



Department
of Statistics

Assessment and Feedback Statement

A statement of the Department of Statistics' assessment and feedback strategy for students, departmental staff, School leadership and professional services, as well as external assurance agencies







Welcome to the Department of Statistics. In this document you will find the various ways in which we plan and deliver assessment and feedback. We are also keen to hear from you and in this booklet you will find various ways that you can do so. I hope you will have a rewarding and stimulating time at LSE!

Dr Erik Baurdoux, Deputy Head of Department for Teaching

The purpose of this strategy is to provide a framework within which the department's staff will plan and deliver assessment and feedback, offering the basis for the School to provide regulation and review that support delivery of these assessment strategies and arrangements, and the basis for demonstrating compliance with national educational frameworks such as the Quality Assurance Agency for Higher Education (QAA).



It covers things like:

- How assessment on courses is relevant to specific disciplines;
- How it allows students to demonstrate achievement of programme learning outcomes;
- How formative assessment – when supported by effective feedback – prepares students to succeed in summative assessment;
- What kind of feedback students can expect, and by when.



Assessment Aims

Programme oversight is achieved by the Department's Teaching Committee which meets at least once per term and discusses course evaluation, programme reviews, examination performance and related issues. These are also discussed and set out as part of the annual programme monitoring exercise.

Undergraduate

There are three undergraduate programmes in Statistics: **Actuarial Science; Business Mathematics and Statistics;** and **Statistics with Finance.** These programmes aim to provide degree courses suitable for students of high quality, combining and relating mathematics, statistics, finance and social sciences, and prepare students for further study, or for professional and managerial careers, particularly in areas requiring the application of quantitative skills.



By the end of their chosen programme of study, students should be able to show:

- Competence in the application of mathematical and statistical techniques (all ST and MA courses)
- A sound knowledge of the principles underlying standard applications in the relevant subject
- The ability to think in a critical manner
- Skill in making formal and informal inferences on the basis of statistical data (all ST courses)
- The ability to formulate and develop mathematical arguments in a logical manner
- The ability to understand, formulate and use quantitative models
- Skill in acquiring new understanding and expertise
- The opportunity to gain exemptions from some examinations of the Institute and Faculty of Actuaries: This is done either through individual exemptions or through the accreditation system. For details see: lse.ac.uk/statistics/study/prospective/UG-Programmes/exemptions.aspx (BSc in Actuarial Science only)
- Knowledge and ability in applications of mathematical and statistical techniques
- Competence in the use of statistical software

Taught Postgraduate

There are two MSc programmes in Statistics: **Risk and Stochastics** and **Statistics**. In addition, there is a **Financial Statistics** stream to the MSc Statistics programme to which students can apply. There is also the option to transfer to one of the research branches of the Statistics and Statistics (Financial Statistics) programmes.

These programmes aim to provide students with intensive training in statistics – particularly in the areas applicable to their chosen programme – and prepare them for further research in statistics or careers in business as professional statisticians or risk analysts depending on their programme of study.



By the end of the programme students should be able to show:

- Knowledge and understanding of advanced topics in statistics.
- Advanced, critical understanding of the main theories and methods within their chosen statistical specialisms
- Appreciation of current areas of research in chosen specialisms
- The ability to work independently, in planning and presenting of succinct, logical arguments and precise statistical analysis
- An advanced understanding of the strengths and weaknesses of a range of quantitative techniques for empirical research
- IT for general and academic purposes
- Research-report writing
- Oral presentation of research
- Competence in quantitative techniques to an appropriate level
- The ability to analyse and interpret data





Assessment process

This section outlines the Department's marking procedure and explains why it is appropriate, as well as how the reliability and robustness of marking is assured and how this links with student progress.

FORMATIVE ASSESSMENT:

Undergraduate

Weekly formative homework exists for most courses. This is marked and returned the following week and discussed in class groups with teachers. For some courses there are termly assignments to be completed. Formative homework is generally marked by the GTAs and Guest Teachers who teach the course. Markers will provide individual feedback in the form of a grade (“very good”, “good”, “satisfactory”, or “poor”) and brief comments and qualitative feedback. Markers also look to identify common problems across the homework and address these in the next class where appropriate.

GTAs and Guest Teachers on our larger client courses ST102 and ST107 are supported by a Course Tutor and Teaching Coordinator, who provide guidance on assessment marking. Teachers also attend meetings with the Course Tutor at the beginning and end of the academic year to discuss teaching and assessment and are given a *Teaching Essentials* handbook which outlines how they should mark and provide feedback.

Taught Postgraduate

For most courses students are required to complete weekly exercises, which are marked and returned with feedback. Some courses also have termly assignments to be completed. In the case of **ST436 *Financial Statistics*** students are also presented with two case studies. Each takes the form of an extended piece of individual coursework involving predictive modelling of a dataset and are marked and returned to the student. These case studies provide students with experience of analysing financial time series data in practice.

SUMMATIVE ASSESSMENT:

Undergraduate

The majority of summative assessment is based on exams in the main summer examination period with some Michaelmas Term half-unit exams taking place in week 0 of Lent term. There is also a week 0 Lent Term exam for **ST102, *Elementary Statistical Theory***, which provides the course lecturer and class teachers with the opportunity to assess performance and advise students in order to help move their learning forwards for the rest of the year.

A small number of courses have an element of assessed coursework.

In the case of **ST327 Market Research: An Integrated Approach** students are required to present a group case study. In the Lent term ST327 students work in groups to deliver a 20-minute market research pitch relating to a real-world company of their choice. The exercise helps to foster communication and teamwork skills as diverse students must work effectively as a group to complete the task. An individual piece of coursework follows upon delivery of the presentation. Both the presentation and coursework are summative forms of assessment.

ST312 Applied Statistics Project is assessed entirely by coursework and oral presentation. Students will produce a project involving a critical investigation and collation of statistical data on a topic of their own interest.

The class of degree attained is based on the assessment of a student's work over all three years, with the emphasis on marks gained in the second and third years.



Taught Postgraduate

The majority of summative assessment is based on exams in the main summer examination period. A number of other half-unit courses will also run week 0 Lent Term examinations.

For students following the research branch of either the MSc in Statistics or MSc in Statistics (Financial Statistics), there is a dissertation due at the end of August. Students are provided with information about the process early in Michaelmas Term and are required to find a supervisor and agree their research proposal with their supervisor by Week 8. The

proposal must then be approved by the appropriate Programme Director.

Students must have an initial meeting with their supervisor towards the end of Michaelmas Term, following approval of their topic. They are then encouraged to have regular meetings with their project supervisor during Lent term (approximately five meetings). During Michaelmas and Lent terms, students clarify the aims of their project, write a detailed plan of work, and gather all of the necessary resources (data; software; literature) they will need to complete their project successfully over the summer. Formal supervision ends two weeks after the end of the summer term.

Academics who take on supervision of MSc projects agree to make at least five hours contact time available (one hour, fortnightly). Supervisors who make extended trips abroad are always available via email or telephone (this may include Skype, where feasible).

Assessed projects and dissertations are entered on to plagiarism software programme, TurnitinUK and results made available to the course lecturer (projects) or supervisor (dissertations).





General Comments

GTAs and Guest Teachers attend meetings at the beginning and end of the academic year, which are run by the department and attended by the ST102/ST107 course lecturer and the part-time teaching coordinator. They receive the departmental *Teaching Essentials* handbook, which provides detailed, specific information for teachers in statistics. There is an additional meeting for all GTAs involved in associate examining for ST102 and ST107, which is led by the course lecturer. GTA/GTs are emailed information on TLC-run development events and encouraged to take up courses such as the PGCertHE at LSE.

All summatively assessed work is marked by a principle marker – normally a teacher on the course who marks the scripts. Then a 2nd marker will check the scripts or, in the case of larger courses, a sample of scripts for consistency. For ST102 and ST107 there is a team of markers (see below). Scripts are split among markers by question to ensure consistent marking (i.e. each marker marks the same question across all scripts).

The course lecturer (the 2nd marker) checks a minimum of 15% of scripts in detail, in addition to any scripts at the pass/fail border. The Department also employs script 'checkers' to go through every script on ST102 and ST107 to ensure that every page has been fully seen and marked.



Additional note on ST102 and ST107

Part-time teachers are used to mark ST102 and ST107 examination scripts. They attend an examination meeting in the Summer term to agree how the marking should be done.

Markers each have set questions that they mark. The lecturer also provides support and guidance throughout the marking process. GTAs are also employed to mark some assessed coursework on larger courses, for which they are paid additionally to their standard teaching contract.

GTAs will meet with the course lecturer to discuss what the work entails and are provided with written guidance and a marking scheme. Teachers can contact the Part time Teaching Coordinator at any time for guidance and advice. The coordinator is responsible for assessing teaching survey results and suggesting areas for development and progress.

The External Examiner reviews all marksheets, checks a sample of scripts for each paper and discusses results with the 1st examiner responsible for the course, taking into account assessment criteria and learning outcomes for the course.





Feedback approach

This section explains the link between assessment and feedback and between how feedback is given on formative and summative assessments, as well as what feedback standards/practice students can expect.

Formative and summative homework

Formative assessment in courses largely consists of weekly homework assignments, which are marked and graded by the class teacher before being returned and discussed in the next class. Students therefore receive both written and oral feedback on all their submitted work and can discuss their work further with class teachers and lecturers in their office hours. For many courses, solutions to exercises are also available on Moodle so students can refer to these in class when the teacher explains them in detail. The lecturer or class teacher provides general feedback by picking up on common errors and misunderstandings in the homework and going over these in detail in class. This feedback helps towards students' ability to learn for summative assessment as well as future weekly formative homework. Generally, there will be an upward trend in the grades a student receives because of this feedback. Some courses require students to give presentations in class. The lecturer

meets with students early on in their preparation and again a few days before their presentation. Feedback is given immediately after the presentation.

Summative assessment is primarily by examination in the summer term for which students do not receive specific feedback. The exception to this is ST102. Feedback is provided in the form of an examiner's commentary which is available to students shortly after official results are released. The commentary provides solutions and collective feedback on what candidates did well, as well as common mistakes.

A number of courses do have a coursework element, some with a presentation included. The lecturer provides support and advice during the preparatory stages of the group case studies and students are generally encouraged to support each other by asking and answering questions via Moodle. They are also encouraged to make use of advice and feedback hours to ask questions about their coursework. Qualitative feedback, as well as a grade, is given

to individuals or a group (in the case of a group project/presentation).

For the MSc Statistics, including Financial Statistics (research), dissertation students will receive feedback from their supervisor throughout the project. This will usually take the form of verbal feedback during meetings and written feedback on drafts. After marking, students receive the examiner's report which will include comments on how the work might have been improved. More detailed comments are provided to students who have to resubmit the dissertation. These students also have the opportunity to discuss feedback with their supervisor.



Advice and Feedback hours (sometimes known as Office Hours)

1st year undergraduates

The Course Tutor for ST102 and ST107 is academic advisor to most 1st year students. He uses end of term reports on LSE For You (LfY) to communicate his thoughts on performance in formative work. Students are welcome to book an appointment via LSE For You to discuss their academic performance at any time.

2nd and 3rd year undergraduates

Students are required to meet with their academic advisor at least once per term and the Undergraduate Administrator will arrange meetings at the start of term. Those who do not attend are contacted and encouraged to make an appointment. Students who have not been attending their classes or who have low homework marks will be asked to make an extra appointment with their academic advisor. Discussions in Michaelmas term can



reflect on the student's performance the previous year although this is not a department requirement. Students are not required to make an appointment but can attend an advice and feedback hour on a drop-in basis. There is no limit on their appointment time although this will depend on demand.

MSc students

Students meet with the Programme Director at the start of the year to discuss course choices. They are free to meet with the programme director at any point throughout the year as well as discuss progress with individual course lecturers during their advice and feedback hours.



Communication strategy


The Department shows here how it will communicate this strategy to its students and to other departments.

- The Departmental Assessment Strategy will be made available to students via the department's website, relevant Moodle pages and email. The Department will seek feedback from students in SSLCs (Staff and Student Liaison Committee meetings) to ensure that the document is accessible and current.
- All taught students are sent a **Frequently Asked Questions** document, written by the programme administrator, which covers questions about examinations including: how to receive feedback on exams, how to find out results and what students should do if they failed an exam.
- The student handbooks also contain information on assessment criteria; the difference between formative and summative assessment; policy on late submission; requests for deadline extensions; plagiarism and a separate section on feedback. Handbooks are given to the students and staff and published on the website.
- Lecturers inform students of course specific assessment criteria and notify them of deadlines.
- The Undergraduate and MSc Administrators will also remind students of upcoming coursework deadlines via weekly newsletters.
- Communication is via: email; skype; individual meetings; face to face; Moodle; Facebook and departmental notice boards.



Have Your Say



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