

STEM Sample Personal Statements

Note: These sample personal statements from PISES students that applied to the UK are to be used as a general guide. Copying or plagiarizing off of these can cost you your entire application, as UCAS can detect similarities easily.

PHYSICS Applicant (MPhysics + MMaths – Undergraduate Masters courses)

As I started growing older, I started becoming more curious. Why do we exist? How do we exist? Did we form from the big crunch or did our universe mark the birth of something which we call the Bigbang? Such thoughts always made me ponder yet I did not understand how this all worked until I came across an article, 'World's largest atom smasher may have just found evidence for why our universe exists.' Digging a little deeper into the different researches, I knew Physics was the course for me. This wasn't a subject of belief, but a subject of evidence.

Having studied physics for almost 7 years, I managed to develop a love for how it was so well blended into nature and technology. I wasn't always fond of the subject as I didn't understand the simplest of things, like why did the moon always tend to follow me or why did the sky not appear to be green or purple, why did my calculator light up when I switched it on or even something as trivial as to how did my washing machines drum rotate to dry my clothes.

However, as I entered my senior year, my curiosity got the best of me and I started spending more time researching about theoretical physics. I slowly started realizing there was an answer and a logic behind each and every question I once had. One of the most recent studies I came across was the return of the quantum state computer a fraction of a second into the past. Its researchers also calculated the probability of an electron in interstellar space going back in time. This could open the doors to another dimension which hasn't yet been touched, and the thought of finding the unknown seems very exciting to me. There was another study that I discovered about radio signals coming from deep space. It still is an enigma as to why and how they came into form, was it from another species or was it an alien? I always thought 'I wish time would stop' was simply an expression but little did I know that time actually stops at the black hole while space-time moves forward. Was Stephens Hawking theory about an alternate universe being present on the other side of the black hole valid or not, or does the black hole consist of nothing but a singularity? Guess we will never know till we unravel the mystery.

These studies spiked my interest and I knew then this was something big and I wanted to be a part of this. I wanted to be involved in helping change the world for the better and I knew I could achieve this by following my passion for Physics. Slowly my doubts were starting to be answered but they just led to more questions.

Coming from a rural background and being raised in the midst of a bustling city, helped shape my views differently as I experienced both ways of life, the backward and the more advanced. Innovation and technology haven't yet affected rural areas in a very significant way, and I'd like to make that happen by making technology more accessible through research.

We recently held a fundraising environmental bake sale. It helped me in further developing my management and communication skills and I learned a lot about dealing with people in the process. My problem-solving skills and my dedication to my work I believe renders me capable of this course. I've had experience in hosting several events held by our school and that has given a boost to my public speaking skills and confidence. My hardworking and disciplined nature has helped me in staying in the school's proctorial board for a long time. I'm also an amateur artist who particularly enjoys real life sketching and painting and I believe practicing arts has made me a more observant person, someone who pays attention to the tiniest of the details.

This applicant received offers from all their choice universities including:

- 2 conditional offers from the University of Manchester for Physics with Maths
- A conditional offer from the University of Edinburgh for Physics
- A conditional offer from the University of Bristol for Physics
- A conditional offer from Durham University for Physics

CHEMICAL ENGINEERING Applicant (MEng Chemical Engineering – Undergraduate Masters degree)

A page in one of my father's old books from medical college, Rapid Interpretation of EKGs, rings most familiar when it comes to things that first introduced me to engineering. A paragraph on the first electrocardiogram machine had caught my eye because I had recently learnt of the motor effect in Physics, and to see a setup so simple eventually revolutionize medicine had left me in awe. It was then that I also realized I should not be apologetic for pursuing whatever made me curious. Amongst South Asians, there is a strong prejudice when it comes to women in engineering disciplines, and a belief that women should be redirected into fields most suited to their compassionate natures. While I find it flattering to be deemed 'compassionate' solely for being born female, I also think there is no greater misconception than that engineering has no place for said compassion. I found just how compassionate engineering can be when I was first introduced to accessible science through a TedxTalk by Manu Prakash, a bioengineering professor at Stanford. However, I soon realized how feasible this concept was with other fields like chemical engineering as well, and so wanting to learn how to improve accessibility to basic

resources and communicating science to the general public became my main motive for applying to Chemical engineering. In one conversation with my uncle, he talked about how back home in Pakistan, people from rural backgrounds often make claims to scientific breakthroughs when they really only have stumbled upon years-old discoveries such as steam engines and biofuels far too late. While this is true, it only reinforced my belief for a dire need to facilitate such areas with the basic necessities that they have full rights to, which may otherwise be difficult to provide. Later, I also stumbled upon a project known as the Eco-Cooler that originated in Bangladesh, meant to serve as an 'electricity-free' air conditioner. Its structure was made entirely out of the necks of plastic water bottles pushed into holes in a large area of cardboard, and cooled air moving out of the bottle neck through compression and expansion. While on another occasion, I happened to catch a documentary on TV on a boarding school in India that used the large amounts of food waste it produced to provide energy for heating through biogas. Both these things made me think about how effectively waste material was utilized in the process of either providing cooling or energy, and how thermodynamic effects came into play as well to create something so useful. Essentially, what I got out of this was that chemical engineers not only come up with methods to provide cleaner sources of energy but also to minimize the energy requirements of existing daily processes. So as someone who enjoys problem solving especially when calculations are involved, I felt this was exactly the kind of course I wanted to try my hand at. My Mathematics, Physics and Chemistry A levels and the experience I have with titrations in our school lab have also given me the confidence to consider such an academic subject for my higher studies. As a science student, I also believe that we need to reform the way we convey and teach factual science so that it could be understood even by laymen. This is why apart from academia, I enjoy participating in projects where I can express my point of view or present information. This includes my experience in writing for the school newsletter where I was handling tight deadlines alongside my schoolwork, participating in the awareness campaign for our school's Bake sale and even designing a brochure highlighting the plight of Pakistani street children. Furthermore, I enjoy dabbling in linguistics and when I learnt how similar Korean was to Urdu, I began teaching myself the language and am now fluent enough to hold basic conversations and participate in online discussions teaching both Korean and English.

This applicant received:

- A conditional offer from the University of Manchester
- A conditional offer from the University of Edinburgh
- A conditional offer from UCL (University College London)
- A conditional offer from University of Birmingham
- An interview call from Imperial College London

