What inspired me to do a degree in physics

Business, Career

No other subject can explain why we can do the things we do, like physics does. It teaches us many different ideas from the interaction between objects to the oscillations of waves. Our planet is built around physics from the energy transfers which provide power to the circular motion in cars. The many in real life applications of physics excites me.

Deciding to attend classes on relativity, that my college had provided, inspired me to do a degree in physics. These classes taught me how Einstein theorised his theory of relativity. Learning that enormous masses warp time and space to create a gravitational force fascinated me as I am keen to learn about how the universe behaves. In my quest to learn more about the universe, I attended qauantum mechanic lectures delivered at my college in order to learn more about the the behaviour of the universe at the subatomic level. These lectures gave me an insight on some of the work that is done while doing a physics degree such as the wave function, which describes the state of the electron within an atom.

When I was learning optics, I was curious about how optics are used in real life situations. This led me to research a project by NASA called Smap, this has taught me how we can use physics to benefit our world in the present such a simple predicting droughts and crop yield by measuring soil moisture, this showed me that satellites are used for more than just taking pictures. This amazed me as I want to help the population, and learning about this has showed me the opportunities I can get from physics after University.

After researching this project, I wanted to learn more about space, as the idea of an undiscovered place excited me. Consequently, I began an online

course on Astronomy: Exploring time and space which was taught by professor Chris Impey. Analysing large pieces of data is a massive part of physics, this course has taught me the skills to extract key information effectively which will be helpful at studying physics at university. Learning about how sub-atomic particle interacted at school intrigued me, as I was taught that there was nothing smaller than a particle, learning this persuaded me to read a book called ‘ A map of the invisible’ by Jon Butterworth. One key concept that caught my eye, was that most models or theories aren’t complete, such as the model of the atom which has sub-atomic particles. This thrilled me, as it seemed almost everything was discovered, but reading this has given me an insight on how much we do not yet know. Dark energy is another unknown idea thrown about in this book, it’s the reason our universe is constantly expanding and the reason our universe will eventually end.

Studying maths and further maths has helped me dramatically in physics, as there are many mathematical techniques used in both subjects such as differentiation and trigonometry, which are vital in mechanics and many other topics. Furthermore, just learning maths has made calculations simpler to understand and complete. One of my biggest achievements in maths was achieving a silver in the UKMT challenge. Chemistry and physics are heavily interlinked, so studying chemistry at As level has helped me improve on skills such as interpreting graphs, which assisted me in physics instrumentally as graphs are used abundantly to represent pieces of data. Moreover, topics such as the ideal gas equation and excitation were used in both subjects, which allowed me to master these topics.

I tutored a GCSE student which demonstrated my ability to break down complicated problems and explain them in a simple manner. I believe I am suitable to study physics at university as I have shown the skills and knowledge required for a degree in physics. Showing I am an ideal candidate for physics at university.