

# LMS/EPSRC Short Instructional Courses Programme

## Notes for Organisers

### Introduction

The LMS/EPSRC programme of Short Instructional Courses started in 1993. Initially the LMS identified topics and organisers and arranged peer reviews of proposals, then applied for funding from EPSRC on an *ad hoc* basis. In June 1999, EPSRC awarded a contract to the LMS to organise and run the instructional course programme covering the whole range of Pure and Applied Mathematics and, subject to EPSRC approval, other areas within the EPSRC Mathematics Programme's remit. Thirteen highly successful courses were run during the initial three-year contract period, which has now been extended for a further three years from January 2003.

The principal aim of the programme is to provide training for postgraduate students in core areas of mathematics. Many UK mathematics departments do not have the expertise to mount a wide variety of such courses and so, in consequence, students are in danger of receiving formal instruction in only a narrow range of topics. The programme of Short Instructional Courses is intended to provide high quality courses for graduate students from around the country in an effective and efficient manner.

The programme will bring other benefits. Many students lead a relatively isolated existence now; although receiving excellent supervision, they may lack the stimulating interaction with other students that only very large graduate schools can provide. It is hoped that participants in Short Courses will derive stimulus from discussion with other students and from the sense of community that the common aim fosters. Normally, a course will cover a topic of benefit to at least 30 UK research students and contain material accessible to those in their first year. The topic for a Short Course might be one of central importance in which the UK is under-represented, in the hope that students will be encouraged to undertake research in the area or incorporate such ideas in their research work.

These notes are intended to provide a prospective organiser with an idea of what is expected from a Short Instructional Course and to give guidance in preparing a proposal (there is also an example of a successful application on the [website](#)). It is understood that some material might require a different course structure; proposals that do not follow this model rigidly, can also be considered. A prospective organiser is encouraged to discuss their plans with the Facilitator for the programme at an early stage.

### Structure

A Short Course should run over five working days, possibly with a mid-week afternoon off for an excursion. There should be three intensive courses of lectures, each at the rate of one hour per day. The material should be accessible to first year research students and of benefit to all research students; it should be broad enough to attract 30 UK students (numbers will usually be limited to 50). There should not be more than 18 hours of lectures. The lecturers will not usually be all from the same institution.

In addition to the lectures there should be daily tutorial (or trouble-shooting) sessions where the students discuss problems and questions arising from the lectures. Two or more postdoctoral assistants would normally be appointed to run these sessions, as students then feel freer to discuss their difficulties and to ask questions. Exercise sheets, prepared in advance by the lecturers, could be used in these sessions. Special lectures on related (possibly more advanced) material can also be included.

It has been found that students feel very strongly the need for a social event. The form of such an event is left to the organiser but EPSRC/LMS will be happy to support it. Students have also expressed a desire

for printed notes which might be desirable but are strictly optional as are model solutions. A useful addition might well be a reading list sent to students in advance.

## **Finance**

The lecturers, organiser and tutors for a Short Course receive honoraria for their work. A lecturer should normally receive an honorarium of not less than £600 for a five-hour course or £700 for a six-hour course. A scientific organiser, who also deals with local arrangements, should normally receive an honorarium of £700. The rate for tutors will depend on their number and duties and should be agreed between the LMS and the organiser.

Participants should be charged a registration fee of £100, it is assumed that all participants should make a contribution of at least this amount. It is expected that for EPSRC students, the registration fees will be paid by their departments from Doctoral Training Account (DTA) funds. Sufficient funds are available for each Short Course to meet the full subsistence and accommodation costs (but not travel costs) of at least 30 research students at UK universities. Again it is expected that EPSRC students will obtain their travel costs from DTA funds. Non-EPSRC students are also expected to obtain travel costs from their departments, but there are restricted LMS funds available in case of hardship. If it is planned to hold a Short Course in September, then it is important to ensure that new EPSRC grant holders register from the beginning of September, in order to be eligible for EPSRC support. Overseas students are welcome at Short Courses but must pay the full costs of participation; again some LMS funds may be available to assist overseas students by agreement between the LMS and the organiser.

In addition to subsistence costs of the student participants, travel and subsistence costs of the organiser, lecturers and tutors, honoraria, the other main budget item will be hire of a lecture room. Most secretarial work, preparation of posters and other publicity material and mailing will be done at LMS headquarters and will not be a charge on the budget.

## **Proposal**

A proposal should be no more than three A4 pages in length. It should include the following information:

- The general mathematical area of the proposed Course and its importance.
- The aims of the Course, its appropriateness to the Short Course programme and the likely level of demand for the Course.
- The names and affiliations of the lecturers, titles of their courses and brief syllabuses.
- The provision for tutorial support.
- Budget (note: VAT is not applicable to these courses).

## **Timetable and Publicity**

A proposal should normally be made at least one year in advance of the proposed date of the Course. The LMS will obtain referees' reports and a decision on approval of the Course will be reached ten months in advance of the proposed date.

Six months in advance of the Course, the organiser should supply information for a *Newsletter* notice that will appear five and four months in advance. The notice will be prepared by the LMS and will be

used as the basis for a poster that will be circulated to all UK Mathematics Departments, together with Registration Forms, five months in advance. The LMS will prepare the Registration Form, keep records of applications and keep the organiser informed about the number of applicants. All publicity material will be put on the LMS website.

If participation is to be limited, a decision on those who are to attend should be made by the organiser shortly after the closing date for registration, which would be usually about 10 weeks before the date of the Course. Participants selected will be notified by the LMS eight weeks in advance. This mailing should include statements of prerequisites, reading list, timetable and map, master copies to be supplied to the LMS by the organiser.

### **Report**

Organisers of Short Courses are required to submit an academic report and a financial statement not more than three months after the end of the Course. The academic report should specify the aims of the Course and the extent to which these were achieved and include the following information: a copy of the programme including lectures and other academic activities; a list of participants with a breakdown (EPSRC research students, other UK participants, overseas participants); results of a student questionnaire. The student questionnaires are considered quite carefully by both the LMS and EPSRC and various changes have been introduced as a result. It will be prepared by the LMS after consultation with the organiser. The financial statement should include: accommodation, subsistence and travel costs (itemised by person); local administrative costs; any other costs.

### **Submission**

The Facilitator will welcome suggestions for topics for Short Courses and of potential organisers. He will be pleased to discuss possible proposals and budgets with anyone interested and he can be contacted at the London Mathematical Society, De Morgan House, 57-58 Russell Square, London WC1B 4HS, or by email ([a.camina@uea.ac.uk](mailto:a.camina@uea.ac.uk)).

Submissions should be made by mail or email to the Facilitator.