

PEMBROKE TUTORS | ELITE LONDON TUITION

James

I'm currently in my 4th year of Natural Sciences at the University of Cambridge and I am now pursuing an MSc in Physics. For several years, I've been teaching a variety of subjects at all different levels from 7/8+ through to university admissions.

I am an experienced, enthusiastic and engaging tutor and I relish the reward and satisfaction that comes from enabling students of all ages and abilities to grow their self-confidence and reach their full academic potential.

Education

Sep 2013 – Jun 2017 MSc Christ's College, University Cambridge

Grade: 1st Class (Predicted)

Scores in summer examinations

Year 1: 1st Class (73%) - Maths, Physics, Chemistry, Materials Science

Year 2: 1st Class (72%) - Maths, Physics A, Physics B

Year 3: 2.i (69%) - Experimental and Theoretical Physics

Year 4: 1st Class (Predicted) - Experimental and Theoretical Physics

Sep 2006 – Jun 2013 The Ashcombe School, Dorking

A levels: 4 A*s - Mathematics (99%), Further Mathematics (97%),
Physics (98%), Chemistry (100%)

GCSEs: 8 A*s – Mathematics, English Literature, English Language, Core
Science, Additional Science, History, Geography, Chinese
2 As - French, Art

Tuition History

I have offered tuition services over the last five years, and have significant experience in the following areas:

- i. 7/8+: English (comprehension, reading, handwriting, phonetics), Mathematics, Science, Verbal and Non Verbal reasoning
- ii. 11 / 13+ tuition: Verbal and Non Verbal reasoning, Mathematics, Science, English
- iii. GCSE level: Mathematics, English, Chemistry, Biology, Physics
- iv. A Level : Mathematics, Further Mathematics, Physics, Chemistry
- v. Supporting Oxbridge applications

I think understanding content can only come from enjoying the learning and so I try to build as many analogies and real world examples as possible into my lessons. Each individual has their own way of learning that works best for them and so no two lessons are ever the same. Certainly mathematical and scientific concepts can only be properly understood through tackling problems, but private tuition enables the student to escape the monotony of listed exercises as one can focus instantly on weaker or more challenging areas.

I always make developing my students' self-confidence a top priority as often one meets bright students with a textbook knowledge of concepts, but not enough assurance to attempt unfamiliar and deliberately irregular exam problems. I derive great satisfaction from seeing my students' understanding and enthusiasm for their learning grow over time and so through inspiring them, they inspire me.

Employment History

Aug - Sep 2016 Theoretical Particle Physics Researcher, University of Oxford

Investigated 'Naturalness' by probing Higgs Boson measurements. I also developed Python and shell scripts to perform a scan over all possible supersymmetric (SUSY) particle masses to look for possible dark matter particle candidates.

July - Oct 2015 Researcher, CERN (ATLAS Collaboration), Universität Göttingen, Germany
Conducted an analysis comparing real and Monte-Carlo data for Top Quark Physics
Formulated CERN's first analysis strategy of the ttV trilepton decay channel at 13TeV. Concentrated on big data analysis techniques whilst developing a strong proficiency in C++, Python, and ROOT.

2015-2016 JCR President of Christ's College, Cambridge
Elected leader of the undergraduate student body at Christ's College and so managed all aspects of student life for a body of 500 students with a budget of £55,000. Established a 'College Sports Day' with our sister college, Wadham, Oxford; increased the charitable fundraising of the JCR by over 500 % to over £3000 for 2015; and secured long-term improvements in areas of admissions, welfare and development.

2015-2017 Cambridge Union Society (CUS) Committees
CUS, founded in 1815, is the oldest free speech and debating society in the world and is the largest student-run society in Cambridge. Throughout the time I have been involved, my positions have included Head of Event Management, Speakers' Guest Liaison and Head of Publicity. My roles have involved managing large-scale events with up to 450 attendees as well as hosting and entertaining high-profile guests.

2012-2015 Conservation Leader at the National Trust
Volunteered for more than 250 hours on a diverse range of environmental conservation projects. Led a fundraising project that invited the local community to cut down their own Christmas tree and raised over £1000 for the charity from voluntary contributions at the event.

2011-2013 Technical Director for Stage Coach:
Commissioned to arrange 2 Stage Coach performances, and voluntarily managed 3 sequential school productions, which sold out 1,500 tickets each year. Designed and sequenced original light and sound arrangements.

Achievements

2015 Exhibition for Natural Sciences; Christ's College, Cambridge

2014 Scholarship for Natural Sciences; Christ's College, Cambridge

2013 Award for Best Overall Achievement at A Level, The Ashcombe School

2013 Gold Award (Top 25 in UK), Chemistry Olympiad

2011-2013 3 x Gold Award, Maths Olympiad

2011-2013 Bronze, Silver and Gold Duke of Edinburgh Awards

Interests

In my spare time, I enjoy a variety of sports i am a keen amateur triathlete. I also enjoy travelling and so I have been fortunate to have had the opportunity to tour Europe extensively as well as having spent 10 weeks in China (2014). I have a broad range of interests outside of Physics, especially in the areas of Politics, Philosophy and the development of Artificial Intelligence. I feel that this enables me to contextualise concepts in a wide variety of settings and so I can connect better with my students' own particular interests and passions.

References

Available on request.