

MTH6110 Communicating and Teaching Mathematics: the Undergraduate Ambassadors Scheme (Semester B 2011)

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The Module

This module provides an opportunity for final year students to gain first hand experience of mathematics education, through a mentoring scheme with mathematics teachers in local schools.

Syllabus

Students will typically begin by observing the teacher's handling of the class and progress from this classroom assistant stage through small teaching tasks to at least one opportunity to undertake whole class teaching, possibly for a short part of a lesson. As Student Ambassadors, they will represent and promote mathematics as a potential university choice.

Students will undertake and evaluate a special project on the basis of discussion with the teacher. This may involve a specific in-class teaching problem or an extra-curricular project such as a lunchtime club or special coaching periods for higher ability pupils. The student will keep a journal of their own progress in working in the classroom environment, and they will be asked to submit a reflective written report on the special project and other relevant aspects of the school placement experience.

This module is being offered in conjunction with the Undergraduate Ambassadors Scheme (<http://www.uas.ac.uk/>).

Student Roles as Ambassadors

During the UAS placement the undergraduate students will be involved in the following broad areas of learning and teaching:

- *Classroom observation and assistance*: Initial contact with the teacher and pupils as a classroom assistant. The Undergraduate Ambassador will watch how the teacher manages the learning environment, the lesson structure and the level their subject is taught to. Practical support will offered to the teacher in the classroom or a lab.
- *Teaching assistance*: The teacher assigns the undergraduate teaching tasks which vary depending on specific needs and the undergraduate's own ability as it develops over the placement. This could include offering problem-solving coaching to a small group of higher ability pupils or taking the last ten minutes of the lesson for the whole class.
- *Extra curricula projects*: The undergraduate may help to run and out of timetable activity such as a club, or special coaching periods for higher ability pupils.
- *Special Projects*: The undergraduate devises a special project on the basis of discussion with the teacher and their own assessment of what will interest the particular pupils they are working with. This aspect of the scheme may include whole class teaching for the student.

School and Module Attendance

Students are required to spend half a day (approximately 4 hours), each week for a semester, working in a local school.

This module does not have formal 'lectures.' It is intended that wherever possible or appropriate that students' own ideas and learning will feed back into the content of their activity as they become more experienced.

In lieu of lectures, this module has a weekly tutorial/workshop meeting. These take place on Wednesdays at 10am in the School of Mathematical Sciences Room 203. They will be used to share students' experiences in the classroom, conduct workshops with local teachers and discuss of various aspects of the module (e.g. projects, presentations, log book entries). The module coordinator will keep you informed as to the time and structure of each week's meeting via email.

Mentor teachers will act as the main source of guidance but, in addition, students will be able to discuss your progress with the module coordinator, members of staff and the SMS outreach team whenever necessary.

Assessment

The final mark for the module will consist of three principal factors, weighted as follows:

Written Reports (at least 60%)

Student log book - consisting of entries made during the module (roughly 2500 words in total; 10-weekly entries and a ~1000-word Summary Statement).

End of module report (between 2000-3000 words). The report is provisionally due together with the log book at start of exam period, Tuesday, May 4.

Oral Presentation (20%)

Presentation on special project and experience. These presentations are to be ten minutes in length with five additional minutes for discussion. Presentations are provisionally scheduled for the last week of term - March 29 - April 1.

Mentor Teacher's Evaluation (20%)

Mentor teacher's end of module report, including assessment of student's planning and delivery of special project.

Where to get assistance

Students encountering difficulties with the module work or your classroom placement, should discuss them with the module organiser and/or their mentor teacher as soon as possible.

Additional assistance with projects, maths education, and maths outreach may be available on request via Laura Thomas (l.f.thomas-at-qmul.ac.uk) or the Outreach Team. Another potential contact is Dr. Vivien Easson, SMS Executive Officer (Teaching & Research) (Phone: 020 7882 5485, Email: V.Easson -at-qmul.ac.uk)