

TR061 Chemical Sciences

Year 1 and 2 Year 3 and 4: Degree options **Medicinal Chemistry Medicine** Biology Chemistry **Materials** Geosciences Chemistry **Mathematics Chemistry with Molecular Design Molecular Modeling Physics** Chemistry with Biosciences Industry Nanoscience

Science at Trinity

Faculty of Science, Technology, Engineering, Mathematics

Chemistry is a creative and central science, dealing with challenges that span the physical and life sciences. It is found and used everywhere from the creation of new materials and processes through to advancements in medical health and diagnosis of disease.

A chemistry-based qualification provides students with the relevant skills and knowledge to open doors in research, medicine, education, industry, finance, consultancy and more.

Course Code: Places 2022/23: Degree Awarded: Degree Type: NFQ: Awarding Body: TR061 86 B.A. (Moderatorship) Honours Bachelor Degree Level 8 Trinity College Dublin, The University of Dublin

tcd.ie/science

Trinity is the first and only Irish university to join the prestigious ranks of the League of European Research Universities (LERU).

As well as practical knowledge of the subject, chemistry students develop many other transferable skills that are valued by both employers and the wider community. These range from critical thinking and problem-solving to communication and creativity. Nobody knows what the jobs of the future will look like, but chemists will be needed to tackle problems in

human health, sustainable energy, technology, food management and the environment. Academics at the School of Chemistry are at the forefront of cuttingedge research and are contributing to ground-breaking advances that benefit society. These include nanotechnology, drug-delivery, energy storage and computational modelling.



Structure of TR061 Chemical Sciences

In the Chemical Sciences stream students will study the core concepts that are fundamental to all of chemistry including topics in physical, organic and inorganic chemistry. Students will receive a strong grounding in mathematics and will be able to expand their scientific knowledge and to pursue their individual interests by choosing from a cohort of approved and elective modules on topics such as physics, chemical biology, geoscience, history and philosophy of science.

In the third year, students specialize in one of the five moderatorships offered in this stream: Chemistry, Chemistry with Molecular Modelling, Chemistry with Biosciences, Medicinal Chemistry and Nanoscience¹. Small group teaching from academic experts who are actively researching in these subjects creates an exciting teaching and research-led environment where current state-of-the-art research is discussed together with fundamental concepts.

Students can also experience the wide range of knowledge and investigation available throughout the university by choosing an elective module from a selection that highlights major research themes from across all faculties. In the fourth year students choose from a selection of modules on advanced topics within their discipline. They will also undertake a research project in Trinity or in a research laboratory in another university, research institute or industry partner.

This offers students the opportunity to gain international experience, giving them the choice to pursue their final-year research project abroad. If you want to understand the workings of the world around you, then chemistry is for you!