LSE Department of Statistics

TEACHING ESSENTIALS

Delivering Engaging Classes

2016/17

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Welcome

I would like to welcome you warmly to the Department of Statistics and wish you a productive and enjoyable academic year.

As teaching assistants you have a very valuable role in the department. The School aims to provide all students with high quality teaching and attaches great importance to the provision of teaching in all its forms, including the feedback given to all students. The teaching you undertake is very important to us and we would like to make sure that you also get the most out of your employment with us. Therefore I urge you to attend any teacher training offered by the Teaching and Learning Centre (TLC) in the School. The LSE Postgraduate Certificate in Higher Education is a valuable qualification offered by TLC that will help you to improve your teaching and to strengthen your CV for teaching-related jobs in the future.

Teaching Essentials has been compiled by previous and current teaching assistants to help you understand better the teaching structure at LSE, your role within it and students' expectations, in terms of teaching, assessment and feedback. Please do read it and make good use of it. We expect you to be an active member of the department and share with us any of your concerns and experiences.

I look forward to working and interacting with you.

Professor Pauline Barrieu, Head of Department

Welcome to the Department of Statistics!

As Graduate Teaching Assistant Coordinator one of my roles is to support and monitor class teaching in the department.

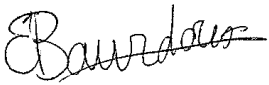
Your role is a hugely important one as you will be helping students understand material which they are likely to find challenging. Our service teaching reaches most of the departments in the School, and this diversity of students makes our teaching interesting, but also challenging. Your role as class teacher is to teach the material in a sound statistical way, to encourage participation and interaction in the class, and to provide guidance through feedback on homework. There is no unique style of high quality teaching.

Some of our class teachers have been with us for a long time and have built up a wealth of experience. I am sure they will be happy to assist you and give advice if you have questions regarding your own class teaching. When I first started lecturing I found it useful to recall some of my experiences as a student of professors who inspired me and to consider what I could incorporate in my own teaching.

I hope you will find your role as Graduate Teaching Assistant a rewarding one which will allow you to develop new skills.

Feel free to get in touch with me if you have any questions or suggestions on how we could improve anything related to the teaching in the Statistics Department.

Kind regards



Dr Erik Baurdoux
GTA Coordinator for the Department of Statistics

Class Preparation

Prepare for classes well in advance, even if you are confident with the material.

ESSENTIALS

1. Familiarise yourself with course materials

✔ Is there any information you need to revise before you can teach?

2. Try to anticipate questions your students may ask

Can you present technical concepts accurately?

✔ Try to use notation consistent with the lectures.

Can you give intuitive explanations of technical ideas?

✔ Students really appreciate this!

Can you provide guidance on tackling exam questions based on the material you teach?

3. Plan your next class

Are there particular topics you want to cover at the beginning or at the end of your class?

- ✔ For instance, you may plan to present a useful theorem or a summary of the "big picture". What would be particularly helpful for your students?

Do you need to be selective about the material you present?

- ✔ Use the previous week's homework submissions (if available) to gauge what areas students found most difficult.
- ✔ You may also simply ask students which topics they wish to prioritise at the start of your class.

Do you think you may run out of material to present?

- ✔ This may be the case if your students are already comfortable with the material for a given week. If so, prepare additional items – past exams are always a great resource.

Are there any class participation activities for students that may be useful?

- ✔ You may ask students questions or leave time for them to ask questions; you may get them into pairs/ small-groups to solve problems or ask them to answer questions on the board. Such activities are very helpful to increase class participation. However, budget carefully for the amount of time they will deduct from your teaching.

Are there any handouts you want to prepare/print in advance? Will you need attendance lists, whiteboard markers/erasers or any projection materials?

- ✔ Don't leave these to the last minute!

4. Balance your time between teaching and other commitments

Prepare, but also be careful not to "over-prepare".

- ✔ Be mindful of your other responsibilities, particularly your own studies and research. Teaching can be stressful at first. Prepare as much as you need to, but also try to limit the number of hours/days you assign to this role each week.

If you find yourself getting overwhelmed, feel free to speak informally with the GTA coordinator, the Department Manager, or just any other GTA you feel comfortable talking to.

- ✔ A list of helpful contacts is provided at the end of this document.
- ✔ Remember: it is quite likely that any questions you have or difficulties you face have already been encountered in the past by other members of the Department. We are happy to help!

5. A tip for your first class

Visit your classroom at least one day in advance of your first session.

- ✔ Find out where your class is, and learn how to operate any electronics (if necessary).

Delivering a Class

Develop your own natural style of teaching. Nevertheless, try to incorporate these best-practice suggestions wherever possible.

ESSENTIALS

1. Be mindful of your delivery

Can everyone see and hear you clearly?

- ✔ Do not speak too softly or too quickly. In particular, be aware that some of your students may be non-native speakers of English.

Can everyone see the whiteboard and/or your projected materials clearly?

- ✔ Go to the back and/or the corners of the room and satisfy yourself that all students have adequate visibility. Check that the lighting is adjusted suitably.

Ensure that you teach in English only.

- ✔ To ensure fairness for all members of your class, please stick to English, even if some students ask you questions in another language.

Teach for the full session.

- ✔ Begin class at 5 minutes past the hour and end it 5 minutes before the next hour.

2. Develop an effective teaching relationship with your students

Make eye contact with all students (not just a few) and try to memorise their names.

- ✔ A great way to match names with faces is to browse the student photographs on your LSE for You register. Or force yourself, at least in the first few sessions, to take attendance with minimal help from the students!

Be a teacher, not a scribe! Do not simply reproduce equations on the whiteboard.

- ✔ Ask yourself how you can add value for your students over and above the materials they already have access to. For instance, can you explain things better, or in different ways? Can you inspire interest in the topic? Can you resolve confusion? Ensure that your students get the full benefit of your pedagogical skills! Think back to how you would like to have been taught the subject. A pro-active and positive approach to teaching will be very rewarding for both you and your students.

3. Start with a lesson-plan, and end with a summary

Share your plan for your class with your students.

- ✔ Take a minute to tell your students your plan for the class. You may wish to create links with material from previous lectures or classes when you do so.

- ✔ Ask your students whether they would prefer to prioritise other topics. If so, see if you have time to accommodate their suggestions.

Summarise the key message(s) of the class.

- ✔ It may be helpful to summarise the main take-away point(s) from your class. You may also want to restate how the material you have just covered fits in with the 'big picture' for the course.

4. Make full use of the teaching space

Are you using the whiteboard effectively?

- ✔ Write large and legibly. Take particular care if you use cursive handwriting.
- ✔ The bottom of the whiteboard is hard to see for students behind the first few rows. Try to avoid using it.
- ✔ Divide the whiteboard into columns to organise your content; this lets you leave material visible for longer and also facilitates cross-referencing to previous sections.
- ✔ In some rooms, there may be a secondary whiteboard. If so, use it to display key formulas that you can make references to for the whole duration of your session.

Are the tables and chairs laid out effectively?

- ✔ You have the option to move these around to suit your goals for the session.

5. A tip for your first class

Usually, the workload for the first class is much lighter than for the rest. Spend some initial time getting to know your students.

- ✔ Introduce yourself. Tell students about your contact details and your advice and feedback hours.
- ✔ Ask your students their names and encourage them to talk about themselves, their expectations for the course, and/or their future plans.
- ✔ Check if there are questions about the content or administrative procedures for the course.
- ✔ Inform students of your expectations from them and of any (reasonable) rules you may want to impose (eg, regarding tardiness, homework deadlines, and so on).

Managing Your Classes and LSE For You (LfY)

Stay up-to-date with your administrative responsibilities.

ESSENTIALS

1. Complete attendance registers (LSE for You) after every class

This is a strict LSE requirement for all GTAs.

2. Comment on student performance (on LSE for You) at the end of each term

This is another strict LSE requirement for GTAs.

- ✔ Wherever possible, try to make concrete rather than generic statements. Be as objective and factual as you can. Avoid being too judgemental.
- ✔ Positive feedback is helpful since Academic Advisors can read your comments and may rely on them when providing references for students.
- ✔ Suggestions for improvement are also helpful. Since students can read your comments, please ensure that anything you write is appropriate for them to read.
- ✔ In general, it is best to take a supportive rather than critical stance, even if a student is performing below the required level.

3. Use the "class-mailer" option on LSE for You if necessary

You may email students to notify them of (i) room/time changes, and/or (ii) any preparation you want students to do ahead of class.

4. Remind students (as often as necessary) to meet homework submission deadlines

Due dates for homework submissions are left to your discretion.

- ✔ Please make clear to each class group exactly when their respective deadlines are.
- ✔ You may decide to allow students the occasional extension if they are finding it difficult to cope with the coursework or have personal problems that affect their academic performance.
- ✔ If you notice students rarely submitting homework, you could warn them informally that (i) an examination bar may be imposed by their Programme Director, and (ii) you will get in touch with their Academic Advisor if they continue to miss deadlines. If students continue to miss deadlines, let their Academic Advisor know and leave any further action to him/her.

5. Be a good LSE citizen

If you are ill and cannot teach a particular class, inform Timetables as soon as you can.

- ✔ Also tell the Department Manager and the Course Lecturer as a matter of courtesy.

End your class on time out of consideration for your students and for next class teacher scheduled to use the room. Leave your classroom tidy. Clean the whiteboard, log out of the computer, return furniture to default positions, and take all your materials out with you.

- ✔ If you find that another class teacher repeatedly overruns his/her class time, and/or leaves your room in an unacceptable state prior to the start of your class, you may drop Timetables an email informing them of your concerns.

Special Feature: ST102 (Elementary Statistical Theory)

ST102 is the department's big service-level course with the largest number of classes – typically 40 groups per year for about 550 students. The course is compulsory for many first-year undergraduates registered for a range of degree programmes, many outside of Statistics, for example BSc Economics.

- ✔ Most GTAs in the department will teach ST102 at some point.
- ✔ All ST102 students will have a background in Maths, although some may be new to Statistics.
- ✔ Students are allocated to class groups on the basis of their degree programme.
- ✔ For example the actuarial scientists and economists will be in separate class groups, so students should be of similar ability.
- ✔ New GTAs are usually given classes with those students that have a quantitative background, while more experienced GTAs tend to teach classes where more academic support is typically required.

ST102 teachers may be required to attend additional meetings with the Course Tutor during the year to ensure class delivery is similar across all class groups

ESSENTIALS

1. The lecturer produces exam commentaries on overall exam performances each year

Emphasise these commentaries to students in class.

- ✔ Exam commentaries provide feedback to students about overall performance, including common errors.
- ✔ Every year many students struggle with point estimation and the subsequent use of distribution theory in the statistical inference section. Stress that the discipline is a cumulative one, such that students who master the fundamentals early on will be at a distinct advantage in the second half of the course.

2. The Department recruits GTAs as markers and mark checkers for the Lent and Summer term exams in ST102 (also ST107 Quantitative Methods)

If you are interested in becoming an exam marker or checker let the Course Tutor know.

Teaching Observations and Student Surveys

ESSENTIALS

1. Obtain feedback via Teaching Observations

The department arranges teaching observations (usually during the Michaelmas Term) for all new GTAs. The goal is to support you through your first few weeks of teaching at LSE.

- ✔ It involves a member of the Department "sitting in" on one of your classes (after making a prior arrangement with you to do so).
- ✔ The aim is to provide you with constructive feedback afterwards on aspects of your teaching style. You may use the opportunity to ask any questions you have or to reflect on your own experiences. Most new GTAs enjoy the experience a great deal.
- ✔ Where necessary, a follow-up teaching observation may be arranged.

The Department is also occasionally able to arrange teaching observations by the Teaching and Learning Centre, who can provide broader advice on teaching approaches and styles.

2. Obtain feedback via Class Surveys

GTAs are required to hand out surveys to students during class (usually in Week 8 or 9).

- ✔ For each of your class groups, you will choose a volunteer student to collect, tally, and seal all the completed forms in an envelope provided.
- ✔ You will leave the room around 15 minutes prior to the end of the class to allow students time to fill out the forms.
- ✔ The volunteer will then deliver all the forms to a drop-off box in the Student Services Centre.

The results will be sent to you once they are processed.

- ✔ You will be able to see how your scores compare with the departmental and school averages. You will also be sent qualitative feedback in the form of detailed comments written by your students.

Results of the student surveys are important because they will be taken into account when allocating future teaching opportunities (and/or teaching awards).

- ✔ You may speak with James Abdey or Erik Baurdoux about your scores if you wish to.

3. New for 2016/17

In Michaelmas Term 2016/17 statistics students will be asked to complete a short survey about class teaching. Results from the survey will be used to help the Department identify areas for improving the student experience.

- ✔ Questions will include: 'Is the teacher punctual?'; 'Are you able to hear and understand the teacher in class?' They will not cover academic material taught in class.

Marking and Feedback

Be diligent with your marking and generous with your feedback.

ESSENTIALS

1. Spend quality time on marking homework

Mark homework before class to identify any common areas of difficulty.

- ✔ Exercises give students the opportunity to demonstrate how much of the lecture material they actually understand. They also serve as a basis for examination preparation. Mark homework before class to identify any common problems, and focus on any such areas during the subsequent class.

Take time to provide detailed qualitative feedback.

- ✔ For example, if you observe a student making the same mistake repeatedly, it can be helpful to write out a more detailed explanation of the correct solution.
- ✔ If you do not have time to write long explanations, you can ask leading questions or provide clues towards the correct solution. These are good ways of pointing students in the right direction.

Try also to identify mistakes in notation.

- ✔ Proper use of mathematical language can be difficult (particularly for first year students). Emphasise the need to use it correctly in order to be awarded full marks in exams.

Acknowledge good work too.

- ✔ Remember not to provide negative comments alone. If you notice exceptionally good work or an increased amount of effort, say so!

2. Encourage students to meet deadlines

Emphasise the importance of submitting work on time.

- ✔ Let students know that it is essential that they stay up-to-date in understanding topics covered in early classes. This is crucial to comprehending more advanced material that they will encounter later on.

- ✔ Moreover, if you receive their work by the appropriate deadlines, you will also have enough time to give good quality feedback to your students.

3. Encourage students to make use of your advice and feedback hours

Remind students that they can get personalised assistance (ie, on a one-to-one basis).

- ✔ In particular, if a student visits you but nobody else does, this essentially means that the student has access to a one-hour one-to-one individually-tailored tutoring session from a fully-qualified LSE Class Teacher! It can be helpful to convey this idea to your students.

Remind students that they are paying for advice and feedback hours.

- ✔ Sometimes, an argument based on financial incentives can also be effective. Make students aware that advice and feedback hours are included as part of what they pay for with their fees.

Emphasise that there is nothing remedial or disciplinary about visiting your scheduled hours.

- ✔ This may help when students are reluctant to visit because they feel that doing so would be a signal that they are struggling with the course material.

If all else fails, ask students to visit the Statistics Support Centre (in LSE LIFE), where they can get personalised assistance from other GTAs in Statistics.

A Word on General Course Students

The General Course is LSE's study year abroad programme where students enrol on a total of four courses. Module options may be drawn from various departments across the School, provided students meet the course prerequisites.

ESSENTIALS

If you teach General Course students, they will be identifiable from your class registers (LSE for You). Although these students will sit the final exam, their overall grade is also determined from their efforts in class.

The General Course office will email you to request a grade (on a letter basis, eg, A-/B/C+) on LSE for You for each General Course student you teach. Your decision about the grade should take into account the frequency of homework submissions and level of participation in class, that is, quality rather than volume of questions asked!

Moodle (Modular Object-Oriented Dynamic Learning Environment)

ESSENTIALS

Moodle is used extensively across LSE as an online platform for a range of purposes:

- ✔ Repository of course materials
- ✔ Providing links to recorded lectures (where applicable)
- ✔ Displaying administrative notices
- ✔ Course discussion (Q&A) forum
- ✔ Electronic submission of assignments.

Course lecturers are responsible for editing and updating the content of the course Moodle page.

GTAs are given teacher-level access which enables them to view all uploaded material, including documents which are "hidden" from students' view such as upcoming exercises and their solutions.

Introduce students to Moodle in your first class and make sure everyone has enrolled in it.

Remind them to visit the site on a regular basis to access solutions to exercises.

Plagiarism

Identify and prevent plagiarism. It is not permitted at LSE.

ESSENTIALS

1. Keep a watch for plagiarism

Students may copy from each other.

- ✔ When you receive two submissions with the same reasoning, comments and mistakes, it is possible that their authors worked together. You need not discourage group work per se (as it can be very helpful); however, do emphasise that students are ultimately responsible for submitting their own solutions to exercises.

Students may copy from solutions handed out in the previous year.

- ✔ You may receive submissions which closely resemble solutions given to you by the lecturer. Be watchful when students choose not to answer questions that are new for a given year. Also be wary when students make errors that may have arisen because the lecturer has changed some of the details of a question for the current year.

2. Let the offending student know that you are aware of a possible case of plagiarism

If you suspect plagiarism, do not let it go unchecked; but be discreet (at least initially).

- ✔ It is not advisable to accuse or embarrass students directly. After all, your suspicions may be wrong. However, do let the offending student know that you have noticed a potential problem.

- ✔ You may wish to ask the student whether he/she has been relying on past solutions or been working closely with another student. Do so discreetly within the homework submission itself, or perhaps via email, or face-to-face.

If the problem persists, contact the Course Lecturer and student's Academic Advisor.

3. Emphasise to your class that plagiarism is not permitted at LSE

Advise students that plagiarism could have a detrimental impact on their academic progress.

- ✔ Students come from a variety of different cultures, some of which have different approaches to shared learning and working together. However, at LSE, plagiarism is strictly prohibited.

Advise students to read LSE's "Regulations on assessment offences: plagiarism".

- ✔ You may wish to recommend to your class that this document can be found in the LSE Calendar (available online).

Emphasise the futility of plagiarism.

- ✔ Remind students that homework is a formative type of assessment; it does not count towards the final grades. Moreover, students can only benefit from appropriate feedback if they submit their own original work. Either way, there appears to be no value in attempting to plagiarise.

LSE LIFE

LSE LIFE is an educational initiative designed to develop student learning and experience in ways that complement formal taught provision.

As the new Centre for academic, personal and professional development for undergraduate and taught master's students, LSE LIFE integrates for the first time the many development opportunities offered by different LSE departments and services and brings together a range of one to one, workshop and large group learning events.

LSE LIFE opens in September 2016 and is housed in bespoke space on the ground floor of the Library. It has three core offers:

ESSENTIALS

1. An institution-wide programme of academic, personal and professional development opportunities for taught students

E.g. Lectures and workshops on core academic skills, such as studying at LSE, writing essays, reading effectively and thinking critically; events on making the most of LSE and life after graduation, such as volunteering opportunities and careers fairs.

2. An advisory service for students

E.g. Drop in service for on the spot guidance with study related tasks; bookable consultations, for small group or one to one advice; reflective tools to raise awareness of learning and study habits.

3. A space for departmental collaboration on student learning opportunities

Eg, Discipline-specific academic skills workshops; case study simulations; mini-conference events; writing retreats.

As a GTA you may want to:

- ✔ Refer students to LSE LIFE for support with their studies.
- ✔ Suggest or design a learning activity for your students to be delivered in LSE LIFE.
- ✔ Use LSE LIFE space to meet with students during your allocated office hours (please contact us if you would like to do this).

For more information about LSE LIFE, see **lse.ac.uk/lselife** or email **lselife@lse.ac.uk**

LSE Language Centre

ESSENTIALS

The LSE Language Centre offers a tailor-made course for GTAs and Teaching Fellows called English for Teaching Purposes (ETP, LN998). The course runs in Michaelmas and Lent Terms and focuses on:

- ✔ Pronunciation: accuracy, stress timing and intonation
- ✔ Voice: pace, pausing, projection and volume
- ✔ Classroom language: moving between lesson stages; asking and answering questions; developing thinking, discussion and reflection
- ✔ Language for assessment and feedback
- ✔ Language for office hours and emails

Classes are scheduled for one hour, each week and include time for microteaching and presentation practice. One-to-one teacher development is also offered alongside these classes.

If you think this support is for you, please feel free to contact Alison Standring, Language Coordinator (EAP) **A.Standring@lse.ac.uk**

For more information about LSE LIFE, see l**se.ac.uk/lselife** or email **lselife@lse.ac.uk**

Training and Development

LSE's Teaching and Learning Centre (TLC) supports teaching and learning across the School. This includes the provision of various training programmes, resources, funding opportunities and a series of events across the year including Academic Development Programme workshops and the annual Teaching Symposium.

The 2016/17 Academic Development Programme includes these two sessions that may be of particular interest to our GTAs:

Building student learning through effective feedback. 24 October 2016.

Providing students with effective feedback is one of the key ways academics can contribute to their learning. This session will discuss best practice in this area, including the role learning technologies can play; include opportunities for attendees to share their own practice; and allow participants to reflect on their feedback skills through a practical exercise.

Encouraging student contributions in small group teaching. 8 November 2016.

When students speak in seminars and classes, academics can assess their progress, and students develop their understanding and their retention of concepts. But this invaluable activity is one of the hardest to control or predict. Can particular teaching practices promote useful student contributions? What expectations and understandings do students have? Participants will be able to evaluate some practical approaches, includes scholarly research in the area, and is an opportunity for participants to share their own practice. Any academics involved in small group teaching are welcome to attend.

Find out more and book spaces at lse.ac.uk/tlc/events

All new GTAs are required to attend a series of workshops, collectively named Being a GTA at LSE, including one dedicated to marking which is run jointly by the departments of Mathematics and Statistics. For 2016-17 the workshop takes place on 30th September. If you would like to know more please email **tlc@lse.ac.uk**

In addition, for those who are keen to gain formal teaching accreditation, TLC also runs the Postgraduate Certificate in Higher Education (PGCertHE). For those seeking a career in academia, the PGCertHE is a typical requirement for many tenured positions within UK higher education institutions. The Certificate is assessed by the submission of a portfolio comprising coursework which covers various aspects of teaching.

Further information:

LSE past papers (all courses):

https://library-2.lse.ac.uk/protected-exam/index.html

Teaching and Learning Centre opportunities and support for GTAs

GTAs page on Teaching and Learning Centre website (includes link to Handbook for GTAs): lse.ac.uk/tlc/GTAs

Postgraduate Certificate in Higher Education: lse.ac.uk/tlc/PGCertHE

Academic Development Programme (workshops and other events): lse.ac.uk/tlc/ADP

Teaching and Learning Centre opportunities and support for students

lse.ac.uk/TLC

The School seeks to ensure that people are treated equitably, regardless of age, disability, race, nationality, ethnic or national origin, gender, religion, sexual orientation or personal circumstances.

Freedom of thought and expression is essential to the pursuit, advancement and dissemination of knowledge. LSE seeks to ensure that intellectual freedom and freedom of expression within the law is secured for all our members and those we invite to the School.

Acknowledgements:

Design: LSE Design Unit: **lse.ac.uk/designUnit**
Ragvir Sabharwal, Department of Statistics

Notes

We are always looking for ways to improve our Teaching Essentials: Delivering Engaging Classes handbook and welcome feedback. You can let us know your thoughts and comments by emailing or speaking with the people listed below. You can also provide feedback in confidence by using the anonymous online feedback form: **https://lsesu.typeform.com/to/W5Z7bx** The Department aims to respond to feedback within two weeks.

Contact details:
Dr James Abdey
Course Tutor (for queries about ST102 and ST107)
email: j.s.abdey@lse.ac.uk

Dr Erik Baurdoux
GTA Coordinator (for queries about teaching opportunities and training)
email: e.j.baurdoux@lse.ac.uk

Imelda Noble
Departmental Manager (for queries about administration: contracts, salary bands, etc.)
email: i.noble@lse.ac.uk

Ragvir Sabharwal
PhD student in Statistics and GTA for the Department of Statistics
(for queries about teaching in the Department and the student/GTA perspective)
email: r.sabharwal2@lse.ac.uk

Have Your Say

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2016