



Farmor's School
AN ACADEMY

Year 10/11 Careers Bulletin

A NIGHT WITH STEVE SWANSON NASA ASTRONAUT & ICC COMMANDER

**LICENSED BAR & FOOD FROM 5PM
PHOTOGRAPHS FROM 6.15PM
TALK STARTS AT 7PM**



DECEMBER 3RD

www.ticketsource.co.uk/the-deanery-ce-academy



UNIVERSITY OF
BIRMINGHAM

SCHOOL OF
MATHEMATICS

BIRMINGHAM POPULAR MATHEMATICS LECTURES

Open to all members of public and the University. Particularly suitable for those studying mathematics at A-level. We also welcome advanced GCSE students.

The lectures are free of charge. Please register groups of over 10 attendees.

Arrive from 6:30pm for a 7pm start on the last Wednesday of each month.

Watson Building, Mathematics, University of Birmingham.

23rd October 2019

Dr Panayiota Katsamba

DESIGNING MICROBOTS

From the beginnings of human intellectual activity, scientists and philosophers have been captivated by the beauty hidden in the smallest scales. Engineering at the micro- or nanoscale includes challenges beyond the mere miniaturising process, primarily due to the very physics at



these scales. One needs only to zoom down to micrometer resolution and consider something as simple as swimming of a bacterium to appreciate

the substantially different physics. Drawing inspiration from microorganisms, several artificial microswimmer designs have been proposed. A promising application of these microbots is in non-invasive medicine, for drug delivery to tumours or microsurgery. But how are we to control these to wiggle through tortuous micrometre blood vessels? In this talk, I will give you a guided tour of the anthology of microbots and the fluid mechanics principles that we take into account in their design process.

27th November 2019

Dr Dan Jones

THE COASTLINE OF BRITAIN – THE MATHEMATICS OF MEASURING THE UNMEASURABLE

Nature is wildly complex, but we can take solace in the fact that it is governed by simple rules and



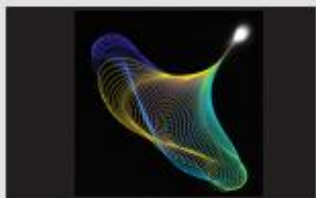
measurable quantities – or is it? The coastline paradox is the rather surprising observation that the perimeter of a land mass, such as Britain,

does not have a well-defined length. In fact, by repeatedly increasing the accuracy of our measurements, the length of the coastline goes up and up with no obvious limiting quantity. So, what is a mathematician to do? Can there really exist a 2D shape with an infinite perimeter and a finite area? In this talk I will show that by using fractal geometry we can hope to tame these mathematical beasts. You've heard of the 4th dimension; we are about to enter the 1.21...th dimension – enjoy the ride!

29th January 2020

Dr Meurig Gallagher A LONG AND WINDING TAIL: HOW MATHS IS HELPING UNLOCK THE SECRETS OF MALE FERTILITY

Around 1 in 6 couples have trouble conceiving, with about half of these cases thought to be due to problems with the man's sperm. To grasp



the causes of male infertility it is essential to understand the microscopic world of sperm, how they move, and how they respond to their

surrounding environment. While we all have an instinctive understanding of how swimming works on the macroscopic (human-size) scale, things on the microscale behave very differently! In this talk we will discuss how we can use maths to understand the fundamentals of swimming in the microscale world, how we can track and analyse sperm as they undertake their long journey to the egg to fertilise, and how this knowledge will allow us to better understand problems in male fertility.

FOR MORE INFORMATION, CONTACT RACHEL BURGESS MATHSOUTREACH@CONTACTS.BHAM.AC.UK WWW.BIRMINGHAM.AC.UK/BPML



Natural History Investigators

**For people aged between 14 and 16 years
Each Saturday from 11th January until 14th March 2020**

Natural History Investigators are able to use the world class natural history collections of Oxford University to help them explore their own questions about nature. We offer ten fun and interactive sessions with real specimens and a chance to get a nationally recognised [CREST award](#)

Are you interested in becoming an investigator? If so, please ask a parent or guardian to fill in the form below and come along to the taster session on Saturday 11th January from 10am until midday.

Applicant's Name:

School:

Year Group:

Parent / Guardian's name:

Contact number:

Email address:

Signature:

Date:

This information should be sent to Sarah Lloyd, sarah.lloyd@oum.ox.ac.uk by 19th December.

Rolls-Royce Apprentice Open Evening 2019 - Bristol

Event Information

DESCRIPTION

Apprentice and School Leaver Open Evening
Wednesday 13th November 2019 – 6:00pm-8:00pm

Location: Rolls-Royce, Horizon Hall - Whittle House Customer Centre Reception, Gate 7 - PO Box 3, Gypsy Patch Lane, Filton, Bristol, BS34 6QA

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Joining Rolls-Royce as an apprentice or school leaver means developing unrivalled expertise. Tackling some huge challenges. And being part of a company that pioneers the power that matters. Our apprentices receive all the training and support they need to go further in their careers.

We are hosting an **Open Evening** to provide students, parents and teachers the opportunity to explore the programmes we have here at Rolls-Royce, including a chance to talk current apprentices, representatives from Apprenticeship Providers, and members of the Development and Recruitment Teams.

Our apprenticeships

Post-GCSE, we offer Advanced Practical/Technical & Engineering/Manufacturing Apprenticeships for people who are keen to get hands experience within various areas of the business. Post A-level we have full degree level apprenticeship programmes across our business, along with training schemes that provide professional qualifications.

This invite is for Year 10-13 students and their guests (max 2. per student). Teachers/Careers Advisors etc are also very welcome.

We look forward to meeting everyone soon,

The Early Career Team

Rolls-Royce

I am delighted to announce [the next series of our Free Get into Medicine events](#) for all of your students interested in a career in Medicine.

Each seminar will focus on key components of the application process. Particular emphasis will be given to:

- Application top tips from Admissions tutors
- How to tackle all 3 different styles of interview, namely MMIs, Traditional and Oxbridge

Students will also have the opportunity to hear from a leading European Medical School, the University of Nicosia Medical School, who will provide a short talk outlining the unique opportunity they are offering students.

Due to popular demand, the series will consist of two evening dates in London, and two in Birmingham. The dates are as follows:

London - hosted at The University of Westminster

- Monday 4th November
- Tuesday 26th November

Birmingham - hosted at the University of Birmingham

- Wednesday 27th November
- Thursday 23rd January

These event historically fill up very fast.

So please can you share with all your students so they can register here to secure their place.

Useful Apprenticeship Websites

<http://www.apprenticeshipguide.co.uk/>

www.notgoingtouni.co.uk

<https://www.gov.uk/apply-apprenticeship>

<https://www.indeed.co.uk/>

<https://www.prospects.ac.uk/jobs-and-work-experience/apprenticeships>

key dates 2019/20

Open Day (10am to 3pm)

Saturday 12th October 2019

Open Evening (5pm to 8pm)

Thursday 6th February 2020

Apprenticeship Information Evening

Tuesday 3rd March 2020

**High Achievers' Academy
Information Evening (6pm to 7.30 pm)**

Wednesday 4th March 2020

For students predicted 7 grade As and above (or equivalent)

Open Evening (5pm to 8pm)

Thursday 25th June 2020

Choices Day (taster lessons)

Thursday 2nd/Friday 3rd July 2020

Cirencester Sixth Form College
Fosse Way Campus, Stroud Road
Cirencester, Gloucestershire, GL7 1XA

tel: 01285 640994

email: StudentJourneyteam@cirencester.ac.uk

More choice at your specialist Sixth Form provider

