

Further Mathematics Support Programme



The Black Country Further Mathematics Centre
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Street
Wolverhampton, WV1 1SB
Email: M.J.Parker@wlv.ac.uk
Tel: 01902 321849 or 01902 321847
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The Staffordshire and Shropshire Further Maths Centre
The Kingston Centre, Fairway, Stafford. ST16 3TW
Email: philchaffe@fmnetwork.org.uk

The Coventry, Warwickshire,
Herefordshire and Worcestershire
Further Maths Centre
Maths Institute
University of Warwick
Coventry, CV4 7AL
Email: A.D.Boddison@warwick.ac.uk
Tel: 024 765 28326

16 November 2009

Dear Head of Mathematics/A Level Mathematics Teachers,

Revision Day for AS/A2 Mathematics and Further Mathematics Students

As a registered school with the Further Mathematics Support Programme we invite you to an A-level Core 1 and 3 revision day. The revision day will take place at the University of Warwick on Tuesday 15 December 2009.

The revision day will cover all A-level specifications. Students will have the opportunity to participate in sessions using interactive voting technology, see key examination topics explained, and work individually and collaboratively on examination questions

Registration will start at 9.30 am and we will expect to be finished by 3.00 pm. **The cost of the day will be £20 per student. All Students will receive a revision pack containing revision of key topics, worked examination questions and further examination practice.**

Students should bring a packed lunch, however there will be a free lunch for the staff.

Revision days are a great opportunity for students to spend an entire day on intensive exam preparation. They also provide an excellent CPD opportunity for teachers. They provide a very time-efficient means for teachers to get an overview of a module, from basic content through to addressing tricky aspects of examination questions.

Enclosed is a flyer for the events, parental consent form for you to copy as necessary, these should be given to any student wishing to attend and returned directly to your school. Completed consent forms should be brought by the school to the revision day. **Unfortunately we are unable to accept any student who does not have a completed parental consent form.**

Please complete the attached application form and return it to

Sue Bridge
Further Mathematics Support Programme
Mathematics Institute
University of Warwick
Coventry, CV4 7AL

by post, email to s.bridge@warwick.ac.uk or fax 024 765 24182 . An acknowledgement and full joining instructions will be sent on receipt of your application. The deadline for applications is **Friday 11th December 2009**.

Yours sincerely



Phil Chaffe
West Midlands Area Coordinators

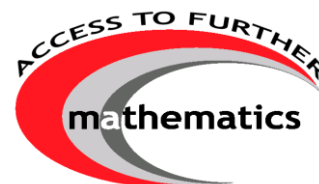


Martyn Parker



Adam Boddison

Further Mathematics Support Programme



Booking Form

West Midlands Further Mathematics Support Programme Revision Day

Please indicate the number of staff and students you wish to bring to the following Revision Day at the University of Warwick

Revision Day	Date of Revision Day	Staff Numbers	Student Numbers	Please indicate the examination specification your students follow (OCR, Edexcel, AQA or MEI)
Core 1	15 December 2009			
Core 3	15 December 2009			

For full details of locations and maps to the revision days please see the accompanying letter and enclosed maps.

Closing Date for applications is Friday 11th December 2009.

Name of school/college: _____

Contact: _____

Email: _____

Address: _____

Telephone: _____

Fax: _____

The charge for the revision day is £20 per student. Please make cheques payable to: "University of Warwick".

Signed: _____ Date: _____

Print Name: _____

Position: _____

Since staff (but not students) are provided with lunch, please indicate any staff special dietary requirements below:

Please complete the attached application form and return it to

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Coventry, CV4 7AL

by post, email to s.bridge@warwick.ac.uk or fax 024 765 24182 .

Further Mathematics Support Programme



Parental Consent Form West Midlands Further Mathematics Support Programme Revision Day

I would/would not* like my son/daughter* to attend Revision Day indicated below to be held on at the University of Warwick from 10.00 am to 3.00 pm.

***Please delete as appropriate**

Revision Day	Date of Revision Day	Please tick those revision days you wish to attend
Core 1	15 December 2009	
Core 3	15 December 2009	

Name.....

Home Address.....

.....

.....

Telephone Number.....

Date of Birth.....

School.....

School Address.....

.....

.....

I confirm that I agree to my son/daughter attending the Revision Day and accept responsibility for his/her travel both to and from the University of Warwick

Signature of parent/guardian: _____

Publicity: Members of the local, regional or national press are occasionally present for short periods of time at University events. All representatives of the press will be strictly supervised by event staff, and no student will be asked to participate in any media interview unless they and their parent or guardian are happy for them to do so. The University may also take photographic and video images of the courses for promotional purposes. No student will be featured against his or her wishes on the day. Please tick the appropriate box(es):

- I give permission for images of my child to be used by the University for the purpose of promoting their activities.
- I give permission for my child to be present in background press footage.
- I give permission for my child to take part in a supervised media interview.

Signature of parent/guardian _____

Please return your completed Parental Consent form directly to your school.

A-level Core 1 and 3 Revision Day

West Midlands Further Mathematics Support Programme

Core 1 and 3 Revision

The West Midlands Further Mathematics Support Programme is hosting a Core 1 and 3 revision day.

The day will cover all four examination specifications.



Location, Date and Time



The revision day will take place at the University of Warwick on Tuesday 15 December 2009.

Registration will begin at 9:30am for a 10am start. The day will end at 3pm.

Content

Students will have the opportunity to:

- Use interactive voting technology to participate in sessions;
- See key examination topics explained in detail;
- Work collaborative and individually on examination questions.

Each student will receive a revision pack containing key topics, worked exam questions and further examination practice.

Worked Example

a) Write the expression $x^2 - 8x - 29$ in the form $(x+a)^2 + b$, where a and b are constants.

b) Hence find the roots of the equation $x^2 - 8x - 29 = 0$. Express the roots in the form $c \pm d\sqrt{5}$, where c and d are constants to be determined.

$a) x^2 - 8x - 29 = (x-4)^2 - 16 - 29$
 $= (x-4)^2 - 45$
So $a = -4$ and $b = -45$.

$b) x^2 - 8x - 29 = 0 \Rightarrow (x-4)^2 - 45 = 0$
 $\Rightarrow (x-4)^2 = 45$
 $\Rightarrow x-4 = \pm\sqrt{45}$
 $\Rightarrow x = 4 \pm \sqrt{45}$
 $\Rightarrow x = 4 \pm \sqrt{5 \times 9} = 4 \pm 3\sqrt{5}$

Take away 16 since the -4 in the bracket will give us an extra 16.

We must complete the question

Don't forget the plus and minus. A very common error through out A-level!

How much does it cost?

The day costs £20 per student. Students are expected to bring their own lunch, or money to purchase food. **We will provide staff with lunch.**

How to apply.

Places are limited so early booking is advised. To book your place please contact

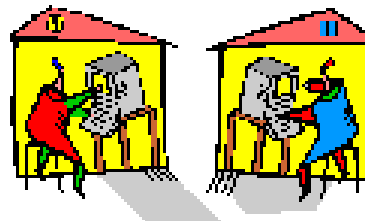
Sue Bridge by post, email to s.bridge@warwick.ac.uk or fax 024 765 24182



Revision Day Programme

The Core 1 programme (subject to change) will cover the following:

10:00	10:50	Algebra
10:50	11:00	Break
11:00	11:50	Co-ordinate Geometry
11:50	12:00	Break
12:00	12:50	Curve Sketching and Indices
12:50	1:30	Lunch
1:30	2:20	Calculus (Non-MEI students)
1:30	2:20	Polynomials (MEI students)
2:25	3:00	Exam Practice



The Core 3 programme (subject to change) will cover the following:

10:00	10:50	Functions
10:50	11:00	Break
11:00	11:50	Algebra
11:50	12:00	Break
12:00	12:50	Exponentials and Logarithms
12:50	1:30	Lunch
1:30	2:20	Differentiation
2:25	3:00	Exam Practice

The Further Maths Support Programme

The Further Mathematics Support Programme (FMSP) is a government-funded initiative. It is managed by MEI, an independent educational charity.

The FMSP has 20 Area Coordinators across the 9 government regions, covering the whole of England. The Area Coordinators are expert in teaching and learning mathematics at this level and experienced at working with mathematics teachers. The Area Coordinators work with schools and colleges to support and promote the study of AS/A level Mathematics and Further Mathematics and to arrange Further Mathematics tuition for students when their schools and colleges cannot provide it themselves.

The West Midland Area Coordinators



Adam Boddison is the West Midlands (South) Area Coordinator of the Further Mathematics Support Programme and is based at the University of Warwick. He has taught mathematics at both primary and secondary level and has a keen interest in how technology can impact on pedagogy, with particular experience in the use of remote learning technologies, such as video conferencing. Adam is qualified as a clinical hypnotherapist and uses NLP techniques and mathematics as a basis to perform psychological illusions with the aim of engaging young people to enjoy mathematics. Adam has also worked as a mathematics consultant with the Black Country Challenge and with Creative Partnerships and is currently teaching mathematics, including Further Mathematics, STEP and AEA, as well as offering enrichment and CPD opportunities to teachers and students across the West Midlands.



Phil Chaffé is the West Midlands (North) Area Coordinator of the Further Mathematics Support Programme and is based at the Kingston Centre in Stafford. He has a wide experience of teaching post 16 level students having covered modules in all disciplines of AS and A2 Mathematics as well as preparing students for STEP papers. He is experienced and knowledgeable about current initiatives in post 16 mathematics and is well placed to discuss the implications for teaching and learning. Phil has worked in Staffordshire for 15 years; 9 of which as head of mathematics at King Edward VI School in Lichfield.



Martyn Parker is the West Midlands (Central) Area Coordinator of the Further Mathematics Support Programme and is based at Wolverhampton University. Before working for the Further Mathematics Support Programme Martyn was a research mathematician at the University of Warwick looking at the mathematics of animal locomotion, why the Earth's magnetic fields keep on switching and how a leech heart works. Martyn was a course leader for NAGTY's summer mathematics courses. He currently teaches mathematics and further mathematics across the Black Country and Birmingham.

Further information on the Further Mathematics Support Programme, including professional development for teacher, is available at our website: <http://www.furthermaths.org.uk/index.php>