

The MEI Annual Conference. Reading University. July 7 - 9th, 2005

You will find enclosed with this Newsletter the brochure and booking form for this year's conference. Once again there is change and uncertainty in the air as well as seeing the new specification through to the end of its first year with the assessment of all units looming in the year to come.

Much of the content of the conference is devoted to enrichment, but our focus will be varied. There are sessions on the further units in the new specification, the Further Mathematics network and other MEI projects. We have three main speakers and contributions from many people with expertise in associated areas. We have a number of sessions from Douglas Butler, the author of Autograph, Jenny Piggot, who works for NRICH and Doreen Connor, who works with the CensusAtSchool project. Doug French, President Elect of the MA will also lead a plenary session. On a more specific MEI front, we have sessions being led by some of the Principal Examiners responsible for the setting and assessment of the examinations. The enormous variety of choice should encourage you to attend!

Many felt that the reinstatement last year of the Conference Dinner was a positive move and so this appears once again on the programme. This will take place on Friday night; it will be a meal that is rather more formal and substantial than Dinner on Thursday evening and table wine is included in the conference fee. Delegates might like to consider dressing up for the occasion! The evening will be hosted by the Chairman of MEI, Peter Mitchell.

Accommodation will be in Windsor Hall where all accommodation is en-suite and there is a dining room and a bar. Windsor Hall is slightly closer to the Palmer building (where all the sessions are being held) than the Hall we used last year. The Whiteknights Campus is a short distance from the railway station and is easily accessible from the M4.

The Conference is not only an opportunity for teachers to learn more about what MEI is doing and the new specifications, but also to be able to talk to other teachers about teaching and delivery of the MEI specifications. If you are members (i.e. teachers from Centres who have paid their subscription) you are entitled to attend and to vote at the AGM which takes place during the conference when you will have the opportunity to have your say about what MEI is doing and how we see the outworking of our vision into the future.

It is our hope that every centre entering students for MEI examinations will be represented at the Conference by at least one delegate.

The programme brochure and booking form are enclosed with this Newsletter. Please book your places now!

From the Project Leader**Appointments**

The start of 2005 has been a very busy time with MEI involved in a number of national initiatives, particularly the Further Mathematics Network, the national roll-out of what was previously the "Enabling Access to Further Mathematics" project.

We have now appointed four new people to work on this exciting programme. We were delighted at the high quality of the applicants allowing us to make excellent appointments. At the same time we are acutely aware that inevitably some very strong candidates were not appointed, including people who have done excellent work for MEI over the years. To those who were unsuccessful, I would like to say thank you for applying and please don't be too upset that you found yourself up against such a strong field. It is not easy to say "No" to people you value and respect.

Roger Porkess
Project Leader

The Further Mathematics Network

MEI has now made four new appointments to the Further Mathematics Network Central Team. The new members of staff are:

Assistant Programme Leader: Sue De Pomerai
Website resources developer/website manager: Tom Button
Finance Manager: David Griffiths
National Administrator: Janice Richards

Congratulations to them all. We were delighted with the standard of the applicants and believe that MEI has built a very strong and committed team to take this vital initiative forward.

The primary role of these new staff is to work with Charlie Stripp and Richard Lissaman to set up and support the 40 to 50 Further Mathematics Centres that will form the National Further Mathematics Network. The new staff will also strengthen MEI as a whole, contributing to the support and advice we provide for our members.

You can access the presentations from the Further Mathematics Network launch events from www.fmnetwork.info, where you will also find an on-line 'Expression of Interest' form. Please fill out this form if you feel your institution would like to become involved - don't worry if you cannot give detailed answers to all the questions. It is not a competitive process and no commitment is attached to the completion of the form at this stage.

If you are keen to be involved in the Further Mathematics Network, but missed the launch events in London and Manchester, you can still attend a third event at Reading University on April 12. Please see www.mei.org.uk

Revision day at Warwick University

There will be an FP1 Revision Day for students (teachers welcome too!) at University of Warwick on 18th May from 12.00 – 4.00pm. Charlie Stripp and Richard Lissaman will be presenting this session. The cost per head is £15 which includes a buffet lunch and a revision pack.

For further details and to book places please contact Alyson Stibbard . (email: alyson@mei-distance.com .)

Charlie Stripp
MEI Further Mathematics Network Programme Leader and Coordinator of Online Learning
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Practice Papers

The papers for C3 and C4 are now ready. There are four papers for each unit. We are sorry that they have not been ready rather earlier than this, but the enormous amount of time needed to prepare and to check them has taken its toll.

We would welcome notice of any errors found, but trust that in spite of the inevitable mistakes teachers will find them useful in the run up to the examinations. An order form is enclosed.

As with the first set, they are being prepared in pdf as well as Word format and will be offered on disc. For a supplement they can be offered as a hard copy. Teachers are respectfully reminded that this extra cost will only cover the copying, packing and post.

Two papers for Statistics 2 are being prepared but may well not be ready until Easter.

Cost: £20 on disc including postage and packing
£30 for disc and hard copy including postage and packing.

BCME

MEI will be at BCME April 30/31. The new MEI stand will be manned by the Professional Support Officer. He would be delighted to see MEI members there. Please come and say Hallo! You can also see the resources advertised in this Newsletter

Teaching Advanced Mathematics Project

The 'Teaching Advanced Mathematics' project is now inviting applications for course enrolment in April 2005.

The course runs from April 2005 to September 2006. Over the seventeen months of the course, participants will be supported in their study of six A level modules: the four Core modules and two modules in their chosen strand of applied mathematics. They will be expected to teach a minimum of one hour per week of AS Mathematics (or the FSMQ Additional Mathematics for teachers in 11-16 schools) from September 2005. On line support, school visits and university sessions devoted to pedagogical issues will provide these teachers with a substantial course of continuing professional development. Successful completion of the course leads to postgraduate accreditation. Course fees for 2005-06 are a heavily subsidised £200, which includes three years access to the MEI on-line resources.

The University of Warwick will support twenty teachers from around the country whilst Manchester Metropolitan University will work with teachers from schools and colleges in Greater Manchester. It is hoped that London South Bank University will also offer the course, supporting those teaching in London.

If you have any colleagues with GCSE Mathematics teaching experience who wish to teach A level Mathematics for the first time next year then this course would offer them the guidance, structure and support they may require.

Course details are available on the MEI website www.mei.org.uk For further information please e-mail the co-ordinator: Bernard.Murphy@mei.org.uk.

Bernard Murphy
Teaching Advanced Mathematics Project Coordinator

Summary Sheets

These have now been completed for C3, C4 and NM . They are available in two versions; Version A is with references to the old books and Version B with references to the new book.

Module Summary sheets are intended to be a revision resource for students. They contain the essential points of each topic with references to the text books and suggested questions to try from the books. They also contain further examples.

They are offered as photocopyable masters for £30 per set (which includes postage and packing) with the licence to photocopy within the purchasing centre only.

For a supplement of £6 they can also be provided on disc. They are, however, written in Publisher2003 and so they are only of any use in this format if purchasers can read in this software.

Others, for A2 modules, are in the process of production.

Examination Question Analyses

An Examination Question Analysis is written for an examination paper. It consists of the question, a model solution with notes and the Principal Examiner's report. For many questions all of this is written onto a single page. For some section B questions the question and solution are too long for this and two pages are used; for Section A questions a number of questions appear on one sheet.

They are offered as photocopyable masters with the licence to photocopy within the purchasing centre only. They will also be available on disc.

In the run up to the examination it is thought that these will be helpful as a revision resource, particularly to AS students to understand the questions that have been asked in the paper and the best way to tackle the questions.

They are being written for the new specification examinations that were sat in January 2005 and will be available just after Easter.

Please watch the web-site for availability. The office would appreciate it if centres would not send in orders before they are ready!

Syllabus items

A number of people have asked about whether three particular items are in the AS/A Level syllabus or not: the area between two curves (C2), the area between a curve and the y -axis (C2) and small angle approximations for $\sin \theta$ and $\cos \theta$ (C4). The short answer is "No"; they are not in the examination syllabus.

In the case of the area between two curves, what is now offside is a one-step question that expects the use of

$$\int_a^b (\text{top curve} - \text{bottom curve}) dx$$

It is still quite in order to ask for the area under one of the curves and then, as a later demand, the area between them. Similarly, a question may ask for the area between a curve and the y -axis to be found by the two-step process of finding the area between the curve and the x -axis and then using it to deduce the required area.

All of these items were in the legacy specification but are not now required by the subject core. So we removed them from the new specification as part of a general move to reduce the content overload that had been a feature of mathematics in Curriculum 2000.

However, all three feel like the sort of things that could be put back as part of some future syllabus tweak, either at QCA's instigation or our own (we have no such plans at the moment). The two areas are very easy. You would probably include them in your teaching syllabus anyway, and you might well also teach the small angle approximations to allow a more rigorous treatment of differentiating trigonometrical functions.

When it came to the textbooks, we felt it would be safer not to mark these items as enrichment material. Some students read the enrichment icon as "You don't need to bother with this". So, if these items were marked as enrichment and we then brought them back into the syllabus, the books would be misleading.

This type of error has slipped into C4 where the volume of revolution about the y -axis has been incorrectly marked as enrichment. It is definitely in the syllabus so the enrichment icons on pages 257 and 274 should be deleted,

We hope that comments on these points are helpful. Please feel free to contact us at any time if you have any other queries. Michael and I always try to respond to requests within a day or so, depending on our timetables!

Roger Porkess
Project Leader

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