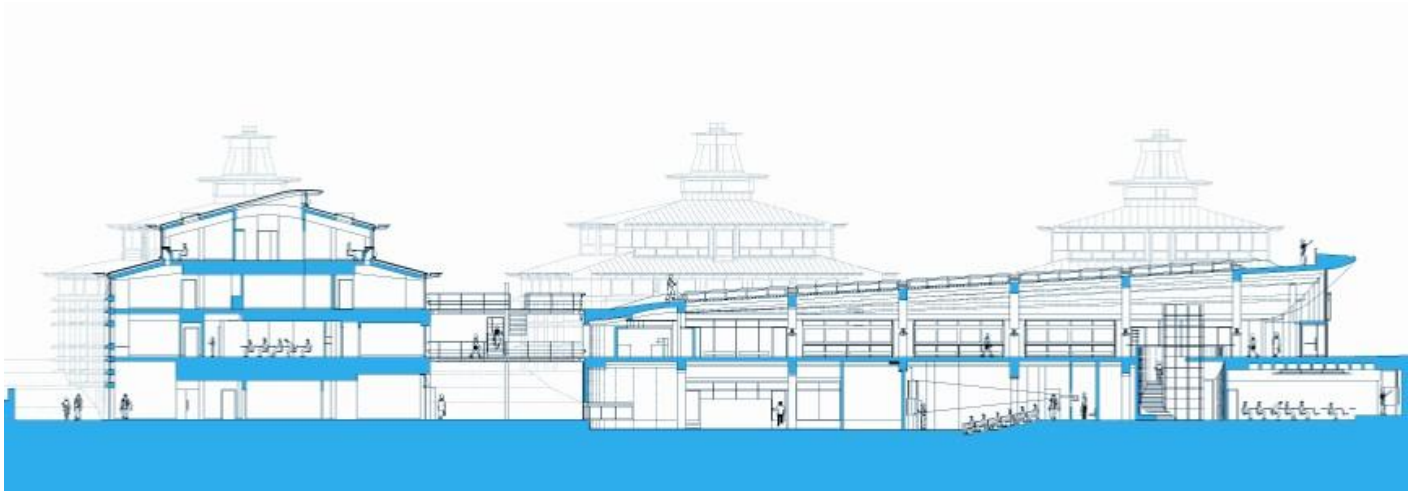
UNIVERSITY OF CAMBRIDGE
Faculty of Mathematics

Mathematical Tripos
Part III Handbook 2025-26



Contents

1. Introduction

Part III is run by the Faculty of Mathematics, which is composed of the Department of Applied Mathematics and Theoretical Physics (DAMTP), and the Department of Pure Mathematics and Mathematical Statistics (DPMMS). The Statistical Laboratory (Stats Lab for short) is a self-contained part of DPMMS composed of those staff who work on mathematical statistics and probability.

All official Part III activity takes place at the Centre for Mathematical Sciences (CMS) in Clarkson Road, where there are lecture theatres, common rooms and a large Part III room. The latter is specifically provided for the use of Part III students. All members of DPMMS are located in Pavilions C, D and E at the CMS. All members of DAMTP are based in Pavilions B, F, G and H.

This handbook provides administrative and other important information for Part III students and those responsible for advising them. In addition to this handbook, students should consult the following documents. These are published alongside other important information on the *Faculty website*.

Notes for New Part III Students
This document outlines important arrangements for the start of the year, including information about the Introductory Meeting. All Part III students are issued with a copy prior to the start of the Michaelmas term, and it is also posted under *Part III Lectures and Examples Classes*.

Part III Guide to Courses
This guide is updated annually and provides descriptions of all Part III lecture courses offered in any given year. It can be found on the Faculty Website, via *Part III Lectures and Examples Classes*, and should be read in conjunction with the associated *Notes and Disclaimers*. The Part III Guide to Courses is populated over the summer as course descriptions become available and may be updated over the course of the year as required. There will be no hardcopies.

Part III Essay Booklet
This booklet is published about halfway through the Michaelmas term and provides information on essay topics offered in the current year. See *Section 10 – Essays* for further information.

There are many people who can offer advice and help to Part III students. See *Section 4 – Points of Contact* and *Appendix I*.

2. Introductory and Welcome Meetings

At the start of the year, the Faculty holds two meetings: a "MASt Welcome" meeting for Part III students who were not Cambridge undergraduates, and an Introductory Meeting for all Part III students. The Welcome meeting is usually held on the first Tuesday of full Michaelmas term, while the Introductory Meeting is held on the first Wednesday. The purpose of the Welcome meeting is to greet incoming students and acquaint them with general aspects of Part III and the Centre for Mathematical Sciences, while the purpose of the Introductory Meeting is to provide important information to all students about the courses on offer as well as essential administrative arrangements. Both meetings are also an opportunity to meet other students and members of academic staff.

In 2025-26, the **Welcome Meeting for incoming MASt students will be held on Tuesday 7th October, starting at 9.00am or 10.30am, depending on the student's College affiliation.** The **Introductory Meeting for all Part III students (MASt and MMath) will be held on Wednesday 8th October, starting**

at 9.00am or 10.30am, again depending on the student's College affiliation. Details of which session(s) students should attend, depending on their College, along with more information on the topics to be covered, are given in the *Notes for New Part III Students*. Both the Welcome Meeting and the Introductory Meeting are expected to last approximately one hour.

All Part III students are expected to attend the Introductory Meeting. If for any reason you are unable to attend the Introductory Meeting, you must contact the Part III Secretary at partiii-secretary@maths.cam.ac.uk ahead of time, or as soon as possible, to ensure that you obtain all relevant information.

3. Departmental Registration

Every Part III student ***must*** formally register with either DPMMS or DAMTP at the start of the academic year. Students may only register with one Department. Each Department is formally responsible for the students registered with it. Students may take courses offered by either Department, irrespective of their registration, and are advised to register with the Department which most closely aligns with their academic interests (i.e. the Department which offers the majority of courses that the student intends to take). If a student finds that the balance of their choice of courses changes, it is possible, though not essential, to change registration (please contact the Postgraduate Office).

Registration is via an online form which will be available on **Wednesday 8th October *only*** via the Part III Academic Support Moodle. Students will be provided with instructions for how to access the online registration form at the Introductory Meeting, and will be required to log in using their Raven password (which they will receive from University Information Services). As well as confirming personal details, students will be asked with which Department they wish to register and to provide an indication of their academic fields of interest.

It is ***vital*** that students complete the online registration process. If they do not, they will be in administrative limbo, and this may have serious consequences. The registration process allows us to ensure that we have accurate information about who is taking Part III, and to ensure that students are on the correct mailing lists and receiving important information and reminders.

Students re-joining the Part III course after a period of intermission must re-register. Those re-joining at the start of the Michaelmas term may do so via the online form as outlined above. Those rejoining later in the academic year should contact the Postgraduate Office directly.

4. Points of Contact

There are many people involved in the delivery of the Part III course and in supporting Part III students. This section details the main points of contact for Part III students. A list of named contacts and email addresses can be found in *Appendix I*.

Students are encouraged to seek advice when they need it. For further guidance on what to do and who to speak to if you encounter a particular problem see *Section 17 – Resolving Problems*.

Subject Advisors

In each field there is a Subject Advisor. The primary responsibilities of the Subject Advisor are to coordinate lecture courses in their subject area and to act as a contact point for expertise in that area. Students are welcome to consult Subject Advisors as necessary. They are good people to

approach for subject-specific advice, e.g. which universities are good for which specialities. If they do not know the answer, they probably know who will.

Departmental Contact

Each student will have a Departmental Contact and you will be notified by email in the first half of Michaelmas term who your Departmental Contact is. Your Departmental Contact will interview you twice during the year in order to check on your progress (see *Section 11 – Progress Interviews*). They will be pleased to offer general advice and will be able to direct you to those with more detailed knowledge where appropriate.

Director of Studies

Your College will appoint a Director of Studies (DoS) for you. Your DoS can provide general mathematical advice, but their primary responsibility is to check that you are making adequate progress. You ***must*** see your DoS at the beginning and end of each term. Copies of your progress interview forms will be sent to your DoS, and other reports on your progress may be sent to them by your Departmental Contact, and certain of the examples class instructors. Your Director of Studies is one of the people you might ask to write a reference for you. If your funding body needs a report on your progress, your DoS or College Tutor is the person to provide it. Your DoS must approve your choice of examination papers and essay at the start of the Easter term.

College Tutor

Your College Tutor takes an overview of your time in Cambridge and an interest in all aspects of your wellbeing. Tutors are expected to be readily available to discuss general administrative and financial matters. They can provide advice and guidance if you encounter personal difficulties and may also want to see you at the beginning and end of each term. They may also receive reports on your progress.

Part III Course Directors

Each Department provides a named Part III Course Director who takes overall responsibility for the course and the students in their Department. The Course Directors may be approached at any time if you are encountering any difficulties. If you have an urgent matter, you should make an appointment to see your Course Director at your earliest convenience. They can be contacted using the department-specific email addresses partiii-director@damtp.cam.ac.uk or partiii-director@dpmms.cam.ac.uk.

Director of Taught Postgraduate Education

The Director of Taught Postgraduate Education (DTPE) within the Faculty of Mathematics has overall responsibility for the operation and strategic development of Part III. You should feel free to contact them at any time with comments or concerns about structural issues and feedback on your general student experience using the specific email address director-tpe@maths.cam.ac.uk.

Associate Director of Taught Postgraduate Education

The Associate Director of Taught Postgraduate Education (ADTPE) oversees the provision of academic support (see *Section 12 – Academic Support*) and liaises closely with the DTPE and the Departmental Course Directors on operational and strategic matters concerning Part III. You may contact them using the specific email address adtpe@maths.cam.ac.uk.

Part III Committee

The Part III Committee advises and makes recommendations to the Faculty Board on all aspects of Part III. There is a list of *Part III Committee members* on the Faculty website. There are two student representatives on the committee. A large part of the work of the Part III Committee is to monitor feedback (examiners' reports, questionnaires, etc.) and to make recommendations to the Faculty Board on the basis of this feedback. It also formulates policy recommendations at the request of the Faculty Board. If you have a suggestion or concern that you wish the Committee to consider you can

- email feedback@maths.cam.ac.uk noting that you want your message to be passed (anonymously) to the Part III Committee;
- email the Chair of the Part III Committee directly at partiii-chair@maths.cam.ac.uk;
- write to the Chair of the Faculty Board of Mathematics who will pass your letter to the Committee.

Although the Faculty Board is the ultimate decision-making body, it will normally send suggestions for changes to Part III to the Part III Committee for preliminary discussion.

The Committee also administers the Part III End-of-Year Questionnaire which all students are asked to complete. Whether you are dissatisfied or not, this is an opportunity to provide detailed feedback on the course and your experience of Part III. This contains a certain number of questions to help elicit your opinion, but you should feel free to add extra comments to anything you wish. The questionnaire results will be read carefully by the Heads of Department, the Part III Course Directors, the DTPE, and by all other members of the Part III Committee.

Faculty Board

The Faculty Board of Mathematics is ultimately responsible for Part III. A list of *Faculty Board members* is available on the Faculty website. There are both undergraduate and postgraduate *student representatives* on the Board. The representatives maintain a number of webpages of useful information.

Administration

Administrative support for the Part III course is shared between the Faculty's Undergraduate and Postgraduate Offices. Each office has specific responsibilities which are outlined in *Appendix I*. Routine enquiries should be directed to the relevant office. If you are uncertain where to direct your enquiry, please contact the Postgraduate Office in the first instance.

5. Lectures

Part III students take lecture courses, consisting either of 24 lectures (for a 3-unit course) or of 16 lectures (for a 2-unit course). Each course takes place in one of the three terms (Michaelmas, Lent, Easter). Examinations for all courses normally take place in the second half of the Easter term. Each student may take up to 16 units of lecture courses for examination. They may also submit an essay for examination credit which counts as 3 units, the same as a 24-lecture course. See *Section 9 – Examinations and Assessment* and *Section 10 – Essays* for further information.

Lectures are given over an eight-week period in each of the Michaelmas and Lent terms and over a four-week period in the Easter term. Lectures are usually timetabled in the mornings for every day

except Sunday (including Saturday), starting **at 9.00 am on Thursday 9th October.** The *lecture timetable* is published online.

All lecture courses will have their own site on Moodle, the University's Virtual Learning Environment. Students will be able to self-enrol on these Moodle sites at the start of each term. Further information on how to access lecture course resources on Moodle will be provided to students at the Introductory Meeting. Where lectures are recorded, recordings are expected to be available via the Moodle site within a few hours of the end of the lecture (see *Section 7 – Recordings*).

There is no requirement that students restrict their choice of courses to those given by one Department. Most students take courses from a small number of subject areas, but some take a wider variety. Courses may be selected freely from those available, within the constraints of the lecture timetable, which is arranged carefully to avoid, as far as possible, clashes between related courses. **It is not possible for students to sit examination papers in two courses that are lectured at the same time as defined by the lecture timetable** (see *Section 9 – Examinations and Assessment*)**.**

Lectures proceed at a brisk rate, and a complete understanding of the material during the lectures themselves is not expected. You should try to appreciate the general outline of the material as each lecture progresses, and then work through the details afterwards. It is very important that you understand the details so that you can develop understanding of the overall structure of the ideas, and a full appreciation of the relationships between them. The depth of understanding needed in Part III is greater than in earlier parts of the Mathematical Tripos or most undergraduate mathematics or physics degree courses elsewhere.

It is important to keep up with the pace of Part III, so you should take care to work through your lecture notes very soon after each lecture. At the beginning of each new lecture a good understanding of previous lectures will be assumed. Going through the lecture notes in detail shortly after each lecture will make it much easier to keep on top of the new material. Most lecturers are happy to answer brief questions on the lectured material.

In exceptional circumstances, the Faculty Board can approve a reading course in addition to the advertised lecture courses. This needs to be proposed by a member of the Faculty who agrees to prepare a syllabus for the course and to examine it. The Faculty Board will only approve such courses where they are convinced that there is a clear and important gap in the range of courses available. If you wish such an additional course to be considered, you should contact the Subject Advisor in the relevant area as soon as possible in the Michaelmas term. All proposals must be submitted to the Faculty Board by the middle of the Michaelmas term. The deadline is **9th November 2025** and is strictly observed.

Towards the end of each lecture course, you will be asked to complete a questionnaire. Please fill it in even if you feel that you have little to say, as the fact that you have little to say is important in itself. The completed questionnaires are read by the lecturer and subsequently considered by the Part III Committee.

6. Examples Classes

Examples sheets for each course are made available by the lecturer at regular intervals and there are examples classes to help you understand the material. For each examples sheet, two (or more) questions will be highlighted. You are encouraged to submit your answers to these highlighted questions for marking, so that you can gain feedback on your understanding of the course and the

appropriate way to answer questions. You may be asked to scan your work (using a smartphone, for example) and submit it electronically by email or on the corresponding lecture course Moodle.

Attending examples classes and submitting your answers for marking are both important parts of studying the course and valuable preparation for the examinations. You will gain much more from a class if you (a) prepare work in advance, (b) submit work for marking, (c) think about the course in general before the class and (d) take an active part in the class.

Please note that although examples sheets and examples classes are very useful in helping you to learn the material in the course, they do not contribute to your formal assessment or to your final classification in Part III. Their sole purpose is to help you learn, so it is a good strategy to make the most of them. In particular, any work you hand in for marking will not "count" towards your mark for the course. Handing in work is nevertheless very helpful for you to obtain feedback on your progress and on the appropriate way to structure mathematical answers to questions.

Most Part III courses are challenging, so the person giving the class may not be able to answer all your questions on the spot. They will probably appreciate an email about any questions you may have in advance of the class. You are encouraged to discuss the lectures with other members of the class both on a formal and informal basis (see *Section 12 – Academic Support* for information about study groups).

Examples classes are given either by the lecturer or by a PhD student or a post-doctoral researcher. In the paragraphs below, the word "instructor" refers to whoever is giving the class.

Registering for examples classes

The arrangements for examples classes are made by the Faculty and not by the Colleges. You will be asked to indicate on Moodle which courses you wish to attend examples classes for by **noon on Friday, 17th October 2025** for the Michaelmas term, and by **noon on Friday, 30th January 2026** for the Lent term. You will be sent an email when registration for examples classes opens and may change your selection of courses at any point leading up to the deadline. **It is essential that you register for the appropriate classes by the deadline.** The complete examples class timetable will be published by the start of Week 3.

If the examples classes for a course are given in more than one group, you will be assigned to a specific examples class group at the time that the examples class timetable is drawn up. You **must** attend the examples class group to which you have been assigned. Except for exceptional circumstances, **it is not possible to change to a different examples class group**. **If you cannot attend a particular class, you must email the instructor at least 48h in advance of the class. If you wish to drop a course entirely, you must email both the instructor and** examplesclasses@maths.cam.ac.uk.

Any queries about the examples class timetable and group assignments should be sent to examplesclasses@maths.cam.ac.uk.

Self-assessment forms

The lecturer/instructor may ask you to complete a self-assessment form before the examples class, which will be available on the lecture course Moodle. This is invaluable in letting the lecturer/instructor know which questions have proved difficult and need more explanation during the class, and serves as proof of attendance for those classes paid for by the Colleges (see below).

CamCORS reports

For some courses, the instructor writes a short report about each member of the class when they claim payment from the relevant Colleges. In this case, the instructor has to keep an attendance record for each class. At the beginning of each such class, **you should give your name**, **College and CRSid** (i.e. the first part of your Cambridge email address) **for the instructor to record**. **You should do this even if the instructor omits to ask**. **For such classes, if you wish to drop out of the course or cannot attend a particular examples class for some reason, you *must* notify the instructor at least 48 hours in advance of the relevant examples class. If the examples class is to be held at the beginning of the following term, notification must be at least 48 hours before the end of the full term**. The instructor may use the information in your self-assessment form to help them write the short report on each student's progress. The purpose of such reports is to help Colleges identify potential difficulties so that appropriate support and help can be put in place.

Feedback

There is an opportunity to leave feedback on examples classes on the lecture course questionnaires at the end of each term.

7. Recordings

The Faculty of Mathematics strongly believes that almost all students will get the most out of their Part III experience by attending lectures and examples classes in person wherever possible. It also regards it as essential for achieving the intended learning outcomes that students keep pace with lectures during term time (see also *Section 5 – Lectures*).

Having said this, the Faculty recognises the value that the provision of recordings can add to the educational experience, especially for students requiring reasonable adjustments, those with short-term illness and those with different learning styles. The Faculty's approach to the recording of teaching sessions is set out in more detail in *Appendix V.*

Some lectures may be recorded for release only to students requiring reasonable adjustments. If you believe this applies to you, and you do not yet have a Student Support Document from the Accessibility and Disability Resource Centre, please ask your College Tutor to liaise with the Postgraduate Office at partiii-coordinator@maths.cam.ac.uk.

Most lecture rooms in the CMS are equipped with lecture capture. Where the lecturer has given consent, recordings are provided as a complementary course resource via the University's Virtual Learning Environment, Moodle. Recordings will remain available until the end of the Part III course in June 2026. Examples class recordings will only be made available to students registered for the examples classes associated with a given lecture course.

You may use the recordings made available to you for your own private study or non-commercial research ***only***. **You may not share or disseminate the recording or material from it, including excerpts, in any format or media. Breaches may be subject to disciplinary action.**

Recording of teaching activity in Part III will proceed on the basis that "students' contribution is optional, not expected, or otherwise not required in order to meet the learning objectives of the session". According to the University's '*Policy on Recordings of Teaching Materials/Lectures, and other Teaching, Learning and Assessment Activities*', recording may proceed without explicit student consent provided that students have been notified that the session is recorded and have been provided with guidance on how to ensure that they are not recorded. **For the avoidance of doubt,**

you should assume that all lectures and examples classes are recorded (unless your lecturer/instructor explicitly confirms otherwise).

Video capture is focused on the blackboards and the lecturer and is not intended to capture the audience. Depending on the lecture theatre, the video feed may capture the heads of some of the students seated in the front rows. If you wish to avoid being recorded in this way, we recommend that you sit towards the back of the lecture room. Similarly, audio capture is via the lecturer's microphone and intended to capture the lecturer's voice only. However, if you want to be absolutely certain that your voice is not recorded then we recommend that you do not ask questions until after the lecturer has returned the microphone to its charging station.

8. Managing Your Workload

In order to balance your workload throughout the year, you are recommended to prepare approximately nine units of lectures to the standard required for examination in each of the Michaelmas and Lent terms. This is slightly more in total than the maximum of 16 units of lectures that can be offered for examination credit (see *Section 9 – Examinations and Assessment*), and you can then decide on your final choices in light of your progress. Of course, you are welcome to attend more than this number of lectures, and at the beginning of term you are certainly recommended to start more than nine units of lectures before deciding which courses to concentrate on after two weeks or so. When it comes to writing your essay, you should be aware that it is very tempting to spend more time on this than an equivalent three-unit lecture course. For this reason, there may be some advantage in taking slightly more units in Michaelmas term. Most students spend the Easter term preparing for the examination, though there are a limited number of examinable Part III courses given during this term.

9. Examinations and Assessment

The following guidelines have been drawn up by the Director of Taught Postgraduate Education (DTPE) and the Chair of the Part III Committee in consultation with the Chair of Examiners. If you need clarification or have questions you are strongly recommended to consult your College Director of Studies, your Departmental Contact, or the DTPE directly.

General Arrangements

Candidates are assessed by means of written examination papers taken at the CMS over a two week period in the latter half of the Easter Term and by means of an essay submitted by a deadline early in the Easter Term. There is no continuous assessment.

Each lecture course has its own examination paper, set and marked by a designated Assessor (usually the lecturer). A 16-lecture course has a 2-hour examination paper counting for 2 units of examination credit and a 24-lecture course has a 3-hour examination paper counting for 3 units of examination credit. Each essay title is set and marked by a designated Assessor and counts for 3 units of examination credit (equivalent to a 24-lecture course). The setting and marking of all examination papers and essays is overseen by a panel of Examiners who are formally independent of the lecturers and Assessors. The Examiners carry out the final classification of candidates, based on the full sets of marks provided by the Assessors (see below and *Appendix IV*).

Candidates are allowed to offer up to **16 units** of credit from examination papers for lecture courses and an additional **3 units** of credit from an essay, giving a maximum of **19 units** of allowed credit in total. Candidates are normally best advised to offer **17-19 units** in total for the examination

(including an essay). Some candidates may decide that it would be advantageous to offer fewer units, in light of their progress during the year; a minimum of **12 units**, including an essay, is recommended for a Pass (see *Marking and Classification* below and *Appendix IV* for further details).

The rubrics for examination papers are normally available on the web in advance, once they have been approved by the Examiners.

The examination timetable will largely be organized according to the lecture timetable, i.e. courses for which lectures are given in the same time slots will also have their examination papers in the same time slot. **It will not be possible for a candidate to take two courses for examination which share a time slot in the lecture timetable for any given term.** Every effort will be made to minimise the number of students having more than one exam in a row (including exams on the same day or in consecutive afternoon and morning sessions) but students should be aware that this cannot be avoided entirely.

At the beginning of the Easter term, all candidates will receive a letter from the Chair of Examiners giving more information on how the examinations are organized together with a form which must be submitted to confirm their choice of examination papers and essay title. Candidates are required to discuss their choices with their Director of Studies who must countersign the form before it is submitted. The final deadline to confirm the choice of examination papers is noon on the second Thursday of Easter Full Term: this year **Thursday 7th May 2026**. The deadline for submitting essays is the same, i.e. **noon on Thursday 7th May 2026**, the second Thursday of Easter Full Term.

The examinations are expected to take place during the period **4th June to 16th June 2026** (inclusive), although this period may be subject to change.

Results are expected to be available to students via CamSIS by the late afternoon on **Wednesday 24th June 2026**.

You will receive a certificate and transcript after the results are released. Please contact undergradoffice@maths.cam.ac.uk for all Part III examination and essay queries.

Marking and Classification

Each candidate is given a numerical mark and a quality mark on each paper. The numerical mark is given as a percentage, while quality marks are α (highest), β, or γ (lowest), refined by plus or minus. An α quality mark signifies a performance of Distinction standard, while a β quality mark signifies a performance of at least Pass (or Honours) standard.[1] Marks may be moderated by the Examiners to take into account the difficulty of the examination paper. Essays are marked similarly, and the Faculty Board has approved the wording of descriptors to be used as broad guidance to Assessors (those who set and mark the essays) to determine the appropriate quality mark for an essay (see *Appendix IV*).

The Examiners consider the performance of each candidate and classify candidates into groups. These are 'Distinction', 'Merit', 'Pass' and 'Fail'. The Faculty Board has recommended that the primary classification criterion is the *Optimum Mark* (see below). **However, candidates at borderlines between the groups are considered individually and very carefully; decisions are not made by applying a simple formula.**

[1] Note that, unlike in Parts IA, IB and II of the Mathematical Tripos, the quality mark is given for the paper, not for individual questions.

The definition of the Optimum Mark can be found in *Appendix IV*. For candidates offering 17 units or less, the Optimum Mark is the weighted sum of the individual numerical marks on each paper and on the essay, with weightings given by the appropriate number of units (2 or 3) divided by 17. For candidates offering 18 or 19 units, the Optimum Mark is obtained *either* by taking a similar weighted sum of all individual marks, with weightings given by the number of units divided by 18 or 19, respectively, *or* by allowing any one mark to be discarded and then applying the definition for 17 units or less, *if* this is to the candidate's advantage. In this way the Optimum Mark makes allowance for the possibility that a candidate may have performed less well on one paper or on the essay. It enables the Examiners to assess candidates based on their best marks and to ensure that the choice of 17, 18 or 19 units will not affect their chances of obtaining a Distinction or a Merit.

In the past almost all candidates who obtained a Distinction or Merit submitted 17-19 units for examination, while candidates who obtained a Pass have usually submitted 12-19 units. The Faculty Board recommends submitting a minimum of 12 units, including an essay, to obtain a Pass (see *Appendix IV*).

For candidates near the Pass/Fail borderline, the Faculty Board has recommended that Examiners consider both the Optimum Mark and an *Adjusted Optimum Mark*. Just as the Optimum Mark enables Examiners to assess candidates on their best marks subject to a threshold of 17 units, the Adjusted Optimum Mark enables Examiners to assess candidates on their best marks subject to a lower threshold of 12 units. The precise definitions can be found in Appendix IV.

As a rough guide to boundaries, in 2025, 2024, 2023 and 2022, Distinctions were awarded to all candidates with an Optimum Mark of at least 72.5%, 73.0%, 73.5% and 73.5%, respectively, while Merits were awarded to all candidates with an Optimum Mark of at least 63.5%, 62.5%, 64.5% and 64.0%, respectively. The Faculty Board expects that a minimum of 5 units at ß- standard or above will normally be required for a Pass in Part III. While the thresholds for Distinction, Merit and Pass in 2026 are expected to be similar to those above, it should be emphasised that exact criteria for classification vary from year to year and are at the discretion of the Examiners.

Transcripts

The Examiners place each candidate in one of the categories Distinction, Merit, Pass, Fail or 'Other/Not classed'. ('Other/Not classed' may include, for example, candidates who were ill for part of the examination.) In addition, the Faculty produces an overall mark to be given, via CamSIS, to each candidate. This mark is obtained by a piecewise linear scaling of Optimum Marks (see *Appendix IV* for how the Optimum Mark is calculated) within each category. The Distinction/Merit, Merit/Honours and Honours/Fail boundaries are mapped to 74.5%, 69.5% and 59.5% respectively. The overall mark for each candidate is then rounded appropriately to integer values. The Faculty also produces a rank for each candidate, ordering candidates by Optimum Mark within each category.

Examination Preparation

Each lecture course normally holds a revision class in Easter term. A talk on *Revision Strategies* will be held in Lent term (see *Appendix II*), and one or more exam practice sessions will be organised in Easter term. Copies of *past Part III examination papers* are available online and bound copies are provided in the Part III room. These bound copies should not be removed from the Part III room.

Data Protection

To meet the University's obligations under the data protection legislation, the Faculty deals with data relating to individuals and their examination marks as follows:

- Marks for Papers and Essays are released routinely to individual candidates and their Colleges after the examinations. The final examination mark book is kept indefinitely by the Undergraduate Office.
- Scripts and Essays are kept, in line with the University policy, for twelve months following the examinations (in case of appeals). Scripts and essays are then destroyed.
- Neither the General Data Protection Regulation nor the Freedom of Information Act entitle candidates to have access to their scripts. Data appearing on individual examination scripts is technically available on application to the University Information Compliance Officer. However, such data consists only of a copy of the examiner's ticks, crosses, underlines etc. and the mark subtotals and totals.

10. Essays

An essay written during the year may be submitted by a deadline early in the Easter Term for 3 units of examination credit (see *Section 9 - Examinations and Assessment*). Note that, since there is a maximum of 16 units of credit that can be obtained from examination papers for lecture courses, it is essential to submit an essay in order to achieve a total amount of examination credit in the range 17-19 units.

A list of essay titles approved by the Examiners will be announced by the end of the fourth week of the Michaelmas term. Some titles are clearly associated with Part III lecture courses, some are not. You are allowed both to take a lecture course for examination and to write an essay that is associated with that course. An essay associated with a lecture course is expected to go beyond the material presented in the lectures. In any case, Assessors for essays must confirm that there is not an unreasonable degree of overlap with any lecture course.

A full list of essay titles together with more detailed descriptions will be made available in an *Essay Booklet* which will be posted on the Part III webpages. The booklet will include general guidelines and instructions about writing the essay, including advice concerning *plagiarism*[2] and the declaration of any relevant work that you have undertaken before the start of Part III.

The Essay Booklet will also give details of the process of allocating essay titles to students, based on their preferences, to ensure that individual titles are not oversubscribed and *all* students receive adequate guidance. In rough outline, after meeting with setters of any titles of potential interest in the fifth and seventh week of Michaelmas term, students will be asked to nominate three preferred titles by **noon on Friday 28th November 2025** via a dedicated Moodle. Students can expect to be notified of their allocated title the following week. A subsequent change of title is possible subject to capacity of the essay setter.

A student may request that an additional essay title be set. Such a request is usually made in cooperation with a suitable member of the academic staff who agrees to act as an Assessor. The deadline for this is **1st February 2026** and must be strictly observed.

There is no prescribed length for the essay in the University Ordinances, but the Faculty Board Advice to Examiners (see *Appendix IV*) suggests that 5,000-8,000 words is a normal length, and exceptionally long essays (e.g. more than twice this maximum) are strongly discouraged. In order to provide

[2] See also the University's definition of academic misconduct at https://www.plagiarism.admin.cam.ac.uk/definition.

greater clarity on the expected length of an essay, the Faculty Board now requires that all candidates use a standard LaTeX template, with the expectation that the normal length of an essay should be between 20 and 30 pages. Further details will be provided in the Essay Booklet.

Many students write the bulk of their essay during the Easter vacation, though there is no obvious reason why writing should not start in the Christmas vacation or in the Lent term (provided care is taken not to spend disproportionately too much time on the essay). Most Colleges will look sympathetically on requests to stay in College accommodation for part of the vacation to work on the essay (and access libraries, for example), though applications to do this should be made well in advance and in many Colleges extra rent will be payable. Please remember that essay setters are not necessarily available for advice during vacations.

Experience has shown that the great majority of Part III students find that working on their essay is an enjoyable change from learning from lectures and is valuable training for research as well as a range of other careers.

There will be two weekly sessions on Wednesday afternoons to help students start thinking about their essays and then to plan and to begin writing.

11. Progress Interviews

Each Part III student has a Departmental Contact who is a member of academic staff in the Faculty. The Faculty requires every Part III student to have two interviews during the academic year with their Departmental Contact, one in each of the Michaelmas and Lent terms. **The two interviews are mandatory.** In preparation for these interviews, the student is asked by email to complete an interview form, giving information about the courses they are taking, their future plans, and any feedback on Part III. The completed form and any other questions about Part III are discussed during the interview. The Departmental Contact completes their section of the interview form by writing comments about the interview itself. The completed forms are considered by the Course Directors and then a copy is sent to the Director of Studies in College. A copy of the completed form is also retained by the Faculty.

As well as providing an opportunity for individual discussion of progress in Part III, the interview process and forms are helpful in allowing the Faculty and College to identify problems so that any necessary help and support can be put in place. If a student does not attend an interview, then a reminder email is sent. If the student does not attend after this, then the College and Course Director are notified of their failure to attend, with the recommendation that the College should follow this up as a matter of urgency.

The procedure and timing of the progress interviews are the same for both DAMTP and DPMMS. The dates and deadlines for interviews are given in the Part III Calendar (*Appendix II*). Students are sent an email by the Postgraduate Office to let them know when and how to complete the interview forms and when to arrange the interview with their Departmental Contact.

Students may also consult their Departmental Contacts for advice at other times outside the two interviews.

Allocation of your Departmental Contact

Each student will be allocated a Departmental Contact by the relevant Course Director. The Course Directors will make these assignments using the subject interests identified by the students during

the registration process. Every attempt will be made to assign a Departmental Contact whose scientific interests match those of the student. Students will be notified of their Departmental Contacts by email during the first half of the Michaelmas term.

Students who have queries concerning their Departmental Contacts should email the appropriate Course Director (for DAMTP or DPMMS), or email partiii-secretary@maths.cam.ac.uk.

12. Academic Support

A variety of events are run throughout the year with the aim of supporting Part III students and helping them with the decision of what to do next. This section provides a summary of the main activities. Further information on *Academic Support* can be found online. You are strongly encouraged to take advantage of these opportunities.

Preparatory Workshops
These workshops are held at the beginning of Michaelmas term and primarily aimed at Part III students who have come to Cambridge from other institutions. They cover the necessary prerequisites in several core areas, including General Relativity, Quantum Mechanics, Fluid Mechanics, Statistics, Measure Theory, Rings and Modules, Foundations, Number Theory, Algebraic Geometry, Differential Geometry, and Algebraic Topology. A first, pre-recorded session for each topic will be available via Moodle before the start of term, and a second in-person session will take place on **Tuesday 7th and Thursday 9th October**. The precise subjects and times will be emailed to students and made available on the Part III Preparatory Workshops Moodle before the start of term.

Drop-In Sessions
Throughout the Michaelmas and Lent terms, we arrange for graduate students in each subject area to be available on a drop-in basis. In this informal setting, Part III students have the opportunity to ask questions on both lecture and background material which they may not be comfortable approaching the lecturer with. If you feel you need more in-depth support, you should contact your College Director of Studies at the earliest possible opportunity.

Study Groups
Students are encouraged to form study groups to review lecture material and work on examples sheets. While many study groups naturally form on their own, we aim to provide opportunities for students with similar mathematical interests to meet and get to know each other so that they may form study groups on relevant topics. We also facilitate their formation via a sign-up sheet early on in the term. Details of the process will be explained to students during the Introductory Meeting.

Part III Seminar Series
Students have the opportunity to give a short mathematical presentation in front of an audience of peers at the end of the Michaelmas and Lent terms. These seminars are grouped by subject and led by a graduate student, who will chair the session and be able to provide guidance during the preparation phase. In Michaelmas, talks usually focus on some aspect of a lecture course, or explore closely related material. In Lent students often choose to present on their Part III essay topic.

Wednesday Afternoons
We host several talks and panel discussions throughout the year, usually on Wednesday afternoons. These are designed to support students in their transition from undergraduate student to independent researcher. Topics covered include PhD applications, research opportunities, advice on

how to prepare a talk, etc. For further information see *Section 18 – Research and Careers* and the Part III Calendar (*Appendix II*).

Part III Café

Light refreshments are offered in the Central Core between 5pm and 6pm on most Wednesdays during Michaelmas and Lent full terms (in particular, whenever a Wednesday afternoon event is scheduled). Part III students are encouraged to use the opportunity to socialise or meet with their study groups.

13. Seminars and General Interest Lectures

You are welcome at any lecture course or seminar organised by the departments. Indeed, you are welcome at most lectures and seminars organised throughout the University provided there is capacity.

All lectures in the University are listed at *timetable.cam.ac.uk*. Notices announcing seminars in DAMTP and DPMMS will be available on *talks.cam.ac.uk*, via the departmental websites, and may be placed on central noticeboards and information screens at the CMS. It is possible to subscribe to talk information for individual seminar series using ical/vcal on *talks.cam.ac.uk*, or sign up to email reminders.

14. Student Representation

There are two student representatives on the Part III Committee, whose role it is to monitor all aspects of Part III and to make suggestions for improvements (see *Section 4 – Points of Contact*). One representative is usually a PhD student who has taken Part III in a previous year. The other is normally a Part III student recruited from the current cohort. If you are interested in this role, please respond to the request for expressions of interest which will be sent out by email in Week 1.

There are also three student representatives (one graduate, two undergraduate) on the Faculty Board, which oversees all teaching in the Faculty of Mathematics (see *Section 4 – Points of Contact*). You will be advised of the election process by email.

15. Feedback

Constructive feedback is welcomed by everyone concerned with Part III. There are a number of different feedback routes:

- The Faculty distributes a short Week-2 questionnaire by email to enable students to give immediate feedback on each lecture course.
- Each lecture course has an end-of-course questionnaire, which includes questions on the course content and the quality of the lectures and examples classes.
- Students are sent an online end-of-year questionnaire in May/June. This includes general questions on the Part III experience as well as the opportunity to give feedback on individual lecture courses.
- Students can email feedback@maths.cam.ac.uk at any time. Such emails will be forwarded to the Chair of the Teaching Committee who then forwards them in anonymised form to the appropriate person (a lecturer, for example, the Director of Taught Postgraduate Education, or the Chair of the Part III Committee). Students will receive an email response.

- If a student wishes to be entirely anonymous and does not need a reply, there is a *web-based feedback* form at https://www.maths.cam.ac.uk/undergrad/feedback.html.

The lecture and end-of-year questionnaires are particularly important in shaping the future of Part III and the Faculty Board urges all students to respond.

16. Equality, Diversity and Inclusion

The Faculty of Mathematics, like the wider University, is committed to a pro-active and inclusive approach to equality, which supports and encourages all under-represented groups, promotes an inclusive culture, and values diversity. We recognise that diversity promotes innovation and creativity, and provides exposure to a wider range of ideas, skills and experiences which we can all benefit from, as well as helping us to attract and retain the best talent from around the world.

The Faculty expects all staff and students to be equally valued and treated with respect, courtesy and consideration, irrespective of, for example, race, disability, faith, gender or sexual orientation. As a member of our community, you have a personal responsibility to behave professionally and you have the right to expect professional behaviour from others.

The Faculty has a zero-tolerance approach to harassment and bullying and supports the University's *Breaking the Silence* campaign, which provides support and guidance to members of the University affected by sexual misconduct.

If you have concerns about any such matter, you are encouraged to approach, in confidence:

- the Faculty EDI Champion Dr Zoe Wyatt EDI.Champion@maths.cam.ac.uk
- the Chair of the EDI Committee Dr Sergio Bacallado sb2116@cam.ac.uk (D1.10);
- the Chair of the Part III Committee, Prof. David Tong partiii-chair@maths.cam.ac.uk (B2.13);
- your College Tutor or Director of Studies.

The Faculty's *Women in Maths* pages contain a wealth of information about and for female mathematicians at Cambridge. The *Emmy Noether Society*, a student society, aims to promote women studying mathematical sciences and hosts talks from female mathematicians and informal events between students and academics, from both Cambridge and other universities. You can join the mailing lists for Maths women Part III students (subscribe here: women's email list) or Maths non-binary Part III students (subscribe here: nonbinary email list), which are used to advertise events. There is an additional *Maths LGBT+ mailing list* (not maintained by the Faculty) that can be joined and which also advertises regular social events.

The majority of toilets on site are gender neutral with one set of gendered toilets on the ground floor of every Pavilion and at the bottom of the stairs in the core.

The Faculty has a quiet room available for reflection or prayer in Pavilion F.

The Equality, Diversity and Inclusion Committee is responsible for both staff and students and oversees a programme of initiatives aimed at enhancing the inclusivity of the environment in which we work and study. We encourage you to share your experiences (both positive and negative) and ideas for improvements by scanning the QR code on the EDI poster or by emailing EDI.Champion@maths.cam.ac.uk. You can find further information on the *Faculty's Equality, Diversity and Inclusion webpage*.

17. Resolving Problems

Part III is a challenging and intensive course. From time to time, Part III students may find that they are having problems or difficulties. This section offers guidance for dealing with various types of difficulty. Your main contacts are your Departmental Contact and the Departmental Course Director in the Faculty, and your Director of Studies and Tutor in your College. Cambridge terms are short, and it is especially important to act without delay if you find that you are having problems or difficulties of any kind.

Problems with a particular course

If you have a problem with a particular lecture course, the simplest way of dealing with it is to contact the lecturer directly. They will be happy to explain difficult points or recommend supplementary reading. If your problem cannot be resolved by contacting the lecturer, then you may wish to consult the relevant *Subject Advisor* or *Part III Course Director*, or email feedback@maths.cam.ac.uk (see *Appendix I* for contact details).

If you are having problems mastering a course, it is very likely that other students are having similar problems. Students are encouraged to organise study groups to discuss the course. Graduate students who did the course in previous years can also be helpful. Part III drop-in sessions provide an opportunity for discussion with graduate students, see *Section 12 – Academic Support*.

Problems with Part III as a whole

Sometimes a student may find that Part III is not the right course for them. If you are worried that this may be the case, you should **at once**[3] consult both your Departmental Contact or the Departmental Course Director **and** your College Director of Studies (if they are not available go directly to your College Tutor). It is especially important to talk to your College as soon as possible. It may be possible to switch to another course, or it may be possible to find a path through Part III, or, after careful consideration and discussion with your Director of Studies and the Course Director, you may find that the best solution may be for you to leave Part III. Colleges provide help and support in deciding and managing the best way forward.

The role of the Colleges

Students from outside Cambridge tend to underestimate the interest their College takes in them and the help and advice that their College can supply. If you need an advocate with the University or the Faculty, your College will provide one. You should consult your College Tutor for advice. Your College aims to provide you with the best support available. Any decision you make with the help and advice of your College is likely to be better than one you make by yourself. However difficult your situation seems to you, it is very likely that your College has had experience in dealing with similar problems and can offer helpful advice and support. Colleges are used to negotiating with the University bureaucracy and with grant-giving bodies. More on *College Pastoral Support* can be found on the Student Wellbeing page.

Wellbeing support

Students sometimes encounter personal difficulties during Part III that are not to do with the course itself (for example, there may be financial difficulties or family illness). If such problems arise, you are strongly advised to discuss the situation with your College Tutor as soon as possible. Colleges are

[3] This is important. Some choices which are available in the first two or three weeks may not be possible later. In particular, University Ordinances treat students who have kept the first 21 days of Full Term differently from those who have not yet done so. From day 21 students become liable for full fees for that term. See https://www.cam.ac.uk/about-the-university/term-dates-and-calendars for dates of Full Term.

used to dealing with such problems, and are experienced in offering advice, help and support. There are many central University resources available to students, via the *Student Wellbeing pages*.

Medical problems and disabilities
Students with medical problems or disabilities are strongly advised to discuss such problems with their College, who will offer advice and support. There is also a University *Accessibility & Disability Resource Centre*.

Intermission
Intermission, also known as 'disregarding terms', is a process whereby students are granted permission by the University to take a complete break from their studies due to medical reasons or other grave cause. The circumstances in question could include physical or mental illness, bereavement, or other difficulties of a non-medical nature. Applications for intermission are considered by the Examination Access and Mitigation Committee (EAMC) and should be made by a student's College, on their behalf. Permission from the EAMC is also required for a student to resume their studies, following a period of intermission. Further details can be found on a dedicated *webpage* provided by the Student Advice Service and in detailed *Notes for Guidance* issued by the EAMC.

Any student who is experiencing serious difficulties and who is considering whether intermission might be appropriate should contact their College Tutor without delay.

The structure of Part III means that students returning from intermission would normally be expected to resume their studies from the start of Michaelmas term (effectively re-starting the year) or from the start Lent term, which may also be academically feasible.

Mitigating circumstances and Examination Allowances
Candidates who are seriously hindered in preparing for, or sitting, their examinations should contact their College Tutor at the earliest possible opportunity. The Tutor will advise on what further action is needed (e.g. securing medical or other evidence) and, in cases of illness or other grave cause, the Tutor can make an application on the candidate's behalf to the University for an Examination Allowance. The University will be introducing a revised framework for Examination Allowances for 2025/26 and guidance will be issued in due course on how this framework applies to Part III.

Examination results
Examinations are a University matter and are covered by strict regulations. Whether you have an issue of concern or not, **you should not, under any circumstances, seek to discuss your examination result with the Assessors or Examiners**.

A candidate who thinks that there is an error in their detailed marks should discuss this with their Director of Studies. If there is good reason to believe that an error has occurred, the Director of Studies can contact the Undergraduate Office within 14 days of the detailed marks being released, requesting a mark check and providing details of the reason for the request. A request for a mark check outside this time frame will not be accepted unless an evidenced good reason for lateness is included.

A candidate can also appeal to the University if they believe there is a case for an *Examination Review*; the University has a standard procedure. The various steps in the procedure are time-limited and you should therefore **immediately** discuss the matter with your College Tutor, who will advise you further. You should note that any investigation by the University will usually confine itself to

seeing that the examiners acted correctly (for example that all the marks you received were entered into the mark book) and not try to second-guess the examiners by re-marking your papers.

Further information can be obtained from College Tutors and from the `Exams' section of the *Student Union's Advice and Support* webpage.

Formal complaints
There is a *formal complaints procedure* to be followed within the University. The Responsible Officer in Step 1 of this procedure for the Faculty of Mathematics is the Chair of the Faculty Board — see *Faculty Board information* for the name of the current Chair.

18. Research and Careers

Many of you will be hoping to pursue a career in mathematical research. Subject advisors and lecturers can advise you on the opportunities for research both within Cambridge, elsewhere in the UK, and abroad. In many cases you need to apply early. Many foreign universities and grant-making bodies have deadlines well before the New Year. Universities in the UK are increasingly making offers early in the Lent term.

Cambridge is anxious to attract the most able students to continue their studies here. Information on how to apply for a PhD place at Cambridge will be provided during the Wednesday afternoon talk *Applying for PhDs* on **Wednesday 29th October 2025**. If you wish to apply for a research position at Cambridge, you are strongly encouraged to speak to potential supervisors as soon as possible. Your Part III Departmental Contact can also be a useful source of information; ask them in your first interview. The availability of Research Council grants varies from one subject area to another, so you need to seek individual advice. Many, but by no means all, awards for research at Cambridge are dependent on your performance in the examination at the end of the year. Both Departments will consider making firm offers in the New Year and DAMTP in particular expects to be able to make several such offers. The Postgraduate Office can provide advice on the formalities of the applications process

Theoretical Physics Test
If you are interested in a PhD in Theoretical Physics, please note that there will be a Theoretical Physics test for Part III students applying for a PhD in Theoretical Physics. This test takes place in the Lent Term. There will be information and details about the test in the Wednesday afternoon talk *Applying for PhDs* on **Wednesday 29th October 2025**.

Careers Service
The University Careers Service holds extensive information about fields of work, individual employers, and current vacancies. There is information online about the *Careers Service*, including an events calendar. There are also a number of careers advisors available to those who wish to book individual advice sessions.

Faculty Careers Website and Mailing Lists
The Faculty operates mailing lists for those wishing to receive information about careers, research positions and other opportunities that are sent to the Faculty for broader circulation and publication. At the start of Part III students are automatically subscribed to:

- phd-opportunities
- job-opportunities

- temporary-job-opportunities.

Further information about the *mailing lists*, including how to unsubscribe, is available online

Talks and Events
There will be several talks and workshops run throughout the year. Details of these events can be found in the Part III Calendar (*Appendix II*):

- *Applying for PhDs*
- *Careers Service Presentation*
- *Research in the UK*
- *Preparing your Part III Essay*
- *How to give a good talk*
- *Introducing Cambridge Mathematics Placements*
- *Writing your Part III Essay*
- *All about exams*
- *Revision strategies*
- *Mathematical Careers in the Real World*

In addition, a *Maths and Quantitative Finance Fair* will be hosted at the CMS by the University Careers Service on **28th October 2025**. This job and internship fair is open to all students and postdocs.

Many research groups in the Faculty also organise presentations to Part III students during the Michaelmas term. Part III students will have the opportunity to hear examples of what the different groups are working on, and to ask questions about their research group and subject.

19. Cambridge Mathematics Placements

Students are encouraged gain experience working as mathematicians during their summer holidays including working as a mathematician outside the environment of a mathematics department. *Cambridge Mathematics Placements* (CMP) facilitates placements of students in industry and in other departments and laboratories within the University. A presentation on these opportunities will be given on **26th November 2025**.

20. CMS Site Safety and Security

Health and Safety at CMS
Students are expected to comply with all local, University and government guidance, as appropriate.

Please note that some individuals may choose to wear face coverings in the CMS, including in lecture theatres. ***Please show consideration for those who make this choice.***

Access and Security at the CMS
Your College is responsible for providing you with a University Card, but it will need activating to work at the CMS and will give you 24/7 access. Ask at Reception for activation of your card. For access to the Betty and Gordon Moore Library, see *Section 22 – Library*.

The main doors into Central Core are normally unlocked on weekdays between 8.00am-5.30pm, and on Saturdays from 8.30am-5.00pm in term time. Magnetically locked doors should not be propped

open, or the alarm will sound. You need a University Card to unlock exterior doors and interior doors outside core hours. ***Keep your card on you at all times.***

Do not let strangers without keys or entry cards into the buildings and **do not** move computers without contacting the Computer Officers. Close manual windows and lock manual doors if you are the last to leave.

The University is not insured for theft of, or damage to, your personal property while you are on University premises, so if you bring a computer with you, you should take out insurance for it. The University is insured for accidental personal injury to staff, students and visitors while they are on University premises, but only where the accident was due to fault on the University's part.

Disabled Students

The building was designed for universal access but please contact CMSFacMg@maths.cam.ac.uk for advice on access to and egress from the buildings and any special requirements that may need to be considered.

General Safety

It is important that all members of the Department staff observe safe working practices and inform the appropriate Site Safety Officer, if they see anything giving cause for concern. The *CMS safety policy* is available online.

All accidents or near misses should be reported, whether or not they involve personal injury. Accident report forms are available from Reception. Completed forms should be submitted to the Department Site Safety Officer as appropriate.

Site Safety Officers are:

- For the Laboratory: Dr Mark Hallworth (37841, mah14@cam.ac.uk)
- For the rest of the site: James Wilcock, Facilities Manager (CMSFacMg@maths.cam.ac.uk)

First Aid

First Aiders may be summoned via Reception (65000). First Aid boxes are held in each common rooms in one of the cupboards and a First Aid room is located on the lower ground floor of Pavilion F. There is an automated external defibrillator (AED) sited on the buttress adjacent to reception leading to the entrance to Pavilion G common room.

If an accident occurs outside normal office hours, telephone Security on 31818. The emergency number for FIRE, POLICE or AMBULANCE is ***via Security on 101, or 1999 on any network phone***.

All incidents must be reported to Reception, and a report form completed. Completed forms should be submitted to the Department Safety Officer as appropriate.

Fire Safety

Familiarise yourself with entrances, emergency exits and fire-alarm assembly points. In the event of the fire alarm sounding, leave the building by the nearest exit. ***Do not re-enter the building, even if the alarm has been silenced, until advised to do so.***

The external doors do not unlock automatically for security reasons; exit in the normal way. Assembly points are shown on posted site plans and Fire Wardens will direct you. Do not attempt to enter another building if the alarm is sounding there also.

In an emergency, and in the unlikely event of doors failing to open, break the glass in the ***green*** "break glass" boxes located alongside each door. Please report this to Reception/Security, as the doors will remain unlocked until the break glass is replaced.

Fire alarms are tested in each building every Wednesday morning between 08.30 and 09.00. The alarm will sound for only a few seconds and for this brief period only it can be ignored; if the alarm continues to sound please evacuate the building. An organised Fire Drill will be carried out in Michaelmas Term.

Smoking
Smoking, including electronic cigarettes and vapour pipes, is not allowed in any of the CMS buildings and is actively discouraged near entrances or automatic vents and windows. Please do not smoke in the garden area outside the Part III room or near the bridge between Pavilion B and Central Core. Ashtrays are provided beneath the cycle shelters around the perimeter of the site and by the circular seating areas outside the main entrance to Central Core.

Post
Part III student post should be directed to your College address. Ask at Reception for help with outgoing post.

Recycling
CMS has one of the best recycling rates within the University with approximately 2/3 of waste recycled; please help us maintain and better this by thinking carefully about how you should dispose of waste and select the correct waste stream. There are **four** waste streams: Non-recycling, Paper and Cardboard, Food and Metal/Glass/Plastic. Minimising our impact on the environment is increasingly important and it costs the University twice as much to dispose of general waste as it does for mixed recyclables waste.

21. Part III Facilities

Part III Room
The Part III room (sometimes known as the Dirac Graduate Centre) is located on the lower ground level of Pavilion B (BL.16). It can be accessed via Pavilion B, or via the external steps from the walkway which connects Pavilion B to Central Core. Part III students are free to access this room at any time, but please note that card access is required after hours and at weekends (see *Section 20 – CMS Site Safety and Security*).

Part III Kitchen and Coffee Area
Kitchen facilities (kettle, microwave, fridge etc.) outside the Part III room are for the use of Part III students. Limited quantities of milk and sugar are provided free of charge. Please wash and clear away any crockery and cutlery after use. The refrigerators should not be used for long-term storage of food as space is limited. Please use the recycling bins for paper, cardboard, glass, plastic bottles and aluminium cans. **Users should wash their hands before and after use of the kitchen facilities.**

Other Catering Facilities
The central dining facility is open Monday – Friday from 8.30 to 15.00 for snacks, sandwiches, and coffee and tea. Please ensure you return your trays to the collection points and place all unwanted items in the appropriate bin. There are vending machines in the Central Core and in the Betty & Gordon Moore Library.

Lockers
The lockers located in the coffee area of the Part III room and in the lobby immediately outside the room are available for student use. Students should purchase their own lock to secure their locker. ***All lockers must be emptied by 30th June 2026. Lockers will be cleared shortly thereafter.***

Computing, Printing and Photocopying Facilities
For details of the computing and printing facilities in the Part III room see *Section 23 – Email and Computing*. There is a photocopier available for your use. Currently there is no charge for copying. Please report any problems with the photocopier to Reception. Spare paper for printers and photocopier is kept alongside the equipment in the Part III room. Call Reception for more paper. When Reception is closed, limited paper supplies may be taken from B0.01. Please use the recycling bins for used printer paper.

22. Library

Located on the CMS site, the Moore Library (full name- Betty and Gordon Moore Library) is the principal STEM library of the University holding collections across the whole of STEM (with the exception of Clinical Sciences, which are held at the Medical Library). In particular, the library houses extensive collections in Mathematics and the Physical Sciences. Students are pre-registered for borrowing on the library management system as part of their general enrolment to the University.

There are many specialist print and online resources to support mathematical sciences in Cambridge, which are detailed in the Maths LibGuide. Other libraries in Cambridge may be relevant to postgraduate students. For example, the University Library in West Road holds a large collection of older mathematical material.

The library discovery system is iDiscover, which allows users to search the University's print and online collections. Users are also able to manage their loans using iDiscover, to check their loans and other important information.

You may find that you have to search existing academic literature for your work. The Moore Library's Research Support team will be happy to help you do this. Feel free to get in touch with them with any enquiries at moore-library@lib.cam.ac.uk. The team can help you with research and study enquiries, or direct you to expert help where needed.

The complete range of texts supporting the Mathematical Tripos are listed through our Leganto pages, which can be found at https://moore.libraries.cam.ac.uk/reading-list-service/maths-reading-lists#partiii.

For current library opening hours, please refer to the Moore Library website.

23. Email and Computing

Email and Computing Accounts
Students will be issued with a *University email account* and a Desktop Services computing account by the University Information Services (UIS). Students who are new to Cambridge are able *to retrieve passwords for these accounts in advance of arrival in Cambridge* as part of the University's Student Registration process. Students returning to Cambridge should be able to access their previous

account. Accounts that have been closed down during the summer vacation by UIS can be reactivated upon request.

Cohort Mailing Lists
The Faculty uses student mailing lists for issuing important information to the entire student body, or specific student groups. They are moderated to prevent students receiving unofficial email and/or junk email. Most students will have *no* need to send email to these lists, and should do so only if information is of genuine *academic interest to all* students.

Noticeboard Mailing Lists
The Faculty also operates email lists for students who wish to receive information about careers, courses or jobs via a system called 'noticeboard'. All new students are added to this mailing list at the start of their course. If you wish to opt out of the 'noticeboard' you are free to do so.

Women and non-binary Part III student mailing lists
The Faculty operates email lists for women Part III students and non-binary Part III students for circulation of information, largely events based, aimed at female or non-binary students. Students are subscribed to these lists at the start of the academic year based on data held in CamSiS. You can opt in or opt out of these lists at any time. Visit: *https://lists.cam.ac.uk*

Wi-Fi (Eduroam)
You can connect your personal devices to the Internet using Wi-Fi on most of the site. Further information on wireless services, including instructions for how to connect to eduroam with your device, are available from the UIS *Wifi Services* page.

Computing equipment available to students at the CMS
There are 8 monitors and docking stations located in the Part III room. Students can connect their laptops to these monitors and use them as a secondary screen. Requests for computer peripherals for use in the Part III room can be made to the helpdesk office (B0.25).

Printing at the CMS
Students are encouraged to use the follow me printers. There is a follow me printer in the Part III room. The UIS have a page about the managed print service (follow me printing) which can be found at https://help.uis.cam.ac.uk/service/printing.

Computing Help
Please email requests for computing assistance to help@maths.cam.ac.uk.

Computing Courses
The UIS offers a wide range of training courses which are open to members of the University. Please see the UIS online *training timetable* and booking facility for details. UIS online training could be found here : https://help.uis.cam.ac.uk/service/support/training/online-training

Computing Rules
Users of Faculty computing facilities are subject to some rules which are published by *UIS.* In particular your attention is drawn to the following:

- Computer accounts are issued for use by a single individual. You must not log in using another person's login name or allow any other person to access facilities using your login name.
- Computer hardware should be used carefully and left in a condition fit for others to use.

- Information belonging to other users is confidential. You must not read, access, or modify any file not owned by you without the explicit permission of the owner. When a file is not protected (i.e. read or write access by others is allowed), it should not be assumed that permission to copy or modify the file is granted.
- Proprietary software must be used correctly in accordance with licensing conditions and must not be copied or modified. If you install any proprietary software, including shareware, on Part III computers, you must hold a valid licence.
- Users must **not access** any material on the Internet or other facility which:
  a) is libellous, racist, obscene or indecent;
  b) is likely or designed to cause offence, inconvenience or anxiety to others;
  c) infringes copyright law or any other law (images and sound particularly);
  d) is of a character likely to bring the University or Faculty of Mathematics into disrepute.
- If you encounter such material by accident you are advised to stop viewing immediately and avoid accessing it again.

Appendix I: Key Contacts 2025-2026

Role	Name	Email	Room
Director of Taught Postgraduate Education	Dr J. Evans	director-tpe@maths.cam.ac.uk	B1.22
Associate Director of Taught Postgraduate Education	Dr R. Reid-Edwards	adtpe@maths.cam.ac.uk	B2.24
Chair of the Part III Committee	Prof. D. Tong	partiii-chair@maths.cam.ac.uk	B2.13
DAMTP Course Director	Dr M. Colbrook	partiii-director@damtp.cam.ac.uk	F0.14
DPMMS Course Director	Prof. M. Gross	partiii-director@dpmms.cam.ac.uk	E1.08

DAMTP Subject Advisors

Applied and Computational Analysis	Dr H. Fawzi	hf323@cam.ac.uk	F0.16
Astrophysics	Dr H. Latter	hl278@cam.ac.uk	F1.19
Continuum Mechanics	Prof. E. Lauga	el389@cam.ac.uk	H0.07
Soft Matter and Biological Physics	Prof. R. Goldstein (Michaelmas and Easter) Prof. R. Jack (Lent)	R.E.Goldstein@damtp.cam.ac.uk	H0.06
Particle Physics and Quantum Fields	Prof. D. Tong	d.tong@damtp.cam.ac.uk	B2.13
Quantum Computation, Information and Foundations	Prof. B. Beri	bfb26@cam.ac.uk	B2.03
Relativity and Cosmology	Prof. E. Pajer	ep551@cam.ac.uk	B1.02

DPMMS Subject Advisors

Subject	Advisor	Email	Room
Algebra	Prof. S. Martin	sm@dpmms.cam.ac.uk	C2.05
Algebraic Geometry	Prof. D. Ranganathan	dr508@dpmms.cam.ac.uk	E1.01
Analysis and PDEs	Prof. N. Wickramasekera	ngw24@cam.ac.uk	E1.11

Combinatorics	Prof. I. Leader	ibl10@cam.ac.uk	C2.02
Differential Geometry and Topology	Dr A. Kovalev	A.G.Kovalev@dpmms.cam.ac.uk	E1.13
Foundations	Prof. B. Loewe	B.Loewe@dpmms.cam.ac.uk	C0.10
Number Theory	Dr R. Zhou (MT, LT) Prof. J. Thorne (ET)	rz240@cam.ac.uk jat58@cam.ac.uk	E1.04 E1.18
Probability	Prof. W. Werner (MT) Dr S. Sarkar (LT, ET)	ww295@cam.ac.uk ss2871@cam.ac.uk	D2.04 D2.07
Statistical Theory	Prof. R.J. Samworth	R.J.Samworth@statslab.cam.ac.uk	D1.18
Applied Statistics	Dr S. Bacallado	sb2116@cam.ac.uk	D1.10
Information and Finance	Prof. I. Kontoyiannis	ik355@cam.ac.uk	D1.09

Administrative Contacts

If you are uncertain which office to contact, please contact the Postgraduate Office in the first instance.

Office	**Responsibilities**	**Email**	**Room**
Undergraduate Office	Lecture Timetable Examinations Part III Essays Results & Transcripts	undergrad-office@maths.cam.ac.uk	B1.29
Postgraduate Office	Registration Guide to Courses Progress Interviews	partiii-secretary@maths.cam.ac.uk	C0.15
	Examples Class Timetable	examplesclasses@maths.cam.ac.uk	
	End-of-Year Questionnaire	partiii-survey@maths.cam.ac.uk	
	Applications for Continuation to PhD	DAMTP: damtpres@maths.cam.ac.uk DPMMS: purephd@maths.cam.ac.uk CMI: cmi@maths.cam.ac.uk	

Other Useful Contacts

	Email
Computing Help	help@maths.cam.ac.uk
Facilities	facilities@maths.cam.ac.uk
Reception	reception@maths.cam.ac.uk
Faculty Hotline	feedback@maths.cam.ac.uk

Appendix II: Provisional Part III Calendar 2025-26

October	
Tue 07	Michaelmas Full Term begins
Tue 07	*Welcome to Part III for MASt Students* 09:00 (Group B) or 10:30 (Group A)
Tue 07	Preparatory Workshops (in-person sessions) 14:00 and 16.00
Wed 08	*Introductory Meeting for All Students* 09:00 (Group A) or 10:30 (Group B)
Wed 08	*DPMMS Subject Advisor Presentations* 12:00 *DAMTP Subject Advisor Presentations* 14:00 (see Academic Support Moodle for details)
Thu 9	Michaelmas term lectures begin
Thu 9	Preparatory Workshops (in-person sessions) 14:00 and 16:00
Wed 15	*Meet-and-Greet by Subject Area* Times to be confirmed
Thu 16	Women and non-binary event 17:00-18:00
Fri 17	Deadline for examples class sign-up (Michaelmas term courses) 12:00 (noon)
Thu 23	*Careers Service Presentation* 16:00
Wed 29	*Applying for PhDs* 16:15 (Group A) or 17:30 (Group B)
Wed 29	*Maths and Quantitative Finance Fair 2025* 15:00-18:00
November	
Sat 01	List of examination courses announced in Reporter by this date
Wed 05	*Planning your essay: reading, understanding, structuring* 16:15 (Group B) or 17:30 (Group A)
Fri 07	Essay guidance and essay descriptions are expected to be available to candidates by this date.
Sun 09	Deadline for Faculty members to request additional examination papers

Wed 12	*Research in the UK* 16:15
Thu 13	Michaelmas Term Progress Interviews take place this week (Week 6)
Wed 19	*How to give a good talk* 16:15
Wed 19	Deadline for return of completed Michaelmas term Progress Interview forms
Wed 26	*Introducing Cambridge Mathematics Placements* 14:00 (note start time)
Fri 28	Essay registration deadline 12:00 (noon)
December	
Wed 03	Last day of Michaelmas term lectures
Thu 04	*Part III seminar series*
Fri 05	*Part III seminar series* Michaelmas Full term ends List of essay titles and additional examination papers announced in Reporter by this date.
January	
Tue 20	Lent Full Term begins
Thu 22	Lent term lectures begin
Throughout	*Cambridge Mathematics Placements Project Presentations* Various lunch-time seminars
Wed 28	*Writing your essay: from outline to final product* 16:15 (Group A) or 17:30 (Group B)
Fri 30	Deadline for examples class sign-up (Lent term courses) 12:00 (noon)
February	
Sun 01	Deadline for candidates to request additional essay titles Deadline for candidates to raise concerns about the examination timetable
Wed 04	*All about exams* 16:15 (Group B) or 17:30 (Group A)
Fri 13	Additional essay titles are expected to be available to candidates by this date.
Wed 25	*Mathematical Careers in the Real World* 16:15
Thu 26	Lent Term Progress Interviews take place this week (Week 6)
March	
Wed 04	Deadline for return of completed Lent term Progress Interview forms. List of additional essay titles expected to be announced in the Reporter by this date.

Wed 11	*Revision strategies* 16:15
Wed 18	Last day of Lent term lectures
Thu 19	*Part III seminar series*
Fri 10	*Part III seminar series* Lent Full term ends
April	
Tue 28	Easter Full term begins
	Candidates receive information about examination entry form (to indicate choice of examination papers and essay)
Thu 30	Easter term lectures begin
May	
Thu 07	Deadline for return of forms giving choice of examination papers and essay Deadline for submission of essays 12:00 (noon)
Wed 27	Easter term lectures end
June	
Thu 4	Part III examinations expected to begin
Tue 16	Part III examinations expected to end
Fri 19	Full term ends
Wed 24	Examination results expected to be available via CamSIS from 16:30.
Thu 25	Examination results expected to be released so you can discuss them with Faculty members.
Fri 26	*Part III End-of-Year Party* 14:00

Appendix III: Aims and Objectives; Competence Standards

Aims and Objectives of Part III of the Mathematical Tripos

The **aims** of the Faculty for Part III of the Mathematical Tripos are:

- to provide a challenging and interesting course in mathematics and its applications for a range of students that include some of the best both in this country and the world;
- to provide a course which whilst mainly aimed at students preparing to do research can be useful to appropriate students going into other careers;
- to give students a background which will enable them to make an appropriate choice of research subject and to prepare them for research in that subject;
- to provide an integrated system of teaching which can be tailored to the needs of individual students;
- to develop in students the capacity to follow and to expound long and complex mathematical arguments;
- to continue to attract outstanding students from all over the world;
- to produce high calibre students with skills sought after by leading graduate schools and businesses throughout the world;
- to provide an intellectually stimulating environment in which future leading mathematicians from many countries can have the opportunity to develop their talents and enthusiasm together to their full potential;
- to maintain and extend the position of Cambridge as a leading international centre for research and teaching in mathematics.

The **objectives** of Part III of the Mathematical Tripos are such that after completing the course students should:

- have a good background in their chosen field;
- be well on the way to becoming independent learners, expositors and thinkers.

Competence Standards in the Mathematical Tripos

Within the Equalities Act 2010, *competence standards* are defined as the "academic, medical or other standard[s] applied for the purpose of determining whether or not a person has a particular level of competence or ability". The Faculty Board has approved the following statement of *Competence Standards for the Mathematical Tripos*, in conjunction with the *Aims and Objectives* for each Part of the Tripos.

- *Primary competence standard* (attracting a substantial majority of possible examination credit):

  The capacity to understand and recall mathematical concepts and results of an appropriately advanced level and to use these to devise arguments to solve unseen problems,
  - without access to external resources (except such as may be approved by the Examiners from time to time),
  - and under an appropriate time constraint.

  This competence standard should apply to all subjects within a given Part of the Tripos, with assessment being carried out at the end of the entire period of study for that Part, thereby requiring a synoptic understanding of the relevant course material.

- *Secondary competence standards* (attracting a minority of possible examination credit):

  For Part III: The ability to understand and synthesise mathematical results and arguments, as described in external sources, and to report that material coherently and concisely in the form of an essay.

Appendix IV: Faculty Board Advice to Examiners

Examinations

Courses of 24 hours duration count as 3 units and are examined by 3-hour papers. Courses of 16 hours duration count as 2 units and are examined by 2-hour papers. Students may write one essay which counts as 3 units. Students may take up to 19 units for examination, with a maximum of 16 units from examination papers on lecture courses.

Each paper and essay is set and marked by an Assessor. They award marks out of a maximum of 100 and in addition assign a 'quality mark'. This will usually be a straight reflection of the numerical mark in accordance with the table below. The minimum performance deserving of a distinction is associated with α-, while the minimum performance deserving of a pass is associated with β-.

92-100	α+
81-91	α
70-80	α-
59-69	β+
48-58	β
37-47	β-
26-36	γ+
15-25	γ
1-14	γ-

However, if the Assessor feels that the quality of a candidate's work is not properly represented by the numerical mark, then the quality mark will reflect this. When there is a discrepancy between the numerical and quality mark this must be explained in a note to Examiners.

In addition, Assessors may make comments about the nature of the performance of individual candidates and about the overall difficulty of the paper.

The Faculty provides a Transcript to each successful candidate soon after the results are announced, giving the numerical mark and quality mark for each paper and for the essay.

On each written paper the number of questions for which credit may be obtained may be restricted. If a candidate submits more attempts than are allowed for credit in the rubric then Assessors will mark all attempts and the candidate is given credit only for the best attempts consistent with the rubric. This policy is intended to deal with candidates who accidentally attempt too many questions: it is clearly not in candidates' best interests to spend time tackling extra questions for which they will receive no credit.

Classification

As a result of the examination, each candidate is placed in one of the following categories: Distinction, Merit, Pass, Fail or 'Other/Not classed'. 'Other/Not classed' may include, for example, candidates who were ill for part of the examination.

The Faculty Board has laid down the following criteria for deciding the different classes.

Distinction. Candidates will have demonstrated mastery over a considerable range of material. Their performance will have been such as would be expected of someone starting PhD research at a leading mathematics department.

Merit. Candidates will have performed at first class level. In the words of the criteria used for a first class in our undergraduate examinations they 'will have demonstrated a good command and secure understanding of examinable material. They will have presented standard arguments accurately and showed skill in applying their knowledge.'

Pass. Candidates will have performed at upper second class level. They will have demonstrated the ability to absorb and understand difficult material but there may remain gaps in their understanding and they may not always be able to apply their knowledge successfully.

The Examiners are responsible for assigning a class to the candidates but are not expected to rank candidates within classes, except by using the Optimum Mark. The Chair of Examiners should discuss with the external Examiners which candidates are likely to lie on borderlines so that the external Examiners may pay particular attention to the scripts of those candidates.

The Examiners are asked to classify students according to the descriptions above taking account of the following guidance issued by the Faculty Board. If the Examiners have difficulty in applying any of the Faculty Board recommendations, then they are asked to draw attention to the specific problem in the examination report.

The Faculty Board expects that the Examiners will award about 35%-40% Distinctions and about 60% (±2.5%) Distinctions and Merits. Based on past experience the Faculty Board expects the number of Fails to be small but to fluctuate substantially from year to year.

In addition, the Faculty Board has issued the following advice to Examiners.

In classing students the Examiners will not consider whether they have chosen to be examined on 17, 18 or 19 units. Since judgements are made on the best papers the choice of 17, 18 or 19 units will not affect their chances of obtaining a distinction or a merit. Although it is possible to get a distinction or a merit with fewer units, the Examiners may take into account the fact that students taking fewer than 17 units have covered a smaller range of courses.

In deciding whether to pass students the Examiners will not consider the number of units the students have chosen to be examined on provided the number is greater than or equal to 12 and includes an essay. Although it is possible to pass with fewer units, the Examiners may take into account the fact that students taking fewer than 12 units have covered a smaller range of courses.

Students should not be penalised for the act of sitting a paper.

In the light of the above advice, the Faculty Board has recommended that the primary classification criterion should be the *Optimum Mark*, which is defined below. However, the treatment of candidates near borderlines may include other considerations, for example quality marks. The treatment of candidates on the Pass/Fail borderline depends on individual considerations. Near this

borderline, the Faculty Board has recommended that Examiners consider both the Optimum Mark and an *Adjusted Optimum Mark*, as defined below.

The Optimum Mark

The Optimum Mark is calculated as follows. Suppose a student offers examination papers and an essay, all labelled by i, with i = 1, … , r. For each paper or essay, let x_i be the mark received and n_i be the number of units, so that n_i is either 2 or 3, as appropriate, and $\sum_{i=1}^{r} n_i \leq 19$. First find the Mean Mark M_{all} given by the following weighted sum:

$$M_{\text{all}} = \frac{\sum_{i=1}^{r} n_i x_i}{\max\{ \sum_{i=1}^{r} n_i, 17\}} .$$

Then, for each k = 1, … , r, find the Mean Mark M_{-k} that results from dropping paper k:

$$M_{-k} = \frac{\sum_{i \neq k} n_i \, x_i}{\max\{ \sum_{i \neq k} n_i \, , 17\}}$$

The Optimum Mark M is defined to be $\max\{M_{\text{all}} , M_{-1}, \dots , M_{-r}\}$.

The Optimum Mark enables examiners to consider candidates based on their best marks subject to a threshold of 17 units. The Adjusted Optimum Mark is defined in an analogous way, but with a threshold of 12 units.

With notation as above, let K be any non-empty subset of $\{ 1, \dots , r \}$ corresponding to a subset of the papers offered, and define the adjusted mean mark M_K for this subset to be the following weighted sum:

$$M_K = \frac{\sum_{i \in K} n_i \, x_i}{\max\{ \sum_{i \in K} n_i \, , 12\}}$$

The Adjusted Optimum Mark is defined to be the maximum value of M_K for any subset K.

Essays and grade descriptors

As stated above, the Assessor for each essay awards a numerical mark out of a maximum of 100 and in addition assigns a 'quality mark'. The Faculty Board has specified that, just as with written papers, the minimum performance deserving of a distinction on an essay is associated with α-, while the minimum performance deserving of a pass is associated with β-.

The Faculty Board does not necessarily expect the mark distribution for essays to be the same as that for written examinations. Indeed, in recent years for many students the essay mark has been amongst their highest marks across all examination papers, both because of the typical amount of effort they have devoted to the essay and the different skill set being tested (compared to a time-limited written examination). The Faculty Board wishes that the hard work and talent thus exhibited should be properly rewarded.

There is no prescribed length for the essay in the University Ordinances and the Faculty Board recognises that the length of an essay is only a weak reflection of the quantity of work involved and

bears no relation to the quality of the work done. However, it is anxious to prevent the essay absorbing too much of the candidate's time. It is therefore perfectly content if a topic is set for which an excellent essay requires about 5000 words and would normally be unhappy if a topic were set for which an excellent essay required more than about 8000 words.

In order to provide greater clarity, the Faculty Board now requires that all candidates use a standard LaTeX template and has agreed that the expected length of an essay should normally then be between 20 and 30 pages and should only exceptionally be more than 35 pages.

Where an Assessor feels that a relaxation of the upper limit of 35 pages is justified for a particular essay title, they should specify an appropriate page range and upper limit, to be communicated to candidates in the essay booklet, and provide the Examiners with a clear explanation of why this is necessary, to be considered when the essay title is approved. The justification should explain why the increased upper limit does not represent an unreasonable increase in the time and effort that a candidate is expected to devote to this particular essay topic compared to others. Valid reasons might include the requirement to include an unusual number of diagrams, or the necessity to include data or code with the core of the essay.

In light of remarks above, as well as the comments of both internal and external Examiners over the years, the Faculty Board considers the following descriptors of the broad grade ranges for an essay to be appropriate. The Board trusts that these guidelines prove useful in guiding the judgement of the inevitably large number of Assessors marking essays, and thereby strengthen the mechanisms by which all essays are assessed uniformly. They are intended to be neither prescriptive nor comprehensive, but rather general guidance consistent with long-standing practice within the Faculty.

An Essay of α-Grade Standard (α-, α, α+)

Typical characteristics expected of an essay of α-grade standard include:

- Demonstration of clear mastery of the underlying mathematical content of the essay.
- Demonstration of thorough understanding and cogent synthesis of advanced mathematical concepts.
- A well-structured and well-written essay of appropriate length with
    - few grammatical or presentational issues;
    - a clear introduction demonstrating an appreciation of the context of the central topic of the essay;
    - a coherent presentation of that central topic;
    - a final section which draws the essay to a clear and comprehensible end, summarising well the key points while suggesting possible future work.

An essay of α-grade standard would be consistent with the quality expected of an introductory chapter of a PhD thesis from a leading mathematics department. A more elegant presentation and synthesis than that presented in the underlying papers, perhaps in the form of a shorter or more efficient proof of some mathematical result would be one possible characteristic of an essay of αgrade standard. Furthermore, it would be expected that an essay containing publishable results would be of α+ standard, but, for the avoidance of doubt, publishable results are **not necessary** for an essay to be of α+ standard. A mark in the α+ range should be justified by an explicit additional statement from the Assessor highlighting precisely which aspects of the essay are of particularly distinguished quality.

An Essay of β-Grade Standard (β-, β, β+)

Essays of β-grade standard encompass a wide range, but all should demonstrate understanding and synthesis of mathematical concepts at the level expected for a pass mark in a Part III lecture course.

Typical characteristics expected of an essay of β+ standard include:

- Demonstration of good mastery of most of the underlying mathematical content of the essay.
- A largely well-structured essay of appropriate length with
    - some minor, grammatical or presentational issues;
    - an introduction demonstrating an appreciation of at least some context of the central topic of the essay;
    - a reasonable presentation of that central topic;
    - a final section which draws the entire essay to a comprehensible end, summarising the key points.

Such essays would not typically exhibit extensive reading beyond the suggested material in the essay description, or original content.

Typical positive characteristics of an essay of β- (pass) standard include:

- Demonstration of understanding of some of the underlying mathematical content of the essay;
- An essay consistent with the quality expected of an upper-second-class final-year project from a leading mathematics department;

while negative characteristics might include some non-trivial flaws in presentation, for example:

- An inappropriate length;
- Repetition or lack of clarity;
- Lack of a coherent structure;
- The absence of either an introduction or a conclusion.

For the avoidance of doubt, a key aspect of the essay is that the important mathematical content is presented clearly in (at least close to) the suggested length. An excessively long essay is likely to be of (at best) pass standard.

Appendix V: Recording of Teaching Sessions

The following guidance applies to all Parts of the Mathematical Tripos and the Mathematics Courses in Parts IA and IB of the Natural Sciences Tripos:

1. We expect students to attend all lectures in person where possible. We believe that almost all students will learn more effectively by attending lectures in person and by interacting with other students.

2. We anticipate that recordings of lectures will generally be made. These will be made available on Panopto and linked from the corresponding course Moodle. However, some lectures may not be recorded. For example, individual lecturers have the right (and may have good reasons) not to agree to recordings being made. Lecture courses that will not be recorded will be marked as such on the Lecture List. Equipment failure or human error may also result in recordings not being available–lectures will not be re-recorded in such cases.

3. Some lectures may be recorded just for release to students requiring reasonable adjustments. If you believe this applies to you, and you do not have a Student Support Document from the Accessibility and Disability Resource Centre, please consult your College Tutor[4] . Lecture courses with restricted availability of recordings will be marked as such on the Lecture List.

4. Lecturers may try to maximise the effectiveness of their teaching for the in-person attendees. This means that some aspects of the teaching (e.g. hand gestures, pointing to a projected image, writing on a side board, dialogue with the audience) may not be captured by the recording.

5. If you attended a lecture in person, you should view the recording as a resource that might allow you to check a specific section in case you need further clarification. However, your understanding will typically be more effectively enhanced by discussing such points in person with your peers, your supervisor (Parts IA, IB and II) or examples class instructor (Part III). Rewatching an entire lecture is almost certainly a less effective use of time than working carefully through your lecture notes, reworking a calculation or proof by yourself, or attempting to construct your own examples.

6. If you did not attend a lecture in person, you should treat the recording as you would an inperson lecture. This means listening actively, taking notes, and avoiding any concurrent activity which might distract you from the lecture's content. You should not approach a recording with the expectation to watch it more than once. Also, bear in mind that mistakes can sometimes be made when lecturing, and you should not regard every single word of the recording as incontrovertible truth.

7. It is very important to create good study habits, and to keep pace with lecture material throughout the term as it is being delivered. If you do miss a lecture, you should catch up on the content as soon as possible afterwards, ideally before the next lecture. To aid with this, in some Parts of the Tripos the availability of lecture recordings may be restricted.

8. Small-group teaching:

   (a) The Faculty would not normally expect supervisions for Parts IA, IB and II to be recorded. However, supervisions are a College matter.

   (b) In Part III the size of examples classes can vary considerably between courses, and there is a range of pedagogical approaches across the Faculty. Whether or not a class may be recorded will depend on multiple considerations. Examples classes that will be recorded will be marked as such on the timetable.

Any queries regarding the above advice should be addressed to the Director of Undergraduate Education at undergraddirector@maths.cam.ac.uk (Parts IA, IB and II) or the Director of Taught Postgraduate Education at directortpe@maths.cam.ac.uk (Part III).

[4] College Tutors needing to liaise with the Faculty concerning access to recordings should email the Undergraduate Office at undergradoffice@maths.cam.ac.uk (Parts IA, IB and II) or the Postgraduate Office at partiii-coordinator@maths.cam.ac.uk (Part III).