



Trinity College Dublin
 Coláiste na Tríonóide, Baile Átha Cliath
 The University of Dublin

School of Computer Science & Statistics (SCSS)
 Faculty of Science, Technology, Engineering and Mathematics (STEM)

BA (Mod) Computer Science (Joint Honours)

Study Computer Science with Business, Economics, Geography or Linguistics

Computer Science Joint Honours

Business	Economics
Geography	Linguistics

Special Entry Requirement in Mathematics		
Leaving Certificate	H4/O2	Mathematics
Advanced GCE	(A Level) Grade C	Mathematics
GCSE	Grade A/8	Mathematics
International Baccalaureate	HL Grade 5 SL Grade 7	Mathematics

This joint degree provides its graduates with the knowledge and skills necessary to work in the technical field of computer science. The programme, which is of four years duration, will prepare students for challenging careers applying computing knowledge and skills to problems in the domain of their other subject, and more generally. It will also position them for postgraduate study and research if that is their desire.

In order to obtain an adequate grounding in each discipline, students will be required to complete certain mandatory modules, largely taught in the Freshman (first two) years. The Sophister (third and fourth) years will allow students to choose among various options in Computer Science and the accompanying programme, although there will continue to be minimum requirements in each discipline.

From a computer science perspective, at the end of the course graduates will be able to design, implement/engineer and evaluate computer-based systems, processes and programs/applications to meet desired objectives and specifications. Overall at the end of the course graduates will be able to apply their knowledge of computer science and mathematics, along with their problem solving skills, in new and familiar environments, both within the disciplines of Computer Science and the chosen joint programme in the wider context of the modern workplace.



All these programmes provide opportunities to study abroad in third year.

Course Code: TR188

Computer Science & Business (Joint Honours)

Why study Computer Science and Business?

The computer science subjects in this programme will build upon your problem solving, logical and mathematical skills and challenge you to develop a deep understanding of the science of computers. The business subjects will develop your knowledge, management ability and understanding of the operations of organisations and their critical role in society and the many roles available within organisations like marketing, organisational behaviour, human resources and finance. At the end of the course graduates will be able to apply their knowledge of computer science, business and management, along with their problem solving skills, in new and familiar environments, both within the disciplines of Computer Science and Business and in the wider context of the modern workplace.

Computer Science and Business: The course for you?

Computer Science and Business at Trinity is a challenging and exciting course with a focus on innovation and cutting-edge technology. To get the best from the course you need to be interested in exploring how organisations work and how they can be improved and in developing clear logical ideas about situations and about how to develop feasible solutions for computing to deal with these situations. No prior knowledge of computer science or business is assumed.

Computer Science and Business at Trinity

Computer Science at Trinity is ranked number 1 in Ireland, top 30 in Europe and 104 worldwide while the Business School is ranked number 1 in Ireland, (QS subject rankings, 2022). Over a period of more than 50 years, both the School of Computer Science and Statistics and the Trinity Business School have earned a strong international reputation. They have enduring partnerships in education, research and industry across the globe.

Pathways

The pathways available are Major with Minor and Joint Honours. See Trinity prospectus for further information.

Graduate skills and career opportunities

Government and industry have identified a need for more graduates with Computer Science and Business skills. Graduates of this programme have secured employment in a variety of roles and areas. They have been hired by multinationals, both nationally and internationally, such as Google, LinkedIn, Twitter and by consultancy and accountancy firms such as Ernst & Young, Accenture, MRBI, PwC, and KPMG. Our graduates are also much sought after within the public sector and for small and medium sized businesses. Many students have set up and launched their own businesses, some of which have won entrepreneurship awards. Other students have pursued Master's and Ph.D. studies in business and computer science disciplines.

Course Code: TR197

Computer Science and Economics (Joint Honours)

Why study Computer Science and Economics?

Economists explore how people and institutions behave and function when producing, exchanging and using goods and services. Economists' main motivation is to find mechanisms that encourage efficiency in the production and use of material goods and resources while at the same time producing a pattern of income distribution that society finds acceptable.

The computer science subjects in this programme will build upon your problem solving, logical and mathematical skills and challenge you to develop a deep understanding of the science of computers.

At the end of the course graduates will be able to apply their knowledge of computer science to understand economics and model economic systems. They will also be able to apply economic principles to innovation in computer science.

Computer Science and Economics at Trinity

The School of Computer Science and Statistics at Trinity is recognised for establishing computer science as an academic discipline in Ireland. The School has earned a strong international reputation for teaching, research and innovation. Computer Science at Trinity is ranked number 1 in Ireland, top 30 in Europe and 104 worldwide. Economics at Trinity prides itself on its small-group research-led teaching. Economics at Trinity is in the top 150 worldwide (QS subject rankings, 2022).

Pathways

The pathways available are Major with Minor, Joint Honours and Single Honours Economics. See Trinity prospectus for further information.

Graduate skills and career opportunities

The study of economics and of computer science both develop exceptional logical reasoning and analytical skills which are highly sought after by a range of employers in business, financial technology, public service, and academia. Graduates of this programme will particularly appeal to technology firms and financial institutions.





Course Code: TR240

Computer Science and Geography (Joint Honours)

Why study Computer Science and Geography?

The combination of Computer Science and Geography allows students to combine computational skills and geographical knowledge to address important issues on our planet. Geographical information systems (GIS), for example, underpin decision making in urban planning, land use planning, energy distribution, transport management, infectious disease control, etc. Graduates of this programme will be well placed to develop the next generation of GIS; these may, for example, incorporate large volumes of IOT sensor data, integrate diverse forms of data, and present advanced visualisations, all of which developments would be driven by computer scientists who understand geoscience. Graduates of the programme might apply “big data” techniques to geographic data, for example to predict flooding, to model urban traffic, to explain demographic changes. Graduates with these skills will be at the heart of the design of future smart and sustainable cities and societies.

Why study Computer Science and Geography at Trinity?

This programme at Trinity College Dublin is delivered through the expertise of the School of Computer Science and Statistics and the Department of Geography. The School of Computer Science and Statistics at Trinity is recognised for establishing computer science as an academic discipline in Ireland. The School has earned a strong international reputation for teaching, research and innovation. Computer Science at Trinity is ranked number 1 in Ireland, top 25 in Europe and 104 worldwide while Geography at Trinity was ranked in the world top 150 universities for Geography (QS World University Rankings by Subject 2022). Geography at Trinity is a place of intensive and extensive geographical scholarship in Ireland. We teach and research across the discipline, from development theory to coastal modelling, and from climate change to the social economy, all within different contexts, from Nigeria to New Zealand. We aim to challenge students intellectually and foster and maintain world-class research and teaching in a supportive and collegial atmosphere.

Pathways

The pathways available are Major with Minor, Joint Honours and Single Honours Geography. See Trinity prospectus for further information.

Graduate Opportunities

Graduates from this course will be highly skilled and employable in both industrial and governmental organisations both here in Ireland as well as overseas. Both geography and computer science offer a wide-array of career opportunities for graduates. Both disciplines train you to analyse challenges in a broad range of areas and to provide solutions to them.

“Many of the developments that will make ripples across the globe in years to come will be driven by computer scientists who understand geoscience and possess the technological skills to create solutions. These skills are at the very heart of the design of future smart and sustainable cities and societies. We are excited to watch our graduates develop and see which paths they take in their learning. Some may apply big data techniques to geographic data to predict flooding or model urban traffic, while others may monitor demographic changes or monitor long-term environmental patterns before developing apps that benefit people and the planet.”



Course Code: TR241 Computer Science and Linguistics (Joint Honours)

Special Entry Requirements

Leaving Certificate	H6/O2	in a language other than English or Irish
Advanced GCE	(A Level) Grade D	in a language other than English or Irish
GCSE	Grade A	in a language other than English or Irish
International Baccalaureate	HL4/SL6	in a language other than English or Irish

Why study Computer Science and Linguistics?

Linguistics is the scientific study of language. Linguists investigate how language works; how patterns of sounds, words and sentences combine to convey meaning. Training in Linguistics promotes the critical evaluation of evidence, logical and detailed analysis, and the formulation and presentation of arguments. Studying computer science builds your problem solving, logical and mathematical skills and challenges you to develop a deep understanding of the science of computers. At the end of the course graduates will be able to apply their knowledge of computer science and linguistics, along with their problem solving skills to improve computer understanding and generation of language, to use computing to explore languages, as well as to more general issues of computing and communication.

Computer Science and Linguistics: The course for you?

If you enjoy problem solving, conceptual analysis, mathematics, languages and are interested in combining topics in creative and insightful ways, then this may be the right course for you. It appeals to students with strengths in analytical reasoning. If you are interested in how language works and in how computers can be applied both to study language and to improve communication then this is an ideal combination. No prior knowledge of computer science or linguistics is assumed.



Computer Science and Linguistics at Trinity

Computer Science at Trinity is ranked number 1 in Ireland, top 30 in Europe and 104 worldwide (QS subject rankings, 2022). There is a decades-long tradition of Linguistics teaching and research in the Centre for Language and Communication Studies (CLCS). In both subjects, teaching is research-led: all members of the teaching team are engaged in state-of-the-art research. There is a long history of combined Computer Science and Linguistics study at Trinity.

Pathways

The pathways available are Major with Minor and Joint Honours. See Trinity prospectus for further information.

Graduate skills and career opportunities

Graduates are qualified to work as language specialists, in the language and speech technology sector, as information technologists or software specialists in any of the IT, banking, publishing or multimedia sectors.



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Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Faculty of Science, Technology, Engineering and Mathematics (STEM)
School of Computer Science and Statistics

Course director: Prof Nina Bresnihan
Tel: +353 1 896 1765 Email: undergraduate@scss.tcd.ie
Tel: +353 1 896 1576 Email: geog@tcd.ie
Web: www.tcd.ie/scss



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