

	BSc Computer Science	BSc Data Science & Analytics	BA Digital Humanities & Information Technology	BA Psychology & Computing
<b>Overall</b>	Are you keen to understand the scientific and engineering principles of how computers work and study advanced topics e.g. AI and cyber-security? (CK401)	Do you like mathematics? Would you like to combine statistics with computing for advanced decision making? (CK411)	Are you interested in the humanities? How about applying computing skills for cultural and societal benefits? (CK118)	Are you interested in the psychology of how people use computing devices and how technology can be made more human-centric? (CK121)
<b>Approx. intake</b>	80	35	45	30
<b>Additional entry reqt.</b>	02/H6 in Mathematics	H3 in Mathematics	No additional requirements	02/H6 in Mathematics
<b>Schools / Departments involved</b>	Computer Science	Computer Science (50%) and Statistics (50%)	Computer Science (30 cr.) + Digital Humanities (20 cr.) + Arts Minor Subject (10 credits) choose one from: Archaeology; Béaloideas; Celtic Civilisation; Chinese Studies; Economics; English; Geography; German; Greek; History; Spanish; Italian; Latin; Philosophy; Politics; Religions and Global Diversity.	Computer Science (50%) and Psychology (50%)
<b>Duration</b>	4 years	4 years	3 years / 4 years with placement or academic year abroad	3 years / 4 years with placement
<b>Points</b>	2019 (402); 2020 (468); 2021 (495); 2022(507); 2023 (510)	2019 (509); 2020 (510); 2021 (531) 2022 (465); 2023 (445)	2019 (307); 2020 (336); 2021 (339); 2022 (347); 2023 (328)	2019 (402); 2020 (466); 2021 (488); 2022 (478); 2023 (488)
<b>Work placement</b>	Compulsory	Compulsory	Optional	Optional
<b>Programming</b>	No prior experience necessary	No prior experience necessary	No prior experience necessary	No prior experience necessary
<b>Programming languages</b>	Python, Java, C, JavaScript and Haskell	Python, R, Python, Java, C, JavaScript	Python, JavaScript and HTML	Python, JavaScript
<b>Differentiating modules</b>	Artificial Intelligence, Computer Architecture, Data structure & Algorithms / Compilers, Middleware, Programming, Security, Systems & Networks...	Distributed / Big Data Algorithms; Machine learning, Data Visualisation...	Internet Computing; Information Systems and Electronic Commerce; Student Learning in the Digital Age; Digital Tools & Methodologies...	Interaction Design, Social Computing, Human-Centred Computing, User Experience (UX), Applied Cognition, Research Design and Statistical Analysis...

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<b>Careers opportunities (but not limited to)</b>	Mobile/ Multimedia Development; Project Management; Security Analysis; Software Engineering and Development; Systems Administration; Systems Development; Technical Consultancy; IT Analysis...	Big data Development; Business Analytic; Customer Analysis; Data Analysis and Reporting; Data Engineering; Data Science; Data Science and Modelling; Data Warehouse Management; Fraud and Risk Analysis ...	Digital Archivist; Digital Content Curation; Digital Publishers; Digital Resources Specialist; Software Localisation / Languages....	The demand greatly exceeds the supply for qualified graduates to: <ul style="list-style-type: none"> <li>Evaluate the effectiveness of technologies such as video games; social media, interactive exhibitions; simulated environments e.g. VR</li> <li>Invent interfaces that interpret and mimic human senses, i.e. touch, speech, gestures e.g. robots, personal assistant such as Alexa, Siri.</li> </ul>
<b>Sample companies / types of recruiting graduates</b>	Apple, Cisco, Credit Suisse, Dell EMC, IBM, Microsoft, Pilz, VMware, Xerox ...	AIB/BOI, Amazon, Apple, EMC, Ernest & Young, Facebook, Google, Government Departments / State Agencies, Paddy Power, PWC, Tesco....	Museums, Social Media Companies, News media e.g. Google, Apple...	Companies developing hardware & software to meet end-user needs across a wide range of industries, including Apple, Jaguar/Landrover, Logitech, Google, Instagram, Teamworks, Accenture, Ericsson, Deloitte.
<b>Further study in CS and Psychology related areas</b>	1. MSc Computer Science, 2. MSc Data Science & Analytics, MSc (research) / PhD (2H1 in UG degree)	1. MSc Computing Science MSc (research) / PhD (2H1 in UG degree)	MSc Research / PhD (2H1 in UG degree)	1. Higher Diploma in Psychology – CKA01 is a conversion course which makes you eligible to become a graduate member of Psychological Society of Ireland. 2. Higher Diploma in Applied Computer Technology – those who achieve a 1 H can apply for the MSc Data Science & Analytics and MSc Computer Science 3. MSc Interactive Media MSc Research / PhD for those who achieve 2H1

### BSc Education: teacher qualification (4 years)

- **Computer Science and Maths: H3 in Maths required**
- **Computer Science and Chemistry**