

WHTC University application subject guides

Dentistry

This guide has been written to help support you in your application to university. It contains the following information relevant to your subject to help you decide where to apply and put together the best application that you possibly can:

- 1. Links to the top courses for this subject in the UK (according to
- 2. Entrance requirements
- 3. Recommended A-levels
- 4. Admissions tests
- 5. Recommended reading
- 6. Interesting MOOCs
- 7. Useful additional resources
- 8. Related courses

1. Course links

Below are links to the top courses for this subject in the UK (according to <u>The Complete University Guide</u>). Click on the links to find information about what the course is like, what you'll learn, and loads of information about things such

as fees and accommodation. However, remember that there are loads of other great universities out there, so check out The Complete University Guide or just google studying your subject at university.

- 1. King's College London (Dentistry BDS)
- 2. University of Birmingham (Dental Surgery BDS)
- 3. Queen Mary University of London
- 4. Newcastle University (Dental Surgery BDS)
- 5. Cardiff University (Dental Surgery BDS)

2. Entrance requirements

Here are the grades that the university suggests you need to get in to that course, and the likely offer that they will give you.

- 1. King's College London: A* A A (Biology or Chemistry are required, in addition to studying one of Biology, Chemistry, Physics, Maths or Psychology)
- 2. Birmingham: A A A (must include Biology and Chemistry)
- 3. Queen Mary: A* A A (must include Biology and Chemistry and a second Science [Physics or Mathematics])
- 4. Newcastle: A A A (must include Biology and Chemistry)
- 5. Cardiff: A A A (must include Biology and Chemistry)

3. Recommended A-levels

Different universities may differ as to what A-levels they ask you for. Some might list one subject as 'essential', while another might list the same subject as just 'helpful', so make sure to check out the course page (under Section 1 of this document, or on the university website) to be sure what your chosen university expects!

Biology and Chemistry are both essential to study Dentistry/Dental Surgery as a University degree course. Some courses do require the study of Physics, Mathematics or Further Maths. In this instance, the study of Mathematics is considered as a Science. A pass in the practical element of these Science A Levels is also required. This makes evident the demand for transferable skills such as manual dexterity, which are utilised in Dentistry.

4. Admissions tests

What admissions tests are you typically required to sit in addition to submitting your application? This also differs from uni to uni, so if your chosen university isn't on this list, make sure you check out the course page so you know exactly what you need to apply.

King's College London: <u>UCAT (University Clinical Aptitude Test)</u>

Birmingham: <u>UCAT (University Clinical Aptitude Test)</u>

Queen Mary: <u>UCAT (University Clinical Aptitude Test)</u>

Newcastle: <u>UCAT (University Clinical Aptitude Test)</u>

Cardiff University: <u>UCAT (University Clinical Aptitude Test)</u>

Further information regarding selection process

King;s King's does not have a threshold UKCAT score in any particular year, but all candidates are still required to take the UCAT examination for this course. The overall UCAT score averaged across the four subtests is given more consideration than the individual subtest scores. The Situational Judgement Test (SJT) is also taken into account when shortlisting.

Birmingham: The scores are used in conjunction with details from the UCAS application forms to select candidates for interview.

Queen Mary: All candidates must score above the third decile or above to be invited in for interview.

Newcastle: The UCAT threshold may differ in each admissions cycle, as it is dependent on the scores achieved by those applicants who apply to our Dental School in the current cycle. Therefore information on what the threshold is is not available to prospective students.

In 2019, the number of applicants was 721 and the UCAT cut-off score was 637.

Cardiff: As part of the admissions process applicants are required to sit the UCAT test and, if they meet the academic and non-academic requirements of the programme, participate in an MMI (Multiple Mini Interview).

5. Recommended reading

Reading some relevant books or articles is a really great way to demonstrate your passion for your chosen subject in your personal statement, and show how you've gone beyond the curriculum. Plus, if you really want to spend three years or more studying this subject at university, it should be enjoyable! Try taking notes and jotting down your thoughts as you're reading so that you can share some of this in your personal statement

General scientific magazines and publications

Nature - www.nature.com

Free to access articles

Nature is a British multidisciplinary scientific journal, first published on 4 November 1869. It is one of the most recognizable scientific journals in the world, and was ranked the world's most cited scientific journal by the Science Edition of the 2018 *Journal Citation Reports* and is ascribed an impact factor of 43.070, making it one of the world's top academic journals.

New Scientist - www.newscientist.com

Free to access articles

New Scientist, first published on 22 November 1956, is a weekly English-language magazine that covers all aspects of science and technology. Based in London, it publishes editions in the UK, the United States, and Australia. Since 1996 it has been available online.

Discover - <u>www.discovermagazine.com</u>

Free to access articles

Discover is an American general audience science magazine launched in October 1980 by Time Inc.



Science - https://www.sciencemag.org

Free to access scientific articles

Science, also widely referred to as Science Magazine, is the peer-reviewed academic journal of the American Association for the Advancement of Science and one of the world's top academic journals.

National Geographic - https://www.nationalgeographic.com

Some free to access scientific articles

National Geographic (formerly the **National Geographic Magazine** and branded also as **NAT GEO**) is the official magazine of the <u>National Geographic Society</u>. It has been published continuously since its first issue in 1888, nine months after the Society itself was founded. It primarily contains articles about science, geography, history, and world culture.

General scientific journals -

Bioessays - https://onlinelibrary.wiley.com/journal/15211878

Some free to access peer-reviewed journals

BioEssays is a monthly peer-reviewed review journal covering molecular and cellular biology. Areas covered include genetics, genomics, epigenetics, evolution, developmental biology, neuroscience, human biology, physiology, systems biology, and plant biology. The journal also publishes commentaries on aspects of science communication, education, policy, and current affairs.

Cell - www.cell.com

Free to access peer-reviewed journals

Cell is a peer-reviewed scientific journal publishing research papers across a broad range of disciplines within the life sciences.

The BMJ - www.bmj.com

Free to access peer-reviewed medical journals

The BMJ is a weekly peer-reviewed medical journal. It is one of the world's oldest general medical journals.

PLOS Medicine - https://journals.plos.org/plosmedicine

Free to access peer-reviewed medical journals

PLOS Medicine is a peer-reviewed weekly medical journal covering the full spectrum of the medical sciences. It began operation on October 19, 2004, as the second journal of the Public Library of Science, a non-profit open access publisher

Recommended books

So You Want to Be a Dentist? What You Must Know if You Want to Succeed in Dentistry by Marcus Neff D

This book will give you a head start on the competition. This book is a must read for the pre-dental student and the dental school student looking to not just be a dentist, but be a successful dentist.

Essential Dental Public Health by Blánaid Daly et al.

This introductory book aims to stimulate the reader's interest and encourage a questioning approach to dental public health issues and their relationship to clinical practice.

The Smile Stealers: The Fine + Foul Art of Dentistry by Richard Barnett

This achingly fascinating book follows the evolution of dentistry throughout the world from the Bronze Age to the present day, featuring captivating, grim illustrations of the tools and techniques of dentistry through the ages. It charts

the changing social attitudes toward the purpose and practice of dentistry from the crude and painful endeavours of early civilizations to the fluoridated water, cosmetic surgery, and heightened expectations of today.

In Stitches by Andrew Youn

Growing up in a small town where diversity was uncommon, Dr Youn, an Asian-American kid with thick glasses and a massive protruding jaw, stuck out from his classmates like a sore thumb.

However, his visit to an oral surgeon to get his jaw reconstructed let to a major breakthrough in his life's calling. Youn went on to become an extremely successful celebrity plastic surgeon, and he explains in this book how he achieved this.

In Stitches lives up to its name, both leaving you in stitches with Youn's sense of humor as well as leaving you contemplating what he had to say.

Hacking Darwin by Jamie Metzl

At the dawn of the genetics revolution, our DNA is becoming as readable, writable, and hackable as our information technology. But as humanity starts retooling our own genetic code, the choices we make today will be the difference between realizing breathtaking advances in human well-being and descending into a dangerous and potentially deadly genetic arms race.

The Selfish Gene by Richard Dawkins

As relevant and influential today as when it was first published, The Selfish Gene has become a classic exposition of evolutionary thought. Professor Dawkins articulates a gene's eye view of evolution - a view giving centre stage to these persistent units of information, and in which organisms can be seen as vehicles for their replication.

The Emperor of All Maladies: A Biology of Cancer by Mukherjee

A historical assessment of cancer addresses both the courageous battles against the complex disease and the misperceptions and hubris that have compromised modern understandings, providing coverage of such topics as ancient-world surgeries and the developments of present-day treatments.

6. Interesting MOOCs

Another great way of learning more about your chosen subject and demonstrating your interest is to take a MOOC, or Massive Open Online Course. These are free courses delivered by universities that you can take online. If the ones below don't take your fancy, try looking at <u>Class Central</u> - they have a huge list of different courses for every subject imaginable, and they're all free!

Edx - https://www.edx.org/learn/biology

Free courses to further your knowledge and understanding of Biology

edX is a massive open online course provider. It hosts online university-level courses in a wide range of disciplines to a worldwide student body, including some courses at no charge.

Discover Dentistry The University of Sheffield

Anyone who's ever had a toothache can attest to the vital role dentists play in ensuring good public health. But behind the cliches of the profession lies a rich

and relevant history waiting to be discovered. On this course, you'll explore the intricacies of what dentists do. Joining Professor Christopher Stokes from the School of Clinical Dentistry at The University of Sheffield, you'll learn the essentials of dentistry from leading dental experts. You'll learn about the different roles on a dental team, explore tooth anatomy and disease, and find out how dentistry differs from country to country. You'll also learn how to become a dentist and get a valuable introduction to studying dentistry degrees.

This course is for anyone interested in dentistry or science and is designed to be enjoyed without prior knowledge. It would be especially valuable for dentistry professionals, or anyone thinking of entering the profession.

Introduction to Dental Medicine University of Pennsylvania

The mouth is the window into human health. This course provides an overview of dental medicine to engage, educate, excite and assist you in improving the oral health of your patients and members of your community. We will review topics in dental medicine including scope of the field, what to expect in function, and some of the many ways that dysfunction may present for different patients. This will include discussions of mouth, jaw, and tooth anatomy, pathology, and treatment. We will talk about differences between patients and the unique roles that different members of the dental field may play in treatment depending on the patient and condition. This course starts from basic concepts and proceeds to review trends in current research and technology. We offer scientific background, some skills for patient evaluation and interview, and some suggestions for further learning for those interested in or involved in dental education

7. Useful additional resources

There are loads of other great things out there that you might want to look at to develop your interest and strengthen your application, from videos to podcasts, to websites. Here are a few suggestions:

Make sure you know the <u>General Dental Council principles</u> and try and work them into your interview answers

UCAT: https://www.ucat.ac.uk/

Evidence Search - has a section dedicated to oral and dental health

<u>Clinical Knowledge Summaries</u> - provides quick answers to real life clinical questions based on the evidence

<u>Evidence Based Dentistry</u> - delivers the best available evidence on the latest developments in oral health.

Further Reading

Staircase 12: https://www.univ.ox.ac.uk/applying-to-univ/staircase12/

Podcasts:

- <u>The Dental Guys Podcast</u> dedicated to teaching and educating dentist on the latest in dentistry.
- <u>Life and Dentistry Podcast</u> listen about life as a dental student and dentist ranging from personal struggles to development of our own dental careers.

Lectures:

- General Haig's Toothache: Battlefield Dentistry in World War One an insight into why battlefield dentistry became important.
- <u>Performing Medicine</u>, <u>Performing Surgery</u> this lecture explores ideas that challenge the assumption that the practice of medicine relies solely on connecting with other clinicians.

Journals:

- <u>British Dental Journal</u> a journal exploring the key ideas, developments, opinions and issues in dentistry.
- <u>Journal of Dentistry</u> the leading international dental journal within the field of Restorative Dentistry. Placing emphasis on publishing novel, high-quality research papers.

Websites:

- The Medic Portal a summary of current news stories relating to health and medicine. Rather than reading multiple news sites, all of the key information can be found once a week over on the weekly News Summary blog.
- MedLine Plus Dental Health Section up-to-date, quality healthcare information in understandable language from the US National Library of Medicine (NLM), aimed at health professionals as well as patients and their families
- Free course on how the NHS works:
 https://www.futurelearn.com/courses/the-nhs-explained
- Free Open University courses:
 https://www.open.edu/openlearn/science-maths-technology/science/biology

8. Related courses

At university, there are loads of different combinations of subjects that you can do. Maybe you might find one of these alternatives more interesting? A few ideas are listed below with a sample link, but in most cases there are lots of universities that offer these different combinations so make sure to have a good look around!

Diagnostic Radiology

Diagnostic radiology refers to the field of medicine that uses non-invasive imaging scans to diagnose a patient. The tests and equipment used sometimes involves low doses of radiation to create highly detailed images of an area. Therefore, an in depth understanding of not only how to use radiation safely but also ensure the safety of patients and family members. The course entails an in depth study of areas such as anatomy, ethics and management. Degrees normally involve time spent on placement in facilities such as NHS hospitals and GP surgeries.

Pharmacology

Pharmacology is the study of drugs and the effects they produce upon the human body. These drugs could be medicines, food additives, agricultural compounds such as insecticides, natural hormones, and even animal toxins and venoms. On your degree you will typically study the effects that these drugs have on tissues, cells and molecules within the body, including the potential toxic effects of medicines used in the treatment of disease. Courses will often examine both the actions of current drugs and the development of new drugs.

While there will be plenty of practical laboratory work on a pharmacology degree, there are fewer opportunities for clinical work experience than on the majority of healthcare degrees. However, many universities offer the option to take a placement year, so if industry experience appeals to you, be on the look-out for sandwich courses.

Nursing

You'll need to demonstrate a high level of technical ability and the right soft skills for the job. The most important A level is normally biology. Other subjects to help your application include another science (chemistry), or a social science (psychology, sociology).

Nursing is well known for being a challenging job that requires long hours and hard work. But playing a role in saving lives, and caring for the wellbeing of patients and their families, offers an outstanding level of job satisfaction.

No two days are ever the same. If you thrive on pressure, variety, and being kept on your toes, nursing is a career that will suit you to the core. You'll learn all about health science, social science, technology, theory, care, support, and everything in between. You can specialise in particular disciplines, but whichever route you choose, you'll leave university with the ability to make a positive impact on people's lives.

9. Example interview questions

As you will know, applicants for Dentistry have to take an interview in order to get a place. It is normal to get open-ended questions, as well as being given charts or pieces of writing to analyse. Here is a sample of the kind of questions you might get asked. Remember, you're supposed to not know the answer! They often deliberately choose topics that they think no one will have studied in order to make the questions fair. What they're looking for is to see how you think under pressure, and how you can present your ideas and your logic.

Most universities and dental schools will ask variants of the common questions and they'll expect you to have a well thought out answer that clearly shows your motivation for studying Dentistry.

There's really no excuse for poor answers to questions such as "Why do you want to study Dentistry?" or "What attracted you to this university?"

Read through your personal statement

Many interviewers will use your personal statement as a basis for some of the questions they ask you. This means you'll need to know what you said and be prepared to expand on anything you've discussed or described.

Bare this in mind when you're writing your personal statement and leave yourself room to discuss situations, experiences, or examples. If you tell the admissions tutor absolutely everything in your personal statement you'll just end up repeating yourself in your interview.

Thoroughly research the university you're interviewing with

If you don't do thorough research then you'll be caught out by the "Why do you want to study at this university?" question.

Talk about the particular aspects of the course that interested you, such as awards they've won or research they've been commended for.

Then move on and talk about the university as a whole and the student experience. A university's social media pages are a good place to get an idea of what current students enjoy about a university and university town.

Don't memorise your answers

Although preparation is everything, don't prepare so much that you memorise your answers.

It's better to have an idea in your mind of what you want to say, with some key points to support your answer, rather than have a stock answer for every question.

An interview is about finding out what you're like as a person. The interviewer(s) doesn't want robotic answers or to hear you churning sentences that sound like something you read on the internet.

What are some common interview questions for a Dentistry course?

Here are some of the most common interview questions asked to prospective Dentistry students:

- Why do you want to study Dentistry?
- If your application to Dentistry is unsuccessful, what would you do?
- What are the negative aspects of being a dentist?
- Describe to me your understanding of dental caries
- Do you believe that dental implants should be provided on the NHS?
- Describe to me how you would tell a patient that their tooth needs to be extracted
- Why do dentists recommend the fluoridation of water supplies?
- What are the arguments against fluoridation of water supplies?
- How would you organise a campaign to improve dental health?
- What can you tell us about modern advances in Dentistry?
- Why do you think so many NHS dentists are going private?
- Why do you want to study Dentistry rather than Medicine?

Why do you want to study Dentistry?

Answer Guide

This question is common amongst Dental interviews so make sure you have considered it in your preparation for interview.

You need to give a realistic view of what Dentistry involves and what studying Dentistry is like. You can draw this information from your work experience, university open days and by reading the latest Dental news.

Give a balanced answer of both the negative and positive aspects of studying Dentistry.

Keep your answer short and succinct, if possible give examples of your experiences and why this has encouraged you to study Dentistry.

Show that you have an interest in science and that you are committed to lifelong learning.

Try to get across your interest in working with people and interacting with patients as this is something that is required of every dentist.

If you have an interesting hobby that shows manual dexterity you can also bring this into your answer. Relate this back to how Dentistry is a hands on career with a creative element.

Common Mistakes:

Waffling in your answer, try to keep your answer short and to the point. This will show that you have thought about your answer thoroughly.

Referring to members of the family who are currently Dentists. Whilst this might have inspired you to pursue a career in Dentistry, it is important to reflect on why you personally want to be a Dentist.

Referencing to financial rewards associated with a career in Dentistry. Whilst this might be a motivation for some people, there are careers that involve less stress and work but are more financially viable.

If your application to Dental school is unsuccessful, what would you do?

Answer Guide

This question assesses your true commitment to studying Dentistry. Therefore, your answer should reflect this.

Have a think about things that you could spend a year doing whilst reapplying that will strengthen your knowledge of Dentistry. For example, working at a Dental practice.

A career in Dentistry often involves setbacks. Use your answer to demonstrate how you can gain something positive from a negative experience. Do this by emphasising that you will stay committed.

Suggest that you would spend time in environments similar to Dentistry, such as volunteering at a care home. This will give you patient contact and help you to improve your communication skills.

Common Mistakes

Saying that you would not reapply and would instead follow another career path. This shows a lack of drive and commitment to the career.

Assuming that your application will be successful is also a mistake. This shows a degree of arrogance and being immune to failure.

What are the negative aspects of being a Dentist?

Answer Guide

This question gives you the chance to demonstrate that you understand the realities of being a Dentist. Draw on your experiences from your work experience: what challenges are there to being a Dentist?

Ensure that you keep a positive tone to your answers, and enforce that you feel that the positive aspects of the job outweigh the negatives.

An example of a negative aspect could be dealing with the tight time demands of being a Dentist. Describe a way in which you could overcome this, for example allocating the correct time required for procedures and not rushing.

Another example could be dealing with anxious and phobic patients. This could be overcome by building a rapport with patients and working on your communication skills.

Common Mistakes

Indicating that there are no negative aspects in your answer. This is an unrealistic view point and will suggest that you have not thought about your answer.

Not suggesting ways in which you could overcome these problems in Dentistry and suggesting that you are not up to the challenge.

Describe to me your understanding of Dental caries.

Answer Guide

Interviewers will not expect you to have a detailed answer but would expect a basic understanding on dental caries as this is one of the most common complaints for patients

Explain that dental caries or tooth decay is caused by bacteria. Bacteria create an acidic environment in which teeth are demineralised.

A good answer will also indicate that this can be prevented by good oral hygiene practices that remove plaque. With good plaque control, bacterial is unlikely to cause demineralisation of enamel.

Common Mistakes

Not knowing what dental caries are or what causes them. As this is a basic concept in Dentistry it will indicate that you haven't researched dental problems sufficiently.

Panicking – don't be intimidated by this questions, interviewers are expecting an overly detailed answer they just want to know that you have a basic understanding of dental decay.

Do you believe that dental implants should be offered on the NHS?

Answer Guide

Start by indicating that dental implants are a relatively new advancement in Dentistry and involve placing a fixed alternative to removable dentures.

In some cases, implants are currently being given to patients on the NHS. This is if they have a medical need such as no longer having the support structures in the mouth required for dentures.

Indicate that the cost of implants are very expensive due to the cost of the equipment and the high number of appointments needed with dentists.

Use this information to draw your own balanced conclusion about whether or not you agree with the current NHS system.

Common Mistakes

Having no to very little knowledge of dental implants. Interviewers would expect a basic level of understanding of dental implants. Be sure to research about this before your interviews.

Giving a one sided opinion. It is important to discuss both the pros and cons of offering implants on the NHS; it is not necessarily required to know the current protocol but be sure to tackle the question from both viewpoints.

If you have a strong opinion, try not to indicate this, give a balanced answer!

How do you cope with work when you are being affected by personal problems?

Answer Guide:

State the importance of putting your personal life to the side when you are practicing dentistry.

Have a think about ways you cope with stress in your life currently and how you achieve a work life balance.

Talk about a situation, how you overcame it and what you learnt from the experience that you can apply to dentistry.

Common Mistakes:

Showing little or no self-awareness and not knowing of ways that you can maintain work/life balance suggests that you might not be ready to face the demands of dentistry.

Not understanding the importance of controlling your emotions when treating patients.

Describe to me how you would tell a patient that their tooth needs to be extracted.

Answer Guide:

This question assesses your empathy towards patients. A good place to start is by discussing how traumatising it can be for a patient to find out they need an extraction.

Emphasis how you need to be clear about why the tooth needs to be extracted and also understanding of the patient's emotions.

It is important that you make sure that the patient understands what you are saying to them, so a good way to determine this is by asking your patient questions.

Common Mistakes:

Saying that you would state the facts and would not support the patient or show empathy.

Getting emotionally involved in the situation – it is important to maintain a level of professionalism with patients.

Do you believe that all dentistry performed in the NHS should be free?

Answer Guide:

Start by showing your knowledge of dentistry in the NHS currently, such as the different pay bands and what is included in each of them.

The NHS is currently only free to some, such as those on tax benefits, under 18 or pregnant.

Indicating that NHS dentistry should be free for everyone would mean that the funding would have to come from another source – so be prepared to discuss that.

Come to a balanced conclusion, weighing up the pros and cons of charging for dentistry in the NHS.

Common Mistakes:

Not understanding the current NHS pay system shows a lack of knowledge and will make it difficult to discuss the issue with the interviewer.

Having a strong one sided opinion or having no understanding that if dentistry is free on the NHS then the money will need to come from other sources.

Tell me about a recent piece of dental or medical news you have read recently.

Answer Guide:

Studying dentistry requires life-long learning so it is important that you stay up to date with research, the NHS and dentistry news. You can do this via The Medic Portal's weekly news summary on our blogs.

Give your opinion on what you have read and link it to its impact on dentistry. This shows your understanding of dentistry as a career. Give a balanced answer and don't be too strongly opinionated.

Common Mistakes:

Not reading the news or anything dentistry related. Interviewers will expect you to be keeping up with the news to show your commitment to the career.

Being overly opinionated. It is difficult to give an accurate opinion on dentistry news when you are just starting out and do not have much experience in the area.

How would you go about treating a non-English speaking patient?

Answer Guide:

This question is testing your knowledge of communication and how it applied to dentistry so make sure your answer reflects this.

Think about non-verbal communication skills such as body language and eye contact. This will give you a clue as to how much your patient understands.

An important issue is informed consent. To tackle this you could hire a translator for the appointment to make sure that the patient understands the treatment, implications and benefits of the treatment.

Common Mistakes:

Getting confused and panicking over the unusual question. When you are asked an unexpected question, spend a moment thinking about it before answering.

Not understanding the importance of communication in dentistry. Patient understanding is key to ensuring the fully informed consent is given.

Other questions:

Describe to me how you would tie up your shoe lace without making any hand gestures

You have just run over your neighbour's cat – how do you break the news?

You are travelling with a group of friends on the underground, one of your friend's doesn't manage to get into the tube and is left at the platform. You have no phone signal, what do you do?