



DUBAI COLLEGE
A tradition of quality in education

Teacher of Mathematics

Required for September 2019

Vacancy Information

Exploring functions of the type,

$$f(x) = x^n \cdot e^x$$

Starter: Plot the following functions:

① $f(x) = x \cdot e^x$

② $g(x) = x^2 \cdot e^x$

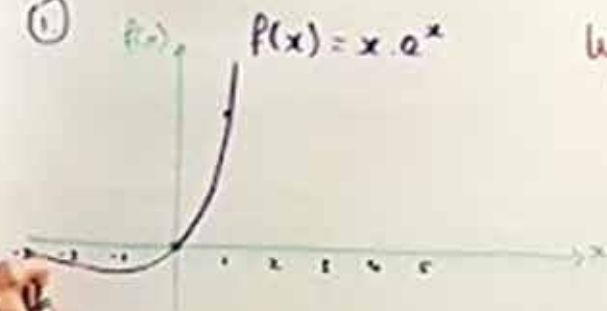
③ $h(x) = x^3 \cdot e^x$

$$f'(x) = x \cdot e^x + e^x = e^x(x+1)$$

At stationary pt $f'(x) = 0$
 $0 = e^x(x+1)$
 $e^x \neq 0$

Do the functions above have stationary points?

① $f(x) = x \cdot e^x$



What happens to $f(x)$ as $x \rightarrow \infty$
 " " " $f(x) \sim x$

$$(x) \cdot e^x$$

$$f'(x) + h(x) \cdot g'(x)$$

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The Post

The College is seeking to appoint a lively, enthusiastic and highly committed Teacher of Mathematics to this thriving and successful department. As a teacher at Dubai College you will be expected to monitor, assess and evaluate the learning which is taking place and then report the findings to students and parents and adapt your teaching accordingly. You will also take responsibility for your own professional development and actively seek out opportunities in order to contribute to your own professional growth with support from the College. Finally you will also recognise that your role extends far beyond the classroom: you will be expected to be a form tutor to an assigned group of students, contribute to the school's PSHE programme through Enrichment Days, tutor time and class assemblies, as well as lead at least one extra-curricular activity per week and participate in one whole-school event in an evening or on a weekend at least once per term.

All applicants must:

have a good honours degree in Mathematics, with appropriate qualifications for teaching the subject to A2 Level

have Qualified Teacher Status and a minimum of two-years teaching experience post qualification

have experience of teaching Mathematics in a British curriculum school

be up to date with current changes in the curriculum and be prepared in the implementation of those changes

In addition the successful candidate will:

be expected to teach Mathematics throughout Key Stages 3 to 5 and be able to stretch the most able students and support all students

be able to demonstrate excellent skills in classroom practice using a wide range of teaching and learning strategies

be an enthusiastic, creative and innovative teacher with a genuine love of the subject, who can motivate and inspire students

be fully aware of Assessment for Learning and include AFL as an integral part of classroom practice

be able to work as a member of a team and to contribute to the further development of the department

be committed to their own professional development, and in particular to the integration of digital skills as a tool for teaching and learning

ensure the delivery of Mathematics conforms to the school health and safety policy

involve themselves fully in the College's extracurricular programme

The Department

The Department follows the English National Curriculum at both GCSE and A Level, using the Edexcel board. Mathematics is taught in ability-based sets from Years 7 to 11 and two groups are currently accelerated, taking their GCSE examination at the end of Year 10. Last year 100% of these students gained grades 8 or 9 and are now undertaking the one year OCR course in Additional Mathematics in Year 11. Mathematics is the most popular A Level subject at the College, currently with ten sets in Year 12 and nine in Year 13.

At all levels the public examination results for Mathematics have been excellent. In 2018, 90.8% of students entered for the GCSE examination achieved a grade 7-9, with 96.7% achieving grades 6-9. At A Level 92.2% of the students entered achieved A*-B grades. Further Mathematics is popular and successful too; last year 74.4% of the 40 students studying Further Maths gained A*-B grades. Currently we have approximately 20 students studying Further Mathematics in each of Year 13 and Year 12.

The department focuses very closely on improving the quality of learning and teaching at all times. The successful candidate will be expected to implement and build upon existing departmental policies and to implement further improvements in the quality of learning and teaching.

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The Mathematics Department has twelve fully equipped teaching rooms and there is full access to the school's computer suites. A range of software is available including Autograph and we also subscribe to mymaths.co.uk. All staff are issued with a Microsoft Surface Pro and the College has a 'bring your own device' policy for students. However, technology will only be used where it can be shown to have a positive impact on teaching and learning and not just for the sake of it.

The UKMT competitions are very popular in the school with entrants exceeding 100 at each level and the majority receiving awards. Students also participate in the annual Senior ISMTF (International Schools Mathematics Teachers Foundation) contests involving some of the best international schools. This year we are travelling again to Vienna with two teams to participate in the Senior ISMTF and have high hopes for the competitors who have been regular attendees of our puzzle club. We have also been founding members of a 'super league' competition between high performing schools in Dubai.

The College

Dubai College was established forty years ago and has a national and international reputation as a world class learning organisation. We are an independent, coeducational, not-for-profit, selective school following an adapted English National Curriculum and our vision is to be "leading British education overseas", underpinned by four pillars of sporting, creative, philanthropic and academic endeavour. This modest ambition is built on a strategy which keeps learning first. As a consequence, we have a generous CPD budget which is used to create and support continuous learning opportunities for staff. The recent appointment of a newly created Deputy Head: Learning and Teaching keeps our core focus at the heart of the school. Supported by Specialist Leaders in Education who mentor and support staff in digital skills, the Harkness method, innovative pedagogies and Dubai College Online, teaching staff are encouraged to undertake action research projects and apply for part-

time Masters degrees in education-related fields. Working collaboratively within departments during INSET days as well as increasingly reaching out across a network of other not-for-profit British schools in Dubai the College is continually striving to create systems for the sharing and creation of knowledge and learning. Whilst we do place an emphasis on academic rigour, in the true spirit of independent schools we champion the importance of the flourishing extra-curricular programme to which all staff contribute. Classes are small and the facilities, resources and teaching environment are very high quality. It is therefore no surprise that the College has developed a very strong regional and international reputation for Drama, Music and Sport. We are a member of HMC, COBIS (Council of British International Schools) and BSME (British Schools of the Middle East).

The British Schools Overseas inspection of the College (conducted in January 2016) classified the school as 'Outstanding' stating 'It represents the very best of British education whilst, at the same time, respecting and celebrating the local culture in Dubai'. The key strengths of the school were identified as the progress and attainment of the students; the teaching, learning and assessment; the curriculum; relationships across the school and sense of community; personal development of the students and leadership across the school. The number of students on roll is currently 951 and comprises students in the 11 to 18 age range with more than 250 in the Sixth Form. The College operates an eight form intake of 160 students in Year 7. Approximately 50% of the students are British, but 48 other nationalities are represented. The GCSE and A Level courses followed are those of one of three examination boards (Edexcel, AQA, and OCR). Examination results are consistently outstanding and in 2018 Dubai College's GCSE performance was comparable to the **5th best UK co-educational independent school** according to The Telegraph league table. Our excellent A Level results mean that up to 31% of Dubai College leavers now go on to study at the top 1% of universities worldwide (according to THE World University Rankings) and we are yet again the top performing school in the United Arab Emirates achieving

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88% A*/A grades at GCSE and 60% A*/A grades at A Level this year.

The College occupies a nineteen-acre site on the coast very close to The Palm Jumeirah at the mid-point between Dubai Marina and the iconic Burj Al Arab. Over the years excellent facilities have been developed and all teaching rooms will soon have generic LCD screens which allow students and staff to project their devices to the class. We have a multi-purpose auditorium which is capable of seating over 900, the Sixth Form centre underwent significant expansion and redevelopment in 2014 and this year we have opened a new flagship English department which serves as a statement of intent for future renovation, as well as a new reception and administration building which will create the space for our regional teaching and learning hub. A new sports pavilion was completed in 2015 and we are fortunate enough to have our grass playing fields and other sports facilities located on site.

Ethos

As a College we are aiming to engineer balance in the lives of students who are academically very able. There is no blueprint for a Dubai College student rather we are aiming for students to discover for themselves who they are and who they want to be. By creating a wealth of opportunities for students to participate in as broad a range of experiences as possible whether they are sporting, creative, philanthropic or academic, we are enabling them to discover their own place within the school community and in time within the world outside. We never lose sight of the fact that our academically gifted students aspire to perform as well as possible in public examinations and we continuously champion the academic. However, the ability to work as a member of a team, to manage setbacks and failure and to recognise personal strengths and weaknesses will be as important in enabling them to live their life with integrity and is consequently a core focus of what we do here. As a result our students leave us as confident individuals with the knowledge, skill set and outlook to succeed at the very best universities and

eventually in their chosen, often very challenging, career paths. When asked what standards we expect of one another as professionals DC staff demonstrate a real sense of vocation, that working at Dubai College is not a job but a lifestyle choice. Teachers believe strongly that they should be able to fulfil their academic responsibilities to their students and must be accountable for the outcomes of every one of their students. The next most important expectation of staff at Dubai College is that they should embrace whole school life and contribute fully to the extra-curricular programme both during and after school hours.

Working at Dubai College is intense; it is not a 9-5 job and for it to continue to feel like a real community staff must be willing to give freely of their time in exchange for working with very able students. Staff believe they should also display excellent professional courtesy to one another and their students: every subject is on the timetable for a reason and no-one should speak out of turn about somebody else's academic discipline; we work in an Islamic country and staff should dress professionally in line with cultural sensitivities and staff should treat one another and their students as they would hope to be treated themselves. Staff also feel that they each have a responsibility to go beyond the baseline: the national curriculum is a jumping off point not an end goal, an exam syllabus is a dot to be joined up to a bigger picture, the working day is the start but not the end of a day's work, an ALPS prediction is a minimum for a student to achieve. As practitioners staff feel they should be looking to develop, to enthuse, to inspire, they should be craftsmen with a passion for their subject and whatever their position in the school they feel they all ought to feel equally responsible for the outcomes of the College. As members of a school which feels more like an extended family than an institution we hope to educate well-mannered citizens who are empowered to fulfil their aspirations. The "not-for-profit" structure of our organisation perfectly embodies our ethos: everything is invested in the school and the students with nothing left over.

While this all sounds ideal it is important to understand,

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however, that Dubai College is not perfect. The post itself is an extremely challenging one and the College is tremendously busy. If you dislike hard work – sacrificing many weekends and evenings for the sake of the students – and are concerned by working with highly able, intellectually demanding students, this post is simply not for you. Equally it must be clearly understood that the College is passing through a significant period of change and we are in a new phase of the College's development cycle. We are updating our learning approaches, facilities, policies, curriculum and IT capability. The successful applicant must both embrace and play their significant part in contributing to this change but without damaging, in any way, the core essential ethos of the school. It should be noted that, although we certainly embrace change, we do not run with every innovation emanating from the UK – we cherry-pick initiatives that suit our selective and highly able student body. However, it should also be noted that we are subject to whatever changes the UAE government chooses to make on an annual basis which can make for a very fast-paced educational landscape.

The College really does have a great feel about it. It already has an exceptionally strong national and international reputation and if you feel you have the potential to build on our reputation as a centre of excellence on the global stage we would very much like to hear from you.

Remuneration

Dubai College offers an excellent remuneration package and the opportunity to work with our dynamic, highly qualified team in very pleasant surroundings with excellent facilities. The package will be discussed at interview.

How to apply

For further details about the College please visit our website: www.dubaicollege.org. You may also wish to follow us on Facebook, Twitter, Flickr and YouTube.

Applications should be sent by email to headassist@dubaicollege.org using the application form available on our website. The deadline for applications is Saturday 24th November 2018 with interviews planned for Monday 3rd to Friday 7th December.

Dubai College is committed to safeguarding and promoting the welfare of young people and operates child protection screening which includes checks with previous employers and Disclosure & Barring checks







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