

## Cathal Keane – Biochemistry Graduate

Hi! My name is Cathal and I graduated from biochemistry in Trinity College in 2020. Now I work as a clinical biochemist in Beaumont hospital, monitoring the progression of disease in patients with multiple myeloma.

What I liked most about my course was the amount of choice that I had from the very beginning. I got to study modules that I never would have considered before college. The course structure is based on studying modules in your first two years which then lead to a variety of different disciplines. I picked modules from the biological and biomedical stream primarily which made me eligible for biochemistry. However, I also got to study maths, geology, animal behaviour and environmental science which broadened my horizons. Many other students completely changed the path they were taking through the degree once they did these modules. That's why I love the idea of a general science degree, there are so many options at the end and there is so much time to pick the one you want to do. It removes the pressure from leaving cert students who are still unsure of what subjects they like.

What I disliked about general science was the size of the course. Because there are fifteen disciplines to choose from, in first and second year we were all put together. My chemistry lectures had over 500 people in them. I found that sense of anonymity very difficult, especially at the start when you are trying to make friends. When I specialised in biochemistry there were only 24 students in the class, and it was only then that I really felt a sense of companionship within my course. Before that, my friends were the people that I lived with.

I wish I knew about the fast pace of lectures before I started. The first week or so it's really a recap of leaving certificate material to get everyone up to the same level, but after that the pace really picks up. It was a shock to the system for me really. I think it's important to keep on top of it from the start. Especially in modules like chemistry and maths where rote learning and cramming aren't really possible because exams are based on understanding.

There are a huge number of employment opportunities from the course, many that I wasn't even aware of. Some people choose the route that I did, working in healthcare in a clinical laboratory setting. Many others work for private companies such as Pfizer, Novartis and Roche where their roles include drug design and analysis of drug metabolism. Postgraduate medicine is another very popular option as is further study in the field of biochemistry. About 30% of students go on to do PhDs from the course in Trinity. Outside of the laboratory setting there are other career prospects. The transferrable skills such as data analysis, problem solving and critical thinking are really something that you have to develop throughout the course. This makes biochemistry graduates employable as public servants in government departments as well as in consulting firms. Some students even progress to do chartered accountancy exams. I could talk all day about where graduates end up working because there are so many opportunities.

My advice to my first year self would be to keep on top of lectures and do not let content build up, because within this course cramming is very difficult because it is more based on understanding. In addition, preparing for labs is very important. At some point students are examined on practical skills, so ensuring you understand and can perform basic biochemical techniques is vital.

The highlight of my time in college was my final year capstone project. I worked in an immune metabolism lab and learned so much. I felt like all of the teaching labs and content that I was studying built up to the semester I spent carrying out research. Once the thesis and presentations were completed, I really felt like I had made a valuable contribution to the scientific knowledge. It was an excellent way to wrap up four years in college!