

## King's Student Perspectives

## Engineering

Mark, 4th year  
June 2012

### Why did you want to study Engineering at Cambridge?

*Having decided that I wanted to take further the skills I enjoyed learning in the sciences and maths at school, I decided that Engineering was for me as it provides a more practical and real-world approach to learning than perhaps a 'pure' science would.*

*I then chose Cambridge due to its reputation for academic excellence in Engineering, both in the UK and internationally, and of course for the prestige of attending such a world-*

*renowned institution. What also attracted me to the Cambridge Engineering course was the relatively unique course structure, allowing me to study a wide range of engineering subjects in the first two years before choosing to specialise in the final two years.*

### Why did you choose King's?

*Choosing a college to apply to can be a daunting and confusing experience. How on earth can you get an impression of 31 different*

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*institutions, never mind decide on one that's best for you?! But it really needn't be stressful. Everyone I've met has said that they couldn't imagine being at another college. Stereotypes do exist of the 'type' of people from different colleges, however I would take these with a pinch of salt, as each college tends to be large enough to have a diverse range of people from all sorts of backgrounds, this being especially true at King's.*

*It is worth considering the size and location of the college (King's is medium in size and right in the centre) and possibly any facilities that you are particularly interested in, such as sports facilities, art rooms etc.*

*Personally, I chose King's for the simple reason that I knew someone from school who came here a few years before me, and it looks pretty nice!*



*King's Fellows' Garden (students use it too - some even live here in the Garden Hostel accommodation).*

*Although I obviously haven't directly experienced life in another college, I would say that King's is a very open and tolerant place with a strong sense of community within the college walls, perhaps stronger than the impression I get from friends at other colleges. King's does also live up to its reputation as being fairly politically active (and left of centre), however this is something you can easily opt in or out of.*

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## *How did you get on with the application process?*

*As I was applying to Cambridge, I had to apply early on in the academic year (the deadline is 15 October). This was fairly straightforward, however they do ask to see all the A-level module marks that you have achieved to date. If you are predicted to achieve the required A-*

*level grades then you should certainly apply, and they interview most candidates. There seems to be a great deal of mystery surrounding the Cambridge interview, and although I can't speak for other colleges or courses, I can honestly say I don't think my interviewers cared where I came from, what school I went to or how long my list of extracurricular activities was. My interview was fairly relaxed and they were simply trying to see if I had a genuine interest and potential for the subject I was applying for.*

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*Specifically for Engineering, I would recommend gaining some relevant experience outside of A-levels. I personally found the Royal Academy schemes interesting (Headstart, Engineering Education Scheme), and through that I went on to do a Year In Industry between finishing school and starting at Cambridge.*

## *What is the course like?*

*The Cambridge Engineering course is very theoretical in nature, with a greater emphasis on understanding the fundamental concepts than on the practical applications. The course is also fairly mathematically intensive and although further maths A-level is not a requirement, it certainly helps!*

*The quality of the lectures obviously varies between lecturers; however a common theme is the impersonal nature of the lectures themselves. With Engineering being (one of) the largest courses on offer at the university, communication in lectures*

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*is very much one-way, with little room for student input. But this is where the best part of academic life at Cambridge comes in...supervisions.*

*Supervisions in Engineering are additional to the lecture courses and laboratory sessions and tend to be in groups of two to four students with*

*a supervisor. You have approximately one, one hour supervision every two weeks on each topic that you study, and the supervisor will expect you to have attempted an "Example Paper", which is just a problem sheet, prior to the supervision. The supervision will then be structured around the problems you or your group have found difficult. Supervisions tend to be relatively informal and provide an excellent opportunity to go over subject areas that you might not have understood in lectures. In the first two years, supervisions will be held within King's with one of the Fellows or research students in College. In third year, you will have supervisions organised by your subject group area, and in final year you don't have any supervisions at all. I would say that the teaching I have received from the Fellows at King's has been excellent.*

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## *What does your timetable look like?*

*Compared to many subjects at university, Engineering is very structured. In first and second year, you will have lectures or lab sessions in the Engineering department from 9am until*

*1pm Monday to Friday, with the occasional afternoon lab session. Lab sessions are compulsory, with lectures optional. You will then have about 3-5 one hour supervisions per week. In third and fourth year, the timetable is less structured, with more emphasis on project work and self-motivated learning, particularly in the final year.*



*The Engineering department (9 mins' walk up the road from King's). You attend lectures and labs here with Engineering students from all Colleges.*





*Mark was part of the Cambridge University Hockey team which beat Oxford in the 2012 Varsity match.*



## *Is the workload manageable?*

*It's easy to feel like there is always more work to do, but I honestly believe that the more things that you get involved in, the more time you seem to have (to an extent of course!). Cambridge is all about being smart about when and how you work. Supervisions are there to help you understand the problem sheets, so if you're spending more than a few hours on a sheet then it's a better use of your time to wait and ask your supervisor and move on to the next piece of work.*

*Being at King's and Cambridge in general is a fantastic opportunity to get involved in a wide range of sports or extra-curricular activities, and doing so is a great way to make new friends and provide a much needed distraction from work.*

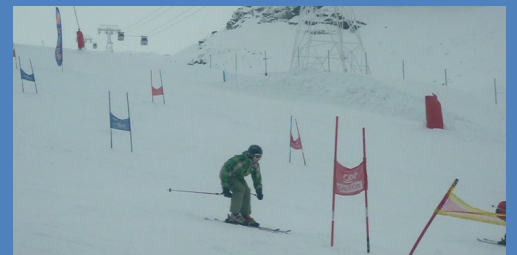
*Personally, I have played for the university Blues Hockey team for all four years of my course (see website at <http://cuhc.co.uk>), as well as playing cricket for King's and going on the annual Varsity ski trips (details at [www.varsitytrip.com](http://www.varsitytrip.com)). Additionally, I was elected to be part of the King's College Student Union (KCSU), which allows you to have a direct input into the workings of*

*College and to help to improve life for King's students.*

*Cambridge is all about being smart about when and how you work.*



*Varsity Ski Trip reps at the freshers' fair (you can also see the University Athletic Club behind)*



*Note from King's Admissions Office: Mark plays hockey at a very high standard but do bear in mind that whilst many King's students get involved in sport and other activities at College or University level, admissions decisions are based strictly on your academic potential. We do not expect applicants to have impressive extra-curricular achievements.*

*When you get to specialise in third year and especially fourth year, the application of the theory you have been learning starts to become clear.*

## *How does the course progress?*

*Engineering at Cambridge comes in two parts. In the first two years are very structured and everyone studies the same things. The content of the first two years is very theoretical and maths intensive with seemingly little scope for practical application, which meant that personally I found the first two years more difficult. However, it's worth persevering, as when you get to specialise in third year and*

*especially fourth year, the application of the theory you have been learning starts to become clear and with the huge selection of modules to choose from you can really tailor your course to areas that you are interested in. Having the background from the first two years allows you to make a more informed choice, which is a real benefit from the Cambridge course structure.*

*By far the most interesting aspect of the Cambridge engineering course is the final year major project. This forms approximately half of your final year grade and you spend the entire year working on it. Most projects will have a real practical application, where you get the chance to see the benefits of the work that you have been doing. My final year project was working with Rolls-Royce to develop a new design process for a new generation of aircraft propulsion engine (Open Rotor), but there is an incredibly diverse range of different projects available, and you can even suggest your own.*

## *What next?*

*My plan is to take a well earned break over the summer and do some travelling before starting the engineering graduate scheme at McLaren in September, which I am really excited about. I do think that I have my experiences at Cambridge to thank for being given this opportunity.*

### **A note to current King's Engineering students**

If you would like to write about your experiences of studying Engineering at King's for our prospective students to read, please email Kristy in the Admissions Office for further details:  
[undergraduate.admissions@kings.cam.ac.uk](mailto:undergraduate.admissions@kings.cam.ac.uk)

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